2018

EN IT FR DE ES

Product Guide

European Community

North America 60Hz

South America 60Hz

International 50Hz

AERMEC



Products Guide 2018



The company

Giordano Riello, founder and chairman of Aermec, assisted by his son Alessandro and daughter Raffaella, has solidly associated the Company name with precise values:

Respect for the environment by using new eco-friendly refrigerants as well as innovative installations using water as the carrier fluid.

Noise pollution control with low-noise emission products, which undergo scrupulous testing before being put on the market.

Energy saving, the great challenge of the Third Millennium, with the development of combined heating and air conditioning systems where appliances are used only as and when necessary.

Health care special filters trap the smallest particles in suspension and the Plasmacluster system cleans the air of dust mites and moulds, making for a cleaner, healthier environment and with the new germicidal lamps eliminating all virus and batteries.

Hystory

1961 Giordano Riello sets up Riello Condizionatori, initially producing for contractors only. The story begins.

1963 The Aermec brand is born and marks all future company products designed and manufactured on site. The brand name gains a stronghold as a major product name in Italy and throughout Europe.

1970 Aermec can already supply fresh and warm air. Aermec presents the first dual section conditioner: the first "split-system". Fancoil production starts.

1973 Aermec receives European Award Gold Mercury.

1980 The Eighties sees the development of water chillers and air handling units.

1990 The Nineties mark the definitive consolidation of the company on the market. The Aermec brand is associated with advanced technology and high quality design.

1998 The name makes the company. From 1 January Aermec becomes the company name as well as product brand.

2000 The company consolidated its leadership in the production of fancoils, and laid the technological and production basis for strong growth in the field of high powered air-conditioning systems.

2002 Design and technology: Aermec launched Omnia a new generation of fancoils, designed for domestic applications. OMNIA is the result of co operation with a worldwide prestigious designer.

2004 The international market ask for number and Aermec answer. Giordano Riello make the producing system more technogical. High producing, quality and assistance: the success of Aermec is going to continue.

2006 Aermec consolidated its presence in world markets with system appliances. A series of models to meet all design engineering requirements.

2008 Aermec responds with more and more efficient units to the world challenge of energy saving with a special attention for our environment.

2010 Aermec extends the use of inverter technology on its fancoils and chillers.
The perfect integration of the new inverter technology with the most sophisticated control systems is best expressed in the VMF (Variable Multi Flow) Hydronic System - anew way to interpret comfort in the home and elsewhere.

2011 Aermec turns 50. The company has developed and enlarged, always willing to understand and anticipate the needs of the market with innovative and quality products.
Quality in innovation, in products, in pre-sales and after-sales services.
Promotion of the philosophy of "integrated design" between designer and architect.
Past success represents the commitment to the future.

2015 The news Europe's largest test facility for air conditioning applications was inaugurated.

2017 Aermec receives Innovation Award from the US Organizations ASHRAE, AHRI and AHR. Aermec receives "Prime Company" certificate for the economic strength and commercial reliability from the international rating company Dun & Bradstreet.

	FAN COILS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	With cabinet; universal installation					
	FCZ	on/off	110-1300	0,6-6,8	0,7-15,5	12
	FCZI	Inverter	140-1140	0,8-6,0	1,0-13,9	20
	FCZ_D and FCZI_D	on/off / inverter	140-720	0,8-4.2	2,0-8,5	28
new	**FCZ_H**	on/off	140-1140	0,8-8.6	2,0-17,1	32
	Omnia HL	on/off	80-460	0,5-2,8	0,5-5,9	36
	Omnia UL	on/off	80-460	0,5-2,8	0,5-5,9	38
	Omnia ULI	Inverter	110-460	0,7-2,8	0.8-5,9	40
	Omnia Radiant	on/off or inverter with radiant panel	190-460	1,4-2,8	2,7-5,9	42
	Without cabinet; concealed installation with low static pressure					
	FCZ_P	on/off	110-1300	0,6-6,8	0,7-15,5	46
	FCZI_P	Inverter	140-1140	0,8-6,0	1,0-13,9	58
	Omnia UL_P	on/off	80-460	0,5-2,8	0,5-5,9	70
	Omnia ULI_P	Inverter	110-460	0,7-2,8	0,7-5,9	72
	Without cabinet; duct installation with high static pressure					
	VED (030-340)	on/off with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	74
	VED (430-741)	on/off with static pressure 24-75Pa	750-2410	4,7-16,1	5,2-32,7	78
	VED_I (030-340)	Inverter with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	82
	VED_I (530-741)	Inverter with static pressure 32-69Pa	1060-2410	6,16-16,0	6,8-31,7	86
	VES (030-340)	on/off with static pressure 21-66Pa	160-805	1,2-5,7	1,1-10,9	90
	VES_I (030-340)	Inverter with static pressure 21-66Pa	160-805	1,3-5,7	1,1-10,9	94
	VES_I (5300-7400)	Inverter with static pressure 29-60Pa	640-1650	4,4-11,8	5,9-25,4	98
	Cassette; ceiling installation					
	VEC	on/off with coanda effect	130-613	0,8-4,3	0,9-9,2	100
	VEC_I	Inverter with coanda effect	130-613	0,8-4,3	0,9-9,2	102
	FCL	on/off	260-1750	1,2-11	1,1-21,8	104
	FCLI	Inverter	260-1750	1,2-11	1,1-21,8	108
	With cabinet; wall installation					
	FCW	on/off	270-684	1,1-4,1	1,4-8,6	112
	Fan coil installation, control and supervision devices					
	MZC	Multi-duct fan coil distribution plenum	-	-	-	114
	Ventilcassaforma	Template for recessed fan coil installation	-	-	-	116
	Terminali utente	Control devices for fan coils	-	-	-	118
	VMF	Variable Multi Flow system	-	-	-	120

	HEAT RECOVERY UNITS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	REPURO	With cross-flow exchanger	100-650	-	-	126
new	**TRS**	with enthalpy exchanger	170-1180	-	-	134
new	**RPLI**	Countercurrent flow heat recovery unit inverter	200-3900	-	-	136
new	**RTD**		1100-3200	-	-	140
	RPF	High performance version	200-4600	-	-	144
	URX_CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	148
	URHE_CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	152
	ERSR	High efficiency version with rotary recovery exchanger	1100-16100	-	-	156

AIR HANDLING UNITS		Air flow rate (m^3/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
Compact air Handling units					
UFB20W	Floating floor installation	140-290	0,8-1,5	0,9-2,9	162
TUN	Air flow rate 900÷4000 m^3/h	900-4000	4,7-29,4	11,2-51,1	164
TS	Air flow rate 930÷4200 m^3/h	930-4200	4,8-24,8	9,8-52,0	168
TDA	Air flow rate 800÷3500 m^3/h	800-3500	4,9-22,3	2,5-45,4	170
TA	Air flow rate 900÷5000 m^3/h	900-5000	4,7-39,6	2,2-87,5	172
TN	Air flow rate 3000÷23000 m^3/h	3000-23000	10,7-155,1	14,7-334,1	176
Modular air handling units					
NCD	For hospitals	1134-79475	-	-	180
SPL 025-130	For wellness areas	2500-13000	-	-	184
SPL 160-250	For wellness areas	16000-25000	-	-	188
ENERGY	High energy efficiency version	3600-25000	-	-	192
Packaged roof-top units					
RTX 01-08	For medium crowding applications	-	12,3-50	12,5-51,0	196
RTX 09-16	For medium crowding applications	-	51,6-131,9	50-133,9	200
RTX 17-23	For medium crowding applications	-	152-305	153-311	204
RTY 01-10	For high crowding applications	-	30-134,8	29,1-142,2	208

AIR / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m^3/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
Units with scroll compressors					
ANKI 020H-080H	Reversible heat pump with inverter		5,8-18,6	6,0-20,2	214
ANLI 101H	Reversible heat pump with inverter	-	29,0	31,0	218
HSI	Reversible inverter split heat pump	-	5,5-10,4	7,7-12,8	222
ANK 020H-150H	Reversible heat pump optimised for heating	-	6,8-39,9	7,8-35,9	226
SWP	Heat pump for hot water production (with reciprocating compressor)	-	-	1,9	230
ANL 020-202	Chiller / Condensing unit	-	5,6-43,7	-	232
ANL 020-202H	Reversible heat pump	-	5,6-49,9	6,1-45,7	236
ANL 290-650	Chillers / Condensing units	-	55,0-133,0	-	240
ANL 290H-650H	Reversible heat pump	-	52,9-174,2	60,8-147,0	244
NRK 0090-0150	Reversible heat pump optimised for heating	-	18,3-40,6	20,2-34,6	248
NRK 0200-0700	Reversible heat pump optimised for heating	-	35,5-148,0	42,3-175,0	252
NRL 0280-0750	Chiller	-	56,6-193,6	-	256
NRL 0280H-0750H	Reversible heat pump	-	50,7-179,0	58,4-205,4	260
NRV 0550	Chiller	-	103,5-108,1	-	264
new **NRB 0282-0754**	Chiller	-	56,0-209,0	-	266
NRB 0800-3600	Chiller (plate heat exchanger)	-	217-1047	-	270
NRB 0800-3600	Chiller (shell and tube heat exchanger)	-	217-1047	-	274
NRB 0800H-3600H	Reversible heat pump (plate heat exchanger)	-	196,0-969,3	210,0-1002,0	278
NRB 0800H-3600H	Reversible heat pump (shell and tube heat exchanger)	-	196,0-969,3	210,0-1002,0	282
NRL 0800H-1800H	Reversible heat pump	-	183,0-470,0	228,0-526,0	286
Units with scroll compressors and centrifugal or Plug Fans					
CL 025-200	Chiller with Plug Fan	-	5,8-40,3	-	290
CL 025H-200H	Reversible heat pump with Plug Fan	-	6,3-38,3	7,8-44,0	294
NLC 0280-1250	Chiller with Plug Fan	-	52,1-318,4	-	298
NLC 0280H-1250H	Reversible heat pump with Plug Fan	-	52,0-315,6	56,5-349,1	302
Units with screw compressors					
NSM 1402-9603	Chiller	-	302-2100	-	306
NSMI 1402-4402	Chiller with Inverter screw compressors		285-1006	-	314
NSH 1251-3602	Reversible heat pump	-	250,0-730,0	282,0-789,0	318
NSG 1402-9603	Chiller (with R1234ze)	-	228-1578	-	322
Units with centrifugal compressors					
TBX 1401-4102	Chiller	-	259-861	-	330

AIR / WATER CHILLERS WITH FREECOOLING		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
Units with scroll compressors					
NRL 0280-0750F	Chiller with free cooling	-	59-194	-	336
NRB 0800-3600F	Chiller with free cooling	-	212-1004	-	340
NRB 1800-3600B	Chiller with free cooling glycol free	-	212-1004	-	348
NRV 0550F	Chiller with free cooling	-	99,9-105,4	-	356
Units with screw compressors					
NSM 1402-9603F	Chiller with free cooling	-	306-2028	-	358
NSM 1402-9603B	Chiller with free cooling glycol free	-	306-2028	-	366
NSM 1402-9603FW	Chiller with free cooling HWT	-	306-2001	-	374
NSM 1402-9603BW	Chiller with free cooling glycol free HWT	-	306-1991	-	382
NSMI 1251-4402F	Chiller with free cooling and Inverter Compressors	-	285-989	-	392

WATER / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
Units with scroll compressors					
VENICE	Water cooled heat pump, reversible water side	-	6,9-9,7	8,2-11,5	392
VENICE H	Water-cooled reversible heat pumps units	-	6,9-9,7	7,7-10,8	394
WRL 026-161	Water cooled heat pump, reversible water side	-	6,2-44,7	7,7-48,3	396
WRL 026H-161H	Water-cooled reversible heat pumps units	-	6,2-41,2	7,5-47,9	400
WRL 180-650	Water cooled heat pump, reversible water side	-	50,0-168,0	56,0-188,5	404
WRL 180H-650H	Water-cooled reversible heat pumps units	-	45,0-157,0	53,0-184,0	408
new **WRK 200-700**	Water cooled heat pump, reversible water side	-	38,9-165,9	48,5-207,7	412
new **WWM**	Water cooled heat pump, reversible water side	-	96,0	109,0	416
NXW 0500-1650	Water cooled heat pump, reversible water side	-	111-510	127-584	420
NXW 0500H-1650H	Water-cooled reversible heat pumps units	-	105,7-476,2	125,6-566,5	424
Units with screw compressors					
WS	Water cooled heat pump, reversible water side	-	134,5-699,0	-	428
HWS	Water cooled heat pump, reversible water side	-	146,4-712,0	-	432
WSH 0701-1101	Water-cooled reversible heat pumps units	-	166,0-269,0	190,0-312,0	436
WF 2512-6412	Water cooled heat pump, reversible water side	-	547-1549	-	440
HWF 2512-6412	Water cooled heat pump, reversible water side	-	540-1524	-	444
WFG 2512-6412	Water cooled heat pump, reversible water side	-	547-1549	-	44
Units with centrifugal compressors					
WMX - WMG	Chiller (WMX with R134a - WMG with R1234ze)		280-324	-	452
TW 110	Chiller (with R134a)	-	284	-	454
WTX	Chiller (with R134a)	-	280-324	-	456

MULTI-PURPOSE		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
NRP 0200-0750	Multi-Purpose (plate heat exchanger)	-	43,0-184,0	46,0-206,0	462
NRP 0800-1800	Multi-Purpose (plate heat exchanger)	-	199,0-475,0	242,0-547,0	466
NRP 0800-1800	Multi-Purpose (shell and tube heat exchanger)	-	199,0-475,0	242,0-547,0	470
NXP 0500-1650	Multi-Purpose (plate heat exchanger)	-	109,0-501,0	123,0-560,0	474

PRECISION AIR CONDITIONING		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
P	Direct expansion (air or water cooled); chilled water	-	7,7-186,9	-	480
G	Direct expansion (air or water cooled); chilled water	-	43,0-183,5	-	484
R (in Rack)	Direct expansion (air or water cooled); chilled water	-	20,3-36,2	-	488
UFB20	Booster unit for floating floor installation	140-740	-	-	492

	ROOM AIR CONDITIONERS		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
	Monosplit					
	SK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-7,0	3,0-7,3	496
	SE	Reversible heat pump	-	2,5-6,4	2,7-7,0	498
new	**SL**	Reversible heat pump	-	2,5-6,2	2,8-6,2	500
new	**SLG**	Reversible heat pump	w	2,7-6,1	2,8-6,4	502
	SC	Reversible heat pump with	-	12,0	13,6	504
	FK	Packaged Air Conditioner	-	2,7-3,6	-	506
	COMPACT	Packaged heating pump without outdoor unit	-	2,3	2,3	508
new	**PSD300**	Local air conditioner (portable)	360	2,9	-	510
	CK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-5,2	2,7-5,5	512
	LCI	Reversible heat pump	-	3,5-16,0	3,8-17,0	514
	MVA	Reversible heat pump	-	22,4-28	25-30	518
	Multisplit					
	MKM	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	4,1-12,1	4,4-13,0	520

	VRF SYSTEM		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
	MVA	Reversible heat pump	-	12,0-180,0	14,0-200,0	530

	COMPLEMENTARY PRODUCTS		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
	Thermal Buffers tank					
	SAF	DHW Thermal Buffer tank	-	-	-	544
	SAP	Buffer tank with capacity from 75 to 3500 litres	-	-	-	546
	Plug&Play hydronic kit					
	WST	Hydronic kit plug & play solution	-	82,2-283,9	-	550
	Cooling towers					
	TRA	Cooling towers	-	-	-	554
	Remote condensers - Dry coolers					
	CSE-CDR-CVR-CGA-CMV-CVR	Remote condensers	-	-	-	556
	WTE-WTR-WDR-WTS-WTA	Dry coolers	-	-	-	568
	Water cooled condensing unit					
	MEC-W	Water-cooled packaged air conditioners	-	11,0-55,0	-	576
	FW-R	Water-cooled air conditioners	-	2,9-4,0	4,3-5,2	578
	CWX	Water cooled condensing unit	-	3,5-6,7	-	580
	Dehumidifier					
	SMUFFO	Portable dehumidifier	-	-	-	584
new	**DMH_DMV**	Dehumidifiers with radiant air-conditioning systems	-	-	-	586

FAN COILS

Aermec and fancoils: complementary names where the company identifies and product and vice versa In this area of climate control, Aermec is real leader: a major company in Italy and one of the top in Europe. A leading position gained through long-standing experience that has gained ground year after year. Special attention to detail, quality materials state-of-the-art technology ensure optimal performance with virtually imperceptible noise levels, especially at low speed; attention paid to dimensions and overall size, comparable to those of standard radiators, to enable installation in all residential and commercial environments; exclusive design, anticipating trends and in harmony with interior design requirements; new electronic control panel to enable automatic operation and achieve the most user-friendly climatisers to date. Aermec fancoils boast all these features and more.

FAN COILS

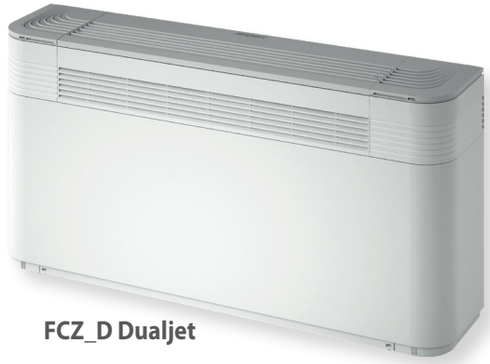
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	FCZ_D and FCZI_D	on/off / inverter	140-720	0,8-4.2	2,0-8,5	28
new	**FCZ_H**	on/off	140-1140	0,8-8.6	2,0-17,1	32
	Omnia HL	on/off	80-460	0,5-2,8	0,5-5,9	36
	Omnia UL	on/off	80-460	0,5-2,8	0,5-5,9	38
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	Without cabinet; concealed installation with low static pressure					
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	FCZI_P	Inverter	140-1140	0,8-6,0	1,0-13,9	58
	Omnia UL_P	on/off	80-460	0,5-2,8	0,5-5,9	70
	Omnia ULI_P	Inverter	110-460	0,7-2,8	0,7-5,9	72
	Without cabinet; duct installation with high static pressure					
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	VED (430-741)	on/off with static pressure 24-75Pa	750-2410	4,7-16,1	5,2-32,7	78
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	Ventilcassaforma	Template for recessed fan coil installation	-	-	-	116
	Terminali utente	Control devices for fan coils	-	-	-	118
	VMF	Variable Multi Flow system	-	-	-	120

FCZ

Fan coils
Universal and floor installation

Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website www.eurovent-certification.com

VMF



FCZ_D Dualjet



FCZ_A

ThermApp

Programming via smart devices using Therm App



Electronic T-Touch controller

FCZ_U



- **EXTREMELY SILENT OPERATION**
- **ADVANCED CONTROLLER ALLOWING PROGRAMMING VIA SMART DEVICES**
- **DUALJET VERSION FOR HIGHEST FOUR–SEASON COMFORT**

Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZ series: elegant design goes hand in hand with low noise and notable energy savings.
FCZ can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to numerous configurations and models Aermec offers the ideal solution for any need.

Versions

Without installed controller,

Vertical or horizontal installation:
- **FCZ_U**
- **FCZ_UA**

Vertical installation:
- **FCZ_DS**
- **FCZ_AS**

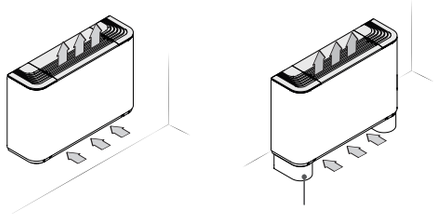
With installed controller

Vertical installation:
- **FCZ_D**
- **FCZ_A**
- **FCZ_ACT**
- **FCZ_APC**

- housing RAL9003, grille/feet RAL 7047
- 3-speed fan.
- Electric motors with permanently inserted condensers
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille (U version)
- Automatic power-off function with closure of the air delivery grille, (U version)
- Low pressure drop coil
- Easy installation and maintenance
- **G2** air filter for all versions. **APC versions equipped with Plasmacluster purifier**
- Extractable shrouds for easy, effective cleaning
- The hydraulic connections can be inverted during installation (only valid for units with a single coil, those with a supplementary coil cannot be inverted).
- **The ThermApp application (applicable with T-TOUCH controller) operates by simply placing a smart device on the fan coil. The App allows working mode and time schedule programming, sleep mode activation, alarm listing, etc. ThermApp is available for Android Operating Systems.**

Configurations available

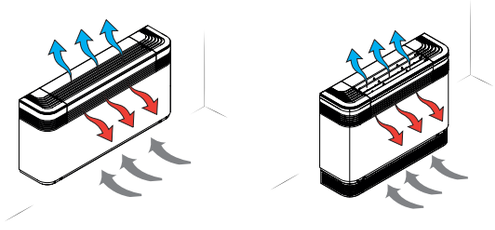
With fixed grille (vertical free-standing) - A



- **FCZ_A**
  - With switch
-
- **FCZ_AS**
  - Without installed controller
  - Compatible with VMF system
- **FCZ_ACT**
  - With electronic controller (for 2 pipe systems)
- **FCZ_APC**
  - With electronic controller (for 2 pipe systems)
  - with Plasmacluster purifier

Vertical installation only
- For 2/4 pipe systems

With double flow (Dualjet) - D



Dualjet, unique to Aermec, offers notably improved seasonal comfort by directing the air flow according to the season.
In winter warm air is directed towards the floor; in summer cool air is directed towards the ceiling.

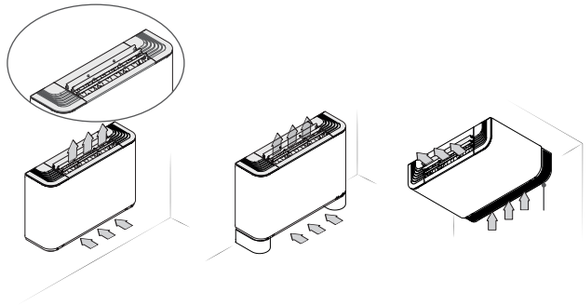
- **FCZ_D** With installed controller
- **FCZ_DS** Without installed controller

FCZ_DS units are compatible with the T-TOUCH controller and VMF system, (contact Aermec for futher details)
- The air supply orientation (frontal or top is adjuested by acting directly on the grille.

Vertical installation only
- For 2 pipe system (4 pipe system with VCF_X4 , VMF system or T-TOUCH)

With adjustable/fixed grille (Universal) - U

With adjustable air distribution grille - U

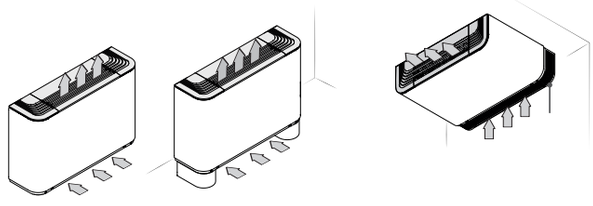


- **FCZ_U**
  - Without installed controller
  - Compatible with VMF system
  - Adjustable grille
    Single for size 1-2-3
    Three independent for sizes 4-5-6-7-8

With the flap completely closed the unit is off

Vertical or horizontal installation
- For 2/4 pipe systems

With fixed air distribution grille - UA



- **FCZ_UA**
  - Without installed controller
  - Compatible with VMF system
  - Fixed grille

Vertical or horizontal installation
- For 2/4 pipe systems

Unit selection

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code
1,2,3	**FCZ**
4	**Size**
	1-2-3-4-5-6-7-8-9-10
5	**Main coil**
	0 Standard
	5 Oversized (1)
6	**Supplementary coil**
	0 Without coil
	1 Standard
	2 Oversized

(1) Oversized coil **"5"** does not allow the installation of the supplementary coil **"1 or 2"**

7,8	Versions
D	Dualjet with installed controller
DS	Dualjet without installed controller
A	Free standing with switch
AS	Free standing without switch
ACT	Free standing with electronic controller
APC	Free standing, electronic controller and Plasmacluster purifier
U	Universal with adjustable grille, without installed controller
UA	Universal with fixed grille without installed controller

Size available by version

Versions	Size available with main coil only (2 pipes)																		
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ACT	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
APC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
D	/	/	•	/	•	/	•	/	•	/	/	/	/	/	/	/	/	/	/
DS	/	/	•	/	•	/	•	/	•	/	/	/	/	/	/	/	/	/	/

Versions	Size available with main and supplementary coil (4 pipes)																	
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ACT	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
APC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
D	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
DS	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Accessories

Control Panel

- **T-TOUCH**: Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Plasmacluster, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E2Z**: User interface for mounting on the unit with two selectors: one to control the temperature and one for the speed.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil

- **BV**: Single row hot water heat exchanger. Not available for versions with Plasmacluster.

Electrical heater

- **RX**: Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Plasmacluster versions

Valve kit

- **VCZ_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD**: **Kit consisting of powered 2-way valve**, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Installation accessoires

- **AMP**: Wall mounting kit.
- **DSC4**: Condensate drainage device applied where natural run-off is not possible.
- **BCZ**: Drip tray
- **GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.
- **PCZ**: Sheet metal panel to close rear of unit
- **ZXZ**: Mounting feet (set of 2).

Refer to dedicated product Leaflet for further details concerning control panel and VMF System.

Compatibility of accessories

			Single coil model																		
FCZ			**100**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**600**	**650**	**700**	**750**	**800**	**850**	**900**	**950**	**1000**
Probes and accessories for control panels																					
T-TOUCH	AS-U-UA-DS		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTLM	AS-U-UA		•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•	•
PTINZ	AS-U-UA-DS		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PX-PX2-PX2C6	AS-U-UA	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE-PXAR	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05-06-10	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPFW	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3	AS-U-UA		In combination with PXAE or PXAR																		
SIT3	AS-U-UA		In combination with TPFW or PXAE o PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	AS-U-UA		In combination with TPFW or PXAE or PXAR																		
VMF System																					
VMF-E0	AS-U-UA-DS*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	AS-U-UA-DS*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)																					
BV117	A-AS-U-UA		•																		
BV122	A-AS-U-UA				•																
BV132	A-AS-U-UA						•														
BV142	A-AS-U-UA								•		•										
BVZ800	A-AS-U-UA												•		•		•				
BV162	A-AS-U-UA																		•		•
Electrical Heat Exchanger																					
RX17	AS-U-UA		•																		
RX22	AS-U-UA				•																
RX32	AS-U-UA						•														
RX42	AS-U-UA								•												
RX52	AS-U-UA										•										
RXZ800	AS-U-UA												•		•		•				
RX62	AS-U-UA																		•		•
Water valves **																					
Valve Kit for 4 pipe systems with main coil																					
VCZ1X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)		•	•	•	•															
VCZ2X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)						•	•	•	•	•	•	•	•	•	•	•	•			
VCZ3X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)																		•	•	•
3 way valve kit																					
VCZ41/4124	AS-ACT-APC-U-UA-D-DS	(2)	•	•	•	•															
VCZ42/4224	AS-ACT-APC-U-UA-D-DS	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	AS-ACT-APC-U-UA-D-DS	(2)																	•	•	•
2 way valve kit																					
VCZD1/124	AS-ACT-APC-U-UA-D-DS	(2)	•	•	•	•															
VCZD2/224	AS-ACT-APC-U-UA-D-DS	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	AS-ACT-APC-U-UA-D-DS	(2)																	•	•	•
Combined adjustment and balancing valve independent of pressure																					
VJP060	AS-ACT-APC-U-UA-D-DS		•	•	•	•	•	•													
VJP090	AS-ACT-APC-U-UA-D-DS								•	•	•	•	•	•							
VJP150	AS-ACT-APC-U-UA-D-DS												•	•	•	•	•	•	•	•	•
VJP060M	AS-ACT-APC-U-UA-D-DS	(2)	•	•	•	•	•	•													
VJP090M	AS-ACT-APC-U-UA-D-DS	(2)							•	•	•	•	•	•							
VJP150M	AS-ACT-APC-U-UA-D-DS	(2)											•	•	•	•	•	•	•	•	•
Installation accessories																					
AMP20	U-UA		•	•	•	•	•	•	•	•	•	•									
AMPZ	U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BCZ4	(Inst. vertical)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BCZ5	(Inst. horizontal)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BCZ9	(Inst. horizontal)																		•	•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

* Contact Aermec

****The water valves can be combined with the unit if it is also provided a control panel that controls**

PTINZ e PX2Z **Only for wall installation**

(1) **Only for wall installation;** PX2C6 panel PX2 in multiples of 6

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

(3) DSC4 is not available with AMPZ

Compatibility of accessories

		Single coil model																		
FCZ		**100**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**600**	**650**	**700**	**750**	**800**	**850**	**900**	**950**	**1000**
Panel to close rear of unit																				
PCZ100	All	•	•																	
PCZ200	All			•	•															
PCZ300	All					•	•													
PCZ500	All							•	•	•	•									
PCZ800	All											•	•	•	•	•	•			
PCZ1000	All																	•	•	•
Grille for ceiling mounted units																				
GA100	U-UA	•	•																	
GA200	U-UA			•	•															
GA300	U-UA					•	•													
GA500	U-UA							•	•	•	•									
GA800	U-UA											•	•	•	•	•	•	•	•	•
Mounting feet																				
ZXZ		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

			Twin coil models																	
FCZ			**101**	**102**	**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**601**	**602**	**701**	**702**	**801**	**802**	**901**	**1001**
Probes and accessories for control panels																				
T-TOUCH	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTLM	AS-U-UA		•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	*	*
TPF	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT06-10	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPFW	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF System																				
VMF-E0	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valves **																				
3 way valve kit																				
VCZ41/4124	AS-U-UA	(2)	•	•	•	•														
VCZ42/4224	AS-U-UA	(2)					•	•	•	•	•	•	•	•	•	•	•	•		
VCZ43/4324	AS-U-UA	(2)																	•	•
2 way valve kit																				
VCZD1/124	AS-U-UA	(2)	•	•	•	•														
VCZD2/224	AS-U-UA	(2)					•	•	•	•	•	•	•	•	•	•	•	•		
VCZD3/324	AS-U-UA	(2)																	•	•
3 way valve kit for heating coil only																				
VCF44/4424	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
VCF45/4524	AS-U-UA																		•	•
2 way valve kit for heating coil only																				
VCFD4/424	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure																				
VJP060	AS-U-UA		•	•	•	•	•	•												
VJP090	AS-U-UA								•	•	•	•	•	•						
VJP150	AS-U-UA												•	•	•	•	•	•	•	•
VJP060M	AS-U-UA	(2)	•	•	•	•	•	•												
VJP090M	AS-U-UA	(2)							•	•	•	•	•	•						
VJP150M	AS-U-UA	(2)											•	•	•	•	•	•	•	•
Installation accessories																				
AMP20	U-UA		•	•	•	•	•	•	•	•	•	•								
AMPZ	U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BCZ4	(Inst. vertical)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BCZ5	(Inst. horizontal)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BCZ9	(Inst. horizontal)																		•	•
Panel to close rear of unit																				
PCZ100	All		•	•																
PCZ200	All				•	•														
PCZ300	All						•	•												
PCZ500	All								•	•	•	•								
PCZ800	All												•	•	•	•	•	•		
PCZ1000	All																		•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

* Contact Aermec

****The water valves can be combined with the unit if it is also provided a control panel that controls**

VJP / VJP_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

(3) DSC4 is not available with AMPZ

Compatibility of accessories

Grille for ceiling mounted units																			
GA100	U-UA	•	•																
GA200	U-UA			•	•														
GA300	U-UA					•	•												
GA500	U-UA							•	•	•	•								
GA800	U-UA											•	•	•	•	•	•	•	•
Mounting feet																			
ZXZ	All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Technical data - unit with single coil

FCZ			**100**			**150**			**200**			**250**			**300**			**350**			**400**			**450**			**500**			**550**		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																																
2 pipe systems																																
Heating capacity (70°C)	(1)	kW	2,40	2,00	1,45	2,65	2,19	1,55	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57	8,50	7,31	5,27	9,75	8,34	5,82
Water flow rate	(1)	l/h	206	172	125	232	192	136	324	258	177	355	278	193	482	391	304	539	431	330	627	503	379	685	551	400	745	641	462	855	731	510
Pressure drop	(1)	kPa	9,0	7,0	4,0	12,0	9,0	5,0	18,0	12,0	6,0	23,0	15,0	7,0	18,0	12,0	7,0	20,0	14,0	8,0	24,0	16,0	9,0	16,0	11,0	6,0	28,0	21,0	12,0	26,0	20,0	10,0
Heating capacity (45°C)	(2)	kW	1,19	0,99	0,72	1,31	1,09	0,77	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27	4,22	3,63	2,62	4,85	4,14	2,89
Water flow rate	(2)	l/h	207	173	126	229	189	134	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394	734	631	455	842	720	502
Pressure drop	(2)	kPa	9,5	7,0	4,0	12,5	9,0	5,0	17,5	12,0	6,0	22,0	15,0	8,0	17,5	12,0	8,0	20,5	14,0	8,5	23,5	16,0	9,5	16,0	11,0	6,0	28,0	21,0	12,0	25,5	19,5	10,0
Cooling Performance																																
Total cooling capacity	(3)	kW	1,00	0,84	0,65	1,27	1,06	0,80	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,20	4,03	3,21	2,41	4,25	3,69	2,68	4,79	4,13	2,91
Sensible cooling capacity	(3)	kW	0,83	0,69	0,51	0,97	0,80	0,57	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69	3,18	2,73	1,94	3,49	2,98	2,07
Cooling capacity (latent)	(3)	kW	0,17	0,15	0,14	0,30	0,26	0,23	0,27	0,23	0,18	0,42	0,35	0,27	0,61	0,52	0,42	0,84	0,70	0,56	0,93	0,78	0,61	1,13	0,91	0,72	1,07	0,96	0,74	1,30	1,15	0,84
Water flow rate	(3)	l/h	172	144	112	219	182	138	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414	731	634	460	824	711	501
Pressure drop	(3)	kPa	8,0	6,0	4,0	13,0	12,0	6,0	18,0	12,5	6,5	25,0	17,0	8,5	18,0	13,0	8,0	25,0	17,5	11,0	24,0	16,5	10,0	22,0	15,0	9,0	29,0	22,5	13,0	28,0	21,5	11,5
Fans																																
Centrifugal Fans		n°	1						1						2						2						2					
Air flow rate		m³/h	200	160	110	200	160	110	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	720	600	400	720	600	400
Sound level																																
Sound power level	(4)	dB(A)	45	38	31	45	38	31	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37	56	51	42	56	51	42
Sound pressure level		dB(A)	37	30	23	37	30	23	43	38	27	43	38	27	40	33	26	40	33	26	43	36	29	43	36	29	48	43	34	48	43	34
Hydraulic connections																																
Main coil																																
Standard		Ø	1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"		
Electrical data																																
Absorbed power		W	35	29	19	35	29	19	33	29	25	33	29	25	44	33	25	44	33	25	57	43	30	57	43	30	76	52	38	76	52	38
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz																													

FCZ			**600**			**650**			**700**			**750**			**800**			**850**			**900**			**950**			**1000**		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance																													
2 pipe systems																													
Heating capacity (70°C)	(1)	kW	10,00	8,10	6,50	11,50	9,15	7,19	11,00	9,80	8,10	12,50	11,30	9,10	12,00	10,80	9,80	14,00	12,35	11,30	15,14	13,35	10,77	17,10	14,42	11,20	17,02	15,24	12,56
Water flow rate	(1)	l/h	877	710	570	1008	802	631	964	860	710	1096	991	798	1052	947	859	1227	1083	991	1328	1171	945	1500	1264	982	1493	1337	1101
Pressure drop	(1)	kPa	26,0	17,8	12,0	31,2	20,7	13,4	29,1	23,6	16,8	17,7	14,7	10,0	32,2	26,6	22,4	25,0	20,0	17,0	22,0	17,4	12,0	33,0	24,5	15,5	38,4	31,5	22,2
Heating capacity (45°C)	(2)	kW	4,97	4,03	3.32	5,72	4,55	3.57	5,47	4,87	4,03	6,21	5,62	4,52	5,97	5,37	4,87	6,96	6,14	5,62	7,53	6,64	5,35	8,50	7,17	5,57	8,46	7,58	6,24
Water flow rate	(2)	l/h	863	699	561	993	790	621	950	846	699	1079	975	786	1036	932	846	1209	1066	975	1307	1152	930	1476	1245	967	1469	1316	1084
Pressure drop	(2)	kPa	25,5	17,5	12,0	31,0	20,5	13,5	29,0	23,5	16,5	17,5	14,5	10,0	32,0	26,0	22,0	25,0	19,5	17,0	21,5	17,0	12,0	33,0	24,0	15,0	37,5	31,0	22,0
Cooling Performance																													
Total cooling capacity	(3)	kW	4,65	3,90	3,22	5,67	4,80	3,95	5,50	4,89	3,92	6,14	5,34	4,27	6,10	5,66	4,84	6,91	6,29	5,26	6,91	5,00	4,29	8,60	7,32	5,77	7,62	6,88	5,69
Sensible cooling capacity	(3)	kW	3,92	3,17	2,56	4,12	3,43	2,78	4,30	3,76	2,99	4,72	4,05	3,20	4,83	4,42	3,72	5,36	4,83	4,00	5,68	3,78	2,97	5,78	4,87	3,80	5,53	5,34	4,42
Cooling capacity (latent)	(3)	kW	0,73	0,73	0,66	1,55	1,37	1,17	1,20	1,13	0,93	1,42	1,29	1,07	1,27	1,24	1,12	1,55	1,46	1,26	1,23	1,22	1,32	2,82	2,45	1,97	2,09	1,54	1,27
Water flow rate	(3)	l/h	800	671	554	975	825	595	946	841	675	1056	918	734	1049	974	833	1189	1082	904	1189	860	738	1479	1259	992	1311	1183	979
Pressure drop	(3)	kPa	26,0	19,0	13,5	28,0	21,0	15,0	30,0	24,5	16,5	18,5	14,5	10,0	30,0	26,5	20,0	23,0	19,5	14,0	22,0	12,5	9,5	30,0	22,5	15,0	35,5	31,0	22,0
Fans																													
Fans Centrifugal		n°	3						3						3						3						3		
Air flow rate		m³/h	920	720	520	920	720	520	1140	930	700	1140	930	700	1300	1120	900	1300	1120	900	1140	930	700	1140	930	700	1300	1120	900
Sound level																													
Sound power level	(4)	dB(A)	57	51	42	57	51	42	62	57	50	62	57	50	66	61	56	66	61	56	62	57	51	61	57	51	66	61	56
Sound pressure level		dB(A)	49	43	34	49	43	34	54	49	42	54	49	42	58	53	48	58	53	48	54	49	43	53	49	43	58	53	48
Hydraulic connections																													
Main coil																													
Standard		Ø	3/4"			/			3/4"			/			3/4"			/			3/4"			/			3/4"		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"			/			3/4"			/		
Electrical data																													
Absorbed power		W	91	60	38	91	60	38	106	80	59	106	80	59	131	100	80	131	100	80	106	80	59	106	80	59	131	100	80
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz	230V~50Hz																										

Data in accordance with Regulation EU 2016/2281

H Maximum speed; **M** Average Speed; **L** Minimum speed

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data - unit with main + supplementary coil

FCZ			101			201			301			401			501			601			701			801			901			1001		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																																
4 pipe systems																																
Heating capacity	(2)	kW	1,17	1,01	0,75	1,60	1,35	1,02	2,56	2,18	1,80	3,12	2,65	2,21	3,73	3,34	2,59	4,36	3,67	2,96	4,94	4,29	3,66	5,35	4,79	4,20	5,72	5,63	4,73	6,08	5,56	4,85
Water flow rate	(2)	l/h	102	89	65	140	118	89	224	191	158	273	232	186	327	293	227	381	321	259	437	375	320	467	419	368	501	492	414	532	487	424
Pressure drop	(2)	kPa	4,5	3,5	2,0	10,5	7,5	4,5	30,5	23,0	16,5	8,5	6,5	4,5	10,5	8,5	5,5	16,1	12,0	8,0	18,6	14,5	11,0	24,0	20,0	15,5	12,0	12,0	8,5	16,0	13,5	10,5
Cooling Performance																																
Total cooling capacity	(3)	kW	1,00	0,84	0,65	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20	4,25	3,69	2,68	4,65	3,90	3,22	5,50	4,89	3,92	6,10	5,66	4,84	6,91	5,00	4,29	7,62	6,88	5,69
Sensible cooling capacity	(3)	kW	0,83	0,69	0,51	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59	3,18	2,73	1,94	3,92	3,17	2,56	4,30	3,76	2,99	4,83	4,42	3,72	5,68	3,78	2,97	5,53	5,34	4,42
Cooling capacity (latent)	(3)	kW	0,17	0,15	0,14	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61	1,07	0,96	0,74	0,73	0,73	0,66	1,20	1,13	0,93	1,27	1,24	1,12	1,23	1,22	1,32	2,09	1,54	1,27
Water flow rate	(3)	l/h	172	144	112	275	221	153	456	374	289	619	503	379	731	635	461	800	671	554	946	841	675	1049	974	832	1188	860	738	1311	1183	979
Pressure drop	(3)	kPa	7,0	5,0	4,0	18,0	12,5	6,5	18,0	13,0	8,0	34,0	23,5	14,0	29,0	22,5	13,0	26,0	19,0	14,5	30,0	24,5	16,5	30,0	26,5	20,0	9,5	14,5	9,5	37,3	31,0	22,0
Fans																																
Centrifugal fans		n°	1			1			2			2			2			3			3			3			3			3		
Air flow rate		m³/h	200	160	110	290	220	140	450	350	260	600	460	330	720	600	400	920	720	520	1140	930	700	1300	1120	900	1140	930	700	1300	1120	900
Sound level																																
Sound power level	(4)	dB(A)	45	38	31	51	46	35	48	41	34	51	44	37	56	51	42	57	51	42	62	57	50	66	61	56	62	57	51	66	61	56
Sound pressure level		dB(A)	37	30	23	43	38	27	40	33	26	43	36	29	48	43	34	49	43	34	54	49	42	58	53	48	54	49	43	58	53	48
Hydraulic connections																																
Main coil		Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	1/2"			1/2"			3/4"			3/4"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Electrical data																																
Absorbed power		W	35	29	19	33	29	25	44	33	25	57	43	30	76	52	38	91	60	38	106	80	59	131	100	80	80	80	59	131	100	80
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz																													

Data in accordance with Regulation EU 2016/2281

H Maximum speed; **M** Average Speed; **L** Minimum speed

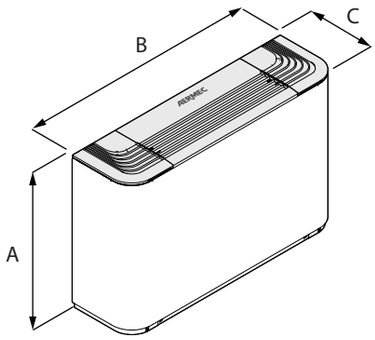
(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

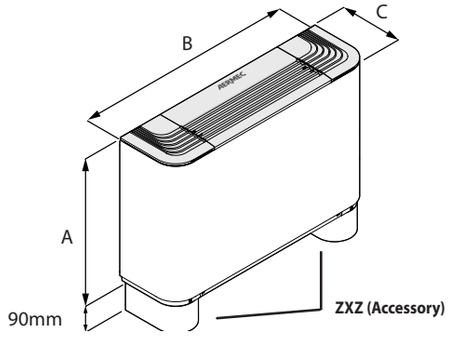
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions and Weights





FCZ		100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Dimensions for all versions																					
A	mm	486				486				486				486				486			
A (with feet)	mm	576				576				576				576				576			
B	mm	640				750				980				1200				1200			
C	mm	220				220				220				220				220			
Weight without feet	kg	13	14	14	14	15	15	16	16	17	18	19	19	23	23	24	24	22	23	24	24

FCZ		600	601	602	650	700	701	702	750	800	801	802	850	900	901	/	950	1000	1001	/	/
Dimensions for all versions																					
A	mm	486				486				486				591				591			
A (with feet)	mm	576				576				576				681				681			
B	mm	1320				1320				1320				1320				1320			
C	mm	220				220				220				220				220			
Weight without feet	kg	29	31	33	33	29	31	33	33	29	29	31	33	34				34			

Cod.: SFCZUY.03 / 1711

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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FCZI

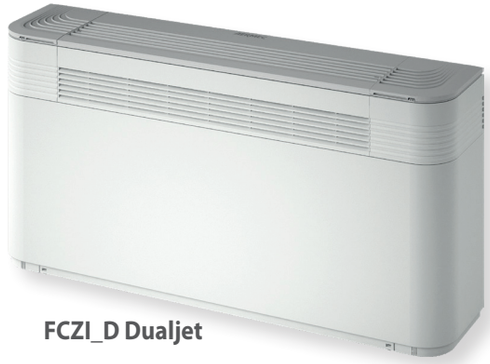
Fan coils with Inverter Brushless motor (EC)
Universal and floor installation

Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website www.eurovent-certification.com

Variable Multi Flow

VMF

INVERTER TECHNOLOGY



FCZI_D Dualjet



FCZI_ACT

ThermApp

Programming via smart devices using Therm App



Electronic T-Touch controller

FCZI_U



- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3–SPEED MOTOR**
- **ADVANCED CONTROLLER ALLOWING PROGRAMMING VIA SMART DEVICES**
- **DUALJET VERSION FOR HIGHEST FOUR–SEASON COMFORT**

Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZI series: the elegant design goes hand in hand with low noise and important energy savings.
inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems. This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors). In term of noise, in any operating condition exceptional values have been observed.
FCZI can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

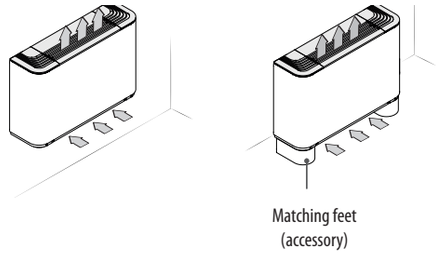
Versions without installed controller,
Vertical or horizontal installation:
FCZI_U
Vertical installation:
FCZI_AS

With installed controller,
Vertical installation:
FCZI_DT
FCZI_D
FCZI_ACT

- housing RAL9003, grille/feet RAL 7047
- Brushless motor with 0-100% speed continuous variation to guarantee best performance at very low sound level
- Centrifugal fan designed to guarantee continuous modulation of the air flow rate and to increase comfort and electric saving.
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille (U version)
- Automatic power-off function with closure of the air delivery grille, (U version)
- Low loss of charge in the heat exchanger
- Easy installation and maintenance
- **G2** air filter for all versions.
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase
- **The ThermApp application (applicable with T-TOUCH controller) operates by simply placing a smart device on the fan coil. The App allows working mode and time schedule programming, sleep mode activation, alarm listing, etc. ThermApp is available for Android Operating Systems.**

Configurations available

With fixed grille (vertical free-standing) - A

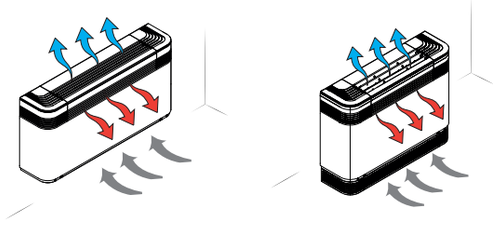


- **FCZ_AS**
  Without installed controller
  - Compatible with VMF system

- **FCZ_ACT**
  - With electronic controller (for 2 pipe systems)

Vertical installation only
- For 2/4 pipe systems

With double flow (Dualjet) - D



Dualjet, unique to Aermec, offers notably improved seasonal comfort by directing the air flow according to the season.
In winter warm air is directed towards the floor; in summer cool air is directed towards the ceiling.

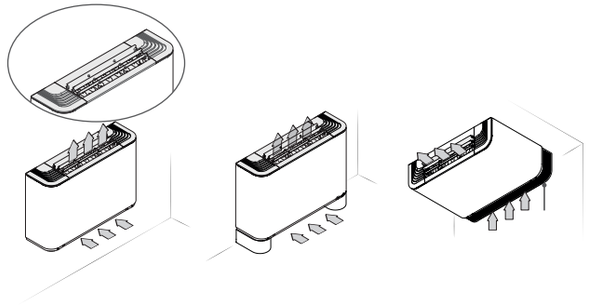
- **FCZI_D** With installed controller
- **FCZI_DT** With installed controller T-Touch

FCZ_D units are compatible with the the VMF system, in this case you will need to contact the headquarter
- You can change the air supply orientation, frontal or from above, by acting directly on the adjustable grid.

Only vertical installation
- For 2 pipe system (4 pipe system with VCF_X4 , VMF system or FCZI_DT)

With adjustable/fixed grille (Universal) - U

With adjustable air distribution grille - U



- **FCZI_U**
  - Without installed controller
  - Compatible with VMF system
  - Adjustable air distribution grille
    Single for size 2-3
    Three independent for sizes 4-5-7
  With the flap completely closed the unit is off

Vertical or horizontal installation
- For 2/4 pipe systems

Unit selection

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code
1,2,3,4	**FCZI**
5	**Size**
	2-3-4-5-7-9
6	**Main coil**
0	Standard
5	Oversized (1)
7	**Supplementary coil**
0	Without coil
1	Standard
2	Oversized
8,9	**Versions**
D	Dualjet with installed controller
DT	With installed controller T-Touch
AS	Free standing without installed switch
ACT	Free standing with electronic controller
U	Universal with adjustable grille, without installed controller

(1) Oversized coil **"5"** does not allow the installation of the supplementary coil **"1 or 2"**

Size available for version

Versioni	Size available main coil only (2 pipes)											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
AS	•	•	•	•	•	•	•	•	•	•	•	•
ACT	•	•	•	•	•	•	•	•	•	•	•	•
U	•	•	•	•	•	•	•	•	•	•	•	•
D	•	/	•	/	•	/	•	/	/	/	/	/
DT	•	/	•	/	•	/	•	/	/	/	/	/

Versioni	Size available main and supplementary coil (4 pipes)										
FCZI	201	202	301	302	401	402	501	502	701	702	901
AS	•	•	•	•	•	•	•	•	•	•	•
ACT	•	•	•	•	•	•	•	•	•	•	•
U	•	•	•	•	•	•	•	•	•	•	•
D	/	/	/	/	/	/	/	/	/	/	/
DT	/	/	/	/	/	/	/	/	/	/	/

Accessories

T-TOUCH-I: Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels

- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m.
- **PTI2Z**: Electronic thermostat on board the fan coil

VMF system

- **VMF-E2Z**: User interface for mounting on with two selectors: one to control the temperature and one for the speed
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18X**: Thermostat for serial communication
- **VMF-SW**: water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Coil - Hot water

- **BV**: Single row hot water heat exchanger

Valve kit

- **VCZ_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD**: **Kit consisting of powered 2-way valve**, copper Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

  The VJP is controlled by on-off logic with compatible control panels (accessories)

  The VJP_M is controlled by modulating logic with panels not supplied by Aermec

  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Installation accessoires

- **AMP**: kit for the wall mounting installation.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **BCZ**: Auxiliary condensate drip tray
- **GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.
- **ZXZ**: Copy of esthetical and structural feet

Refer to dedicated product Leaflet for further details concerning control panel and VMF System

Compatibility of accessories

			Single coil model											
FCZI			**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**700**	**750**	**900**	**950**
Probes and accessories for control panels														
T-TOUCH-I	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U		In combination with WMT21											
VMF System														
VMF-E18X	AS-U-D*		•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U		•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)														
BV122	All		•											
BV132	All				•									
BV142	All						•		•					
BVZ800	All										•			
BV162	All												•	
Water valves **														
Valve Kit for 4 pipe systems with main coil														
VCZ1X4L-R	AS-U-(D+sist. VMF or DT)		•	•										
VCZ2X4L-R	AS-U-(D+sist. VMF or DT)				•	•	•	•	•	•	•	•		
VCZ3X4L-R	AS-U-(D+sist. VMF or DT)												•	•
3 way valve kit														
VCZ41/4124	All	(1)	•	•										
VCZ42/4224	All	(1)			•	•	•	•	•	•	•	•		
VCZ43/4324	All	(1)											•	•
2 way valve kit														
VCZD1/124	All	(1)	•	•										
VCZD2/224	All	(1)			•	•	•	•	•	•	•	•		
VCZD3/324	All	(1)											•	•
Combined adjustment and balancing valve independent of pressure**														
VJP060			•	•	•	•								
VJP090							•	•	•	•				
VJP150											•	•	•	•
VJP060M		(1)	•	•	•	•								
VJP090M		(1)					•	•	•	•				
VJP150M		(1)									•	•	•	•
Installation accessories														
AMP20	U		•	•	•	•	•	•	•	•				
AMPZ	U		•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•	•
BCZ4	(Vertical)		•	•	•	•	•	•	•	•	•	•	•	•
BCZ5	(Horizontal)		•	•	•	•	•	•	•	•	•	•		
BCZ9	(Horizontal)												•	•
Panel to close rear of unit														
PCZ200	All		•	•										
PCZ300	All				•	•								
PCZ500	All						•	•	•	•				
PCZ800	All										•	•		
PCZ1000	All												•	•
Grille for ceiling mounted units														
GA200	U		•	•										
GA300	U				•	•								
GA500	U						•	•	•	•				
GA800	U										•	•	•	•
ZXZ	All		•	•	•	•	•	•	•	•	•	•	•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

* Contact Aermec

****The water valves can be combined with the unit if it is also provided a control panel that controls**

**** VJP / VJP_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow**

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

(2) DSC4 is not available with AMPZ

Compatibility of accessories

			Twin coil model										
FCZI			**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**701**	**702**	**901**
Probes and accessories for control panels													
T-TOUCH-I	AS-U		•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U		•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U		In combination with WMT21										
VMF System													
VMF-E18	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U		•	•	•	•	•	•	•	•	•	•	•
Water valves													
3 way valve kit													
VCZ41/4124	All	(1)	•	•									
VCZ42/4224	All	(1)			•	•	•	•	•	•	•	•	
VCZ43/4324	All	(1)											•
2 way valve kit													
VCZD1/124	All	(1)	•	•									
VCZD2/224	All	(1)			•	•	•	•	•	•	•	•	
VCZD3/324	All	(1)											•
3 way valve kit for heating coil only													
VCF44/4424	All	(1)	•	•	•	•	•	•	•	•	•	•	
VCF45/4524	All	(1)											•
2 way valve kit for heating coil only													
VCFD4/424	All	(1)	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure**													
VJP060	All		•	•	•	•	•	•	•	•	•	•	
VJP150	All												•
VJP060M	All	(1)	•	•	•	•	•	•	•	•	•	•	
VJP150M	All	(1)											•
Installation accessories													
AMP20	U		•	•	•	•	•	•	•	•			
AMPZ	U		•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•
BCZ4	(Vertical)		•	•	•	•	•	•	•	•	•	•	•
BCZ5	(Horizontal)		•	•	•	•	•	•	•	•	•	•	
BCZ9	(Horizontal)												•
Panel to close rear of unit													
PCZ200	All		•	•									
PCZ300	All				•	•							
PCZ500	All						•	•	•	•			
PCZ800	All										•	•	
PCZ1000	All												•
Grille for ceiling mounted units													
GA200	U		•	•									
GA300	U				•	•							
GA500	U						•	•	•	•			
GA800	U										•	•	•
ZXZ	All		•	•	•	•	•	•	•	•	•	•	•

For further concerning control panels and VMF system refer to the dedicated sheets.
****The water valves can be combined with the unit if it is also provided a control panel that controls**
VJP / VJP_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow
(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V
(2) DSC4 is not available with AMPZ

Technical data - with single coil

FCZI			200			250			300			350			400			450		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57
Water flow rate	(1)	l/h	324	258	177	355	278	193	482	391	304	539	431	330	627	503	379	685	551	400
Pressure drop	(1)	kPa	18,0	12,0	6,0	23,0	15,0	7,0	18,0	12,0	7,0	20,0	14,0	8,0	24,0	16,0	9,0	16,0	11,0	6,0
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27
Water flow rate	(2)	l/h	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394
Pressure drop	(2)	kPa	17,5	12,0	6,0	22,0	15,0	8,0	17,5	12,0	8,0	20,5	14,0	8,5	23,5	16,0	9,5	16,0	11,0	6,0
Cooling Performance																				
Total cooling capacity	(3)	kW	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,20	4,03	3,21	2,41
Sensible cooling capacity	(3)	kW	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69
Cooling capacity (latent)	(3)	kW	0,27	0,23	0,18	0,42	0,35	0,27	0,61	0,52	0,42	0,84	0,70	0,56	0,93	0,78	0,61	1,13	0,91	0,72
Water flow rate	(3)	l/h	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414
Pressure drop	(3)	kPa	18,0	12,5	6,5	25,0	17,0	8,5	18,0	13,0	8,0	25,0	17,5	11,0	24,0	16,5	10,0	22,0	15,0	9,0
Fans																				
Centrifugal Fans		n°	1						2						2					
Air flow rate		m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330
Sound level																				
Sound power level	(4)	dB(A)	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37
Sound pressure level		dB(A)	43	38	27	43	38	27	40	33	26	40	33	26	43	36	29	43	36	29
Hydraulic connections																				
Main coil																				
Standard		Ø	1/2"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	14	8	7	14	8	5	13	7	5	13	7	5	18	10	5	18	10	5
Signal 0-10V		%	90	68	44	90	68	44	90	70	52	90	70	52	90	68	49	90	68	49
Power supply			230V~50Hz																	

FCZI			500			550			700			750			900			950		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	8,50	7,31	5,27	9,75	8,34	5,82	11,00	9,80	8,10	12,50	11,30	9,10	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	745	641	462	855	731	510	964	860	710	1096	991	798	1328	1171	945	1500	1264	982
Pressure drop	(1)	kPa	28,0	21,0	12,0	26,0	20,0	10,0	29,1	23,6	16,8	18,0	15,0	10,0	22,0	17,4	12,0	33,0	24,5	15,5
Heating capacity (45°C)	(2)	kW	4,22	3,63	2,62	4,85	4,14	2,89	5,47	4,87	4,03	6,20	5,60	4,50	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(2)	l/h	734	631	455	842	720	502	950	846	699	1079	975	786	1307	1152	930	1476	1245	967
Pressure drop	(2)	kPa	28,0	21,0	12,0	25,5	19,5	10,0	29,0	23,5	16,5	17,5	14,5	10,0	21,5	17,0	12,0	33,0	24,0	15,0
Cooling Performance																				
Total cooling capacity	(3)	kW	4,25	3,69	2,68	4,79	4,13	2,91	5,50	4,89	3,92	6,14	5,34	4,27	6,91	5,00	4,29	8,60	7,32	5,77
Sensible cooling capacity	(3)	kW	3,18	2,73	1,94	3,49	2,98	2,07	4,30	3,76	2,99	4,72	4,05	3,20	5,68	3,78	2,97	5,78	4,87	3,80
Cooling capacity (latent)	(3)	kW	1,07	0,96	0,74	1,30	1,15	0,84	1,20	1,13	0,93	1,42	1,29	1,07	1,23	1,22	1,32	2,82	2,45	1,97
Water flow rate	(3)	l/h	731	634	460	824	711	501	946	841	675	1056	918	734	1189	860	738	1479	1259	992
Pressure drop	(3)	kPa	29,0	22,5	13,0	28,0	21,5	11,5	30,0	24,5	16,5	18,5	14,5	10,0	22,0	12,5	9,5	30,0	22,5	15,0
Fans																				
Centrifugal Fans		n°	2						3						3					
Air flow rate		m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	1140	930	700
Sound level																				
Sound power level	(4)	dB(A)	56	51	42	56	51	42	62	57	50	62	57	50	62	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	48	43	34	54	49	42	54	49	42	54	49	43	53	49	43
Hydraulic connections																				
Main coil																				
Standard		Ø	3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	19	10	4	19	10	4	80	40	30	80	40	30	80	40	30	80	40	30
Signal		%	90	74	50	90	74	50	90	72	56	90	72	56	90	72	56	90	72	56
Power supply			230V~50Hz																	

Data in accordance with Regulation EU 2016/2281

H Maximum speed; **M** Average Speed; **L** Minimum speed

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data - with main + supplementary coil

FCZI			201			301			401		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance											
4 pipe systems											
Heating capacity (65°)	(1)	kW	1,60	1,35	1,02	2,56	2,18	1,80	3,12	2,65	2,21
Water flow rate	(1)	l/h	140	118	89	224	191	158	273	232	186
Pressure drop	(1)	kPa	10,5	7,5	4,5	30,5	23,0	16,5	8,5	6,5	4,5
Cooling Performance											
Total cooling capacity	(2)	kW	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20
Sensible cooling capacity	(2)	kW	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59
Cooling capacity (latent)	(2)	kW	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61
Water flow rate	(2)	l/h	275	221	153	456	374	289	619	503	379
Pressure drop	(2)	kPa	18,0	12,5	6,5	18,0	13,0	8,0	34,0	23,5	14,0
Fans											
Centrifugal Fans		n°		1			2			2	
Air flow rate		m³/h	290	220	140	450	350	260	600	460	330
Sound level											
Sound power level	(3)	dB(A)	51	46	35	48	41	34	51	44	37
Sound pressure level		dB(A)	43	38	27	40	33	26	43	36	29
Hydraulic connections											
Main coil		Ø		1/2"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	14	8	7	13	7	5	18	10	5
Signal 0-10V		%	90	68	44	90	70	52	90	68	49
Power supply			230V~50Hz								

FCZI			501			701			901		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	3,73	3,34	2,59	4,94	4,29	3,66	5,72	5,63	4,73
Water flow rate	(1)	l/h	327	293	227	437	375	320	501	492	414
Pressure drop	(1)	kPa	10,5	8,5	5,5	18,5	14,5	11,0	12,0	12,0	8,5
Cooling Performance											
Total cooling capacity	(2)	kW	4,25	3,69	2,68	5,50	4,89	3,92	6,91	5,00	4,29
Sensible cooling capacity	(2)	kW	3,18	2,73	1,94	4,30	3,76	2,99	5,68	3,78	2,97
Cooling capacity (latent)	(2)	kW	1,07	0,96	0,74	1,20	1,13	0,93	1,23	1,22	1,32
Water flow rate	(2)	l/h	731	635	461	946	841	675	1188	860	738
Pressure drop	(2)	kPa	29,0	22,5	13,0	30,0	24,5	16,5	9,5	14,5	9,5
Fans											
Centrifugal Fans		n°		2			3			3	
Air flow rate		m³/h	720	600	400	1140	930	700	1140	930	700
Sound level											
Sound power level	(3)	dB(A)	56	51	42	62	57	50	62	57	51
Sound pressure level		dB(A)	48	43	34	54	49	42	54	49	43
Hydraulic connections											
Main coil		Ø		3/4"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	19	10	4	80	40	30	80	40	30
Signal 0-10V		%	90	74	50	90	72	56	90	72	56
Power supply			230V~50Hz								

Data in accordance with Regulation EU 2016/2281

H Maximum speed; **M** Average Speed; **L** Minimum speed

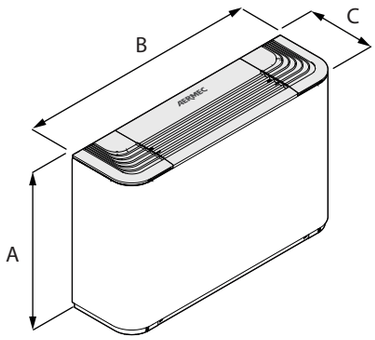
(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C (EUROVENT)

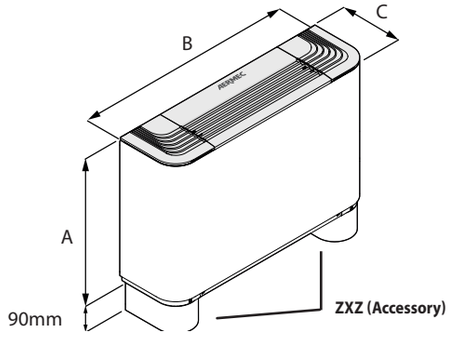
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions and Weights





FCZI		200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901 / 950
Dimensions for all versions																							
A	mm	486				486				486				486				486				591	
A (with feet)	mm	576				576				576				576				576				681	
B	mm	750				980				1200				1200				1320				1320	
C	mm	220				220				220				220				220				220	
Weight	kg	15	15	16	16	17	17	18	18	22	23	24	24	22	23	24	24	29	30	31	31	34	

Cod.: SFCZIUY.05 / 1711

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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FCZ D
FCZI D

Fan coils
Inverter brushless motor
Vertical and floor-mounting installation



Aermec
takes part in the
EUROVENT programme: FCH
The products involved appear on the website
www.eurovent-certification.com

Variable Multi Flow

VMF

INVERTER TECHNOLOGY

ThermApp

Programming from smart device via NFC with ThermApp



Touch Electronic Controller

- **VERY QUIET OPERATION**
- **BACKLIT TOUCH COMMAND WITH PROGRAMMING VIA A SMART DEVICE**
- **TOTAL COMFORT IN EVERY SEASON**

Features

Fan coil with controlled air delivery
The perception of uneven temperature distribution in various settings, especially in the vertical direction, is one of the main factors leading to a drastic reduction in the well-being perceived by occupants.
FCZ_D and FCZI_D are able to provide a pleasant sensation of comfort by directing the air in a way that ensures uniform temperature distribution throughout the setting.
In winter, hot air is direct downwards; in summer, cool air is directed upwards.
They can be installed in any type of 2/4 pipe system and in combination with any heat generator even at low temperatures. Thanks to the availability of several versions and configurations, it is easy to choose the optimal solution for every requirement.

Versions available:
FCZ_D - FCZI D With thermostat on-board the system.
FCZ_DS Without on-board command
FCZI_DT With Touch command on-board the system

- Casing RAL9003, Head RAL 7047
- Three-speed centrifugal fan (**FCZ_D**)
- Electric motor with permanently installed condenser **(FCZ_D)**
- Brushless motor with 0-100% continuous speed variation to ensure the best performance and very low noise levels **(FCZI_D)**
- **Air supply switching at the front or from the top by operating directly on the orientable grille**
- Metallic protective cabinet with rustproofing polyester paint
- Low loss of charge in the heat exchange batteries
- Ease of installation and maintenance
- Air filter class **G2** for all versions; easy to pull out and clean. Shrouds can be pulled out and inspected for easy and effective cleaning
- **Water connections can be reversed** during installation phase
- **In units with the T-Touch electronic thermostat and the ThermApp application, you can simply place the smart device on the fan coil, set the operating modes and the weekly time programming. IT IS ALSO POSSIBLE TO ACCESS A VARIETY OF OTHER INFORMATION SUCH AS THE ALARM LIST, THE NEAREST SAT, ETC.**
Available for Android operating systems.

Accessories

Control panels

- **T-TOUCH**: Touch control installation on-board the fan coil.
  The ThermApp application is also available for remote control with smart devices with the Android operating system.

A range of dedicated controls is available, on the wall or on-board the machine. It is essential to choose between these panels for simple and complete adjustment: for further details, refer to the dedicated info card.

VMF System

- **VMF-E0X**: thermostat accessory mounted the fan coil flange, equipped as standard with air and water probes; manages 2 pipes, 4 pipes.
- **VMF-E1X**: Thermostat for serial communication
- **VMF-E2Z**: User interface to be installed on-board with two switches: one for temperature and one for speed control
- **VMF-E4**: Wall-mounted user interface used to control functions through the capacitive touch keyboard.
- **VMF-E5**: Recessed wall-mounted panel allowing control of functions through a capacitive keyboard of a complete hydronic system.
- **VMF-E18X**: Thermostat for serial communication
- **VMF-SW:** water probe used if required in place of the standard unit supplied with the VMF-E1X thermostat for mounting it up line of the valve.
- **VMF-SW1:** additional water probe to be used for 4-pipe systems with the VMF-E1X thermostat for maximum control in the cold range

Water Valve Kit

- **VCZ_X4**: **Valve kit for systems with 4 pipes and fan coils with single battery with 2 fittings.** Kit comprising a special motor-driven 3-way valve with insulating shells, couplings and pipes in insulated copper Version _X4L for LH fitting fan coils. Version _X4R for RH fitting fan coils. Power supply 230V~50Hz;
- **VCZ or VCF**: **Kit comprising a motor-driven 3-way valve** with insulating shell, couplings and pipes in insulated copper For main battery. Versions with 230V and 24V~50Hz power supplies
- **VCZD or VCFD**: **2-way motor-driven valve kit** with copper fittings and pipes. For main battery. Versions with 230V and 24V~50Hz power supplies
- **VJP/VJP_M**: **Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components**. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Installation accessories

- **AMPZ**: Kit for overhang installation.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **PCZ**: Sheet metal panel closing the rear of the unit.
- **GA**: Installation grille masking plumbing and electrical utilities. Also compatible for floor mounting.
- **ZXZ**: Pair of stylish structural feet
- **FIKIT**: metal supports for vertical installation of the GA grille.

For details about the control panels and the VMF system, refer to the dedicated info cards

		Sizes available for 2-pipe system (Main Battery)			
FCZ		**200**	**300**	**400**	**500**
Control panels and dedicated accessories					
T-TOUCH	DS	•	•	•	•
PTINZ	DS	•	•	•	•
VMF System					
VMF-E0X	DS	•	•	•	•
VMF-E1X	DS	•	•	•	•
VMF-E18X	FCZI-D	•	•	•	•
Water Valves *					
Valve kit for 4 pipe systems with standard battery					
VCZ1X4L-R	(DS+syst. VMF or T-TOUCH) -(D+syst. VMF or DT)	•			
VCZ2X4L-R	(DS+syst. VMF or T-TOUCH) -(D+syst. VMF or DT)		•	•	•
VCZ3X4L-R	(DS+syst. VMF or T-TOUCH) -(D+syst. VMF or DT)				
3-way valve kit					
VCZ41/4124	(1)	•			
VCZ42/4224	(1)		•	•	•
VCZ43/4324	(1)				
2-way valve kit					
VCZD1/124	(1)	•			
VCZD2/224	(1)		•	•	•
VCZD3/324	(1)				
Combined Adjustment and Balancing Valve Kit					
VJP060		•	•		
VJP090				•	•
VJP150					
VJP060M	(1)	•	•		
VJP090M	(1)			•	•
VJP150M	(1)				
Installation accessories					
DSC4	(2)	•	•	•	•
Rear closure panels					
PCZ100					
PCZ200		•			
PCZ300			•		
PCZ500				•	•
PCZ800					
PCZ1000					
Stylish structural feet					
ZXZ		•	•	•	•
GA + F_KIT		•	•	•	•

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V
(2) The DSC4 accessory is not compatible with the AMPZ accessory

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field	Description
1,2,3	**FCZ**
4	**Size**
	2-3-4-5
5	**Main Battery**
0	Standard
6	**Secondary Battery**
0	No battery
7.8	**Version**
D	Dualjet with on-board thermostat
DS	Dualjet without on-board thermostat

Field	Description
1,2,3,4	**FCZI**
5	**Size**
	2-3-4-5
6	**Main Battery**
0	Standard
7	**Secondary Battery**
0	No battery
8,9	**Version**
D	Dualjet with on-board control
DT	Dualjet with T-Touch Thermostat

Technical data

FCZ_D - FCZI_D			**200**			**300**			**400**			**500**		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating performance														
2-pipe systems														
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	5,50	4,46	3,47	7,15	5,74	4,32	8,50	7,31	5,27
Water flow rate	(1)	l/h	324	258	177	482	391	304	627	503	379	745	641	462
pressure drops	(1)	kPa	18,0	12,0	6,0	18,0	12,0	7,0	24,0	16,0	9,0	28,0	21,0	12,0
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,73	2,21	1,72	3,55	2,85	2,14	4,22	3,63	2,62
Water flow rate	(2)	l/h	319	254	174	475	385	299	617	495	373	734	631	455
pressure drops	(2)	kPa	17,5	12,0	6,0	17,5	12,0	8,0	23,5	16,0	9,5	28,0	21,0	12,0
Cooling performance														
Total cooling output	(3)	kW	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20	4,25	3,69	2,68
Sensitive cooling output	(3)	kW	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59	3,18	2,73	1,94
Cooling capacity (latent)	(3)	kW	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61	1,07	0,96	0,74
Water flow rate	(3)	l/h	275	221	153	456	374	288	619	503	379	731	634	460
pressure drops	(3)	kPa	18,0	12,5	6,5	18,0	13,0	8,0	24,0	16,5	10,0	29,0	22,5	13,0
Fan														
Centrifugal fan		no.		1			2			2			2	
Air flow rate		m³/h	290	220	140	450	350	260	600	460	330	720	600	400
Noise levels														
Sound power	(4)	dB(A)	50	43	31	48	41	34	51	44	37	56	51	42
Sound pressure		dB(A)	42	35	23	40	33	26	43	36	29	48	43	34
Connections diameter														
Main Battery														
Standard coil		Ø		1/2"			3/4"			3/4"			3/4"	
Oversized battery		Ø		/			/			/			/	
Electrical characteristics														
Absorbed power	FCZ_D	W	35	25	13	44	33	25	57	43	30	76	52	38
Electrical wiring	FCZ_D		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Absorbed power	FCZI_D	W	14	8	7	13	7	5	18	10	5	19	10	4
0-10V Signal	FCZI_D	%	90	68	44	90	70	52	90	68	49	90	74	50
Power supply			230V~50Hz											

H maximum speed; **M** average speed; **L** minimum speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

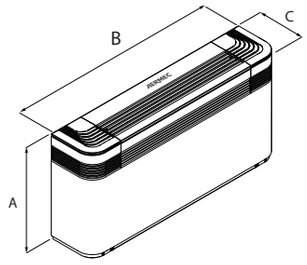
(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

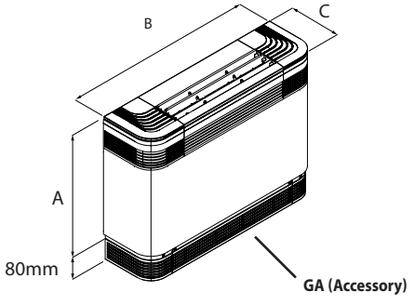
(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power based on measures made in compliance with Eurovent regulation 8/2

Sound pressure measured in room with volume V = 85 m³, reverberation time t = 0.5s direction factor Q = 2; distance r=2.5m.

Sizes and weights





FCZ_D - FCZI_D		200	300	400	500
A	mm	486	486	486	486
A (with feet)	mm	576	576	576	576
B	mm	750	980	1200	1200
C	mm	220	220	220	220
Weight without feet	kg	15	17	23	22

Code: SFCZ_D and FCZI_DUI.00 / 1709

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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Numero Verde
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FCZ H

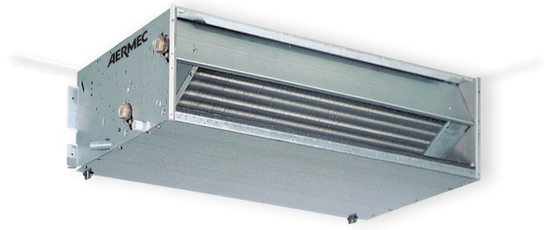
Fan coils with germicidal lamp
Floor and wall-mounting installation

Aermec participates in the EUROVENT program: FCH
The products involved appear on the website
www.eurovent-certification.com

VMF



FCZ_H



FCZ_HP
FCZ_HPO

• GERMICIDAL LAMP INCORPORATED
• IDEAL FOR PLACES WHERE PERFECT HYGIENE IS REQUIRED
• 3–ROW COIL

Features

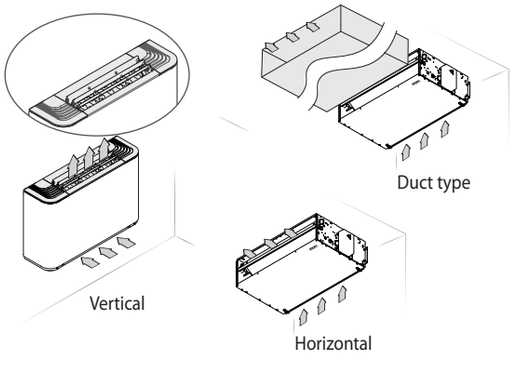
Fan coil with built-in photocatalytic bacterial lamp suitable for air conditioning in settings requiring the highest degree of hygiene, such as:

- hospitals
- dentists' surgeries
- doctors' and vets' surgeries
- analysis laboratories
- pharmaceutical companies
- waiting rooms
- beauticians
- homes
- offices
- public premises

Available in various configurations depending on the type of installation
FCZ_H: furnished version, for vertical and horizontal installation
FCZ_HP: non-furnished version, with 3-speed motor, for horizontal and vertical wall mounting.
FCZ_HPO: non-furnished version, with high-speed motor, for horizontal and vertical wall mounting.

- Casing RAL9003, Head RAL 7047
- Three-speed centrifugal fan.
- Electric motors with permanently inserted condensers
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille. When the grille is closed, the fan coil automatically switches OFF
- Low loss of charge in the heat exchange batteries
- Ease of installation and maintenance
- Air filter class **G2** for all versions; easy to pull out and clean.
- Shrouds can be pulled out and inspected for easy and effective cleaning
- **Water connections can be reversed** during installation stage
- **All versions of the FCZ_H series are supplied without a control panel**.

Description of versions



Recessed versions

- **FCZ_H**
  - Furnished
- **FCZ_HP**
  - Recessed, unfurnished
- **FCZ_PO**
  - Recessed, can be ducted

Vertical and horizontal installation
- For 2/4-pipe systems

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field		Description
1,2,3		**FCZ**
4		**Size**
		2-3-4-5-6-9
5		**Main Battery**
	0	Standard
	5	Oversized
6		**Secondary Battery**
	0	No battery

7,8,9	Version
H	Furnished unit with 3 speed motor
HP	Wall-mounted unit with 3-speed motor
HPO	Wall-mounted unit with 7-speed motor

Control panels

A range of dedicated controls is available, on the wall or on-board the machine. It is essential to choose between these panels for simple and complete adjustment: for further details, refer to the dedicated info card.

Probes and dedicated accessories for the control panel

- **SW3:** water temperature probe that allows automatic season change in electronic thermostats with water-side changeover
- **SIT 3 - 5**: Thermostat Interface Cards. They allow the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil of the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipes systems); sends the commands of the thermostat to the fan coils network.

VMF System

- **VMF-E0X**: thermostat accessory mounted the fan coil flange, equipped as standard with air and water probes; manages systems with 2, 4 pipes, 2 pipes + Plasma Cluster, 2 pipes + UV lamp, 2 pipes + Resistor. Equipped with external contact to be used as remote ON-OFF at low voltage. This thermostat uses a 2-wire serial communication to create a single fan coil zone (1 master + maximum 5 slaves). The thermostat is protected by a fuse
- **VMF-E2Z**: User interface to be installed on-board with two switches: one for temperature and one for speed control
- **VMF-E4**: Wall-mounted user interface used to control functions through the capacitive touch keyboard.
- **VMF-E5**: Recessed wall-mounted panel allowing control of functions through a capacitive keyboard of a complete hydronic system.
- **VMF-E1X**: Thermostat for serial communication
- **VMF-SW**: water probe used if required in place of the standard unit supplied with the VMF-E1X thermostat for mounting it up line of the valve.
- **VMF-SW1:** additional water probe to be used for 4-pipe systems with the VMF-E1 X thermostat for maximum control in the cold range

Water Valve Kit

- **VCZ or VCF**: **Kit comprising a motor-driven 3-way valve** with insulating shell, couplings and pipes in insulated copper For main, standard or oversized battery. Versions with 230V and 24V~50Hz power supplies
- **VCZD or VCFD**: **2-way motor-driven valve kit** with copper fittings and pipes. For main, standard or oversized battery. Versions with 230V and 24V~50Hz power supplies
- **VJP/VJP_M**: **Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components**. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Installation accessories

- **AMP**: Wall mounting kit for FCZ_H versions.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **PCZ**: Sheet metal panel closing the rear of the unit.
- **GA**: Ceiling installation grille masking plumbing and electrical utilities. Also compatible for floor mounting.
- **ZXZ**: Pair of stylish structural feet

Installation accessories

- **AMP**: Kit for overhang installation.
- **BC**: Auxiliary condensate drip tray.
- **CHF**: VentilCassaforma, galvanized sheet metal template for P versions used to implement a space for housing the fan coil directly on the wall.
- **ZX**: Pair of stylish structural feet
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.

Duct type installation accessories

- **PA**: Plenum suction assembly in galvanised sheet metal, complete with suction couplings for circular-section ducts.
- **PA-F**: Plenum suction assembly that allows intake and delivery on the same side; suitable for all installations where the machine needs to be positioned outside the air-conditioned rooms in order to minimise noise levels and facilitate maintenance operations.
- **PM**: Delivery plenum in galvanised sheet metal, externally insulated, complete with plastic delivery couplings for circular section ducts.
- **RD**:Straight delivery coupling for canalisation.
- **RDA**: Straight suction coupling for canalisation.
- **RP**: 90° delivery coupling for canalisation.
- **RPA**: 90° suction coupling for canalisation.
- **RDA_V:** Straight intake fitting with rectangular flange.
- **RDAC_V:** Straight intake fitting with circular flange.
- **RPA_V:** Intake plenum with rectangular flange.
- **RDMC_V:** Straight delivery fitting with circular flange. Insulated internally.
- **PA_V:** Intake plenum with circular flanges. Plastic flanges.
- **RPM_V:** Delivery plenum with rectangular flange. Insulated internally.
- **PM_V:** Delivery plenum with circular flanges. Insulated internally. Plastic flanges.
- **KFV10:** Circular flange kit for intake/delivery plenum.

Delivery and intake grilles:

- **GA:** Intake grille with fixed fins.
- **GAF:** Intake grille with fixed fins and filter.
- **GM:** Delivery grille with adjustable fins.

		Sizes available for 2-pipe system (Main Battery)						
FCZ H		**200**	**300**	**400**	**500**	**600**	**900**	**950***
Control panels and dedicated accessories								
T-TOUCH	H	•	•	•	•	•	•	•
PTINZ	H	•	•	•	•	•	•	•
PXAE	all	•	•	•	•	•	•	•
SW3		In combination with PXAE						
SIT3		In combination with PXAE						
SIT5		In combination with PXAE						
VMF System								
VMF-E0X		•	•	•	•	•	•	•
VMF-E1X		•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•
Water Valves **								
3-way valve kit								
VCZ41/4124	(2)	•						
VCZ42/4224	(2)		•	•	•	•		
VCZ43/4324	(2)						•	•

**** Water valves can be combined with units if a control panel is also envisaged**

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M

Compatibility of accessories

			Sizes available for 2-pipe system (Main Battery)						
FCZ H			**200**	**300**	**400**	**500**	**600**	**900**	**950***
2-way valve kit									
VCZD1/124		(2)	•						
VCZD2/224		(2)		•	•	•	•		
VCZD3/324		(2)						•	•
Combined Adjustment and Balancing Valve Kit									
VJP060			•	•					
VJP090					•	•	•		
VJP150							•	•	•
VJP060M		(2)	•	•					
VJP090M		(2)			•	•	•		
VJP150M		(2)					•	•	•
Installation accessories									
AMP20			•	•	•	•			
AMPZ			•	•	•	•	•	•	
DSC4	P-PO	(3)	•	•	•	•	•	•	
CHF22	P		•						
CHF32	P			•					
CHF42	P				•	•			
CHF62	P						•	•	
BC4	P-PO	(4)	•	•	•	•	•	•	
BC5	P-PO	(5)	•	•	•	•	•	•	
BC6	P-PO	(5)							•
BC8	P-PO	(5)	•	•	•	•	•	•	
BC9	P-PO	(5)							•
Rear closure panels									
PCZ100									
PCZ200			•						
PCZ300				•					
PCZ500					•	•			
PCZ800							•		
PCZ1000								•	
Grille for ceiling installation									
GA100									
GA200			•						
GA300				•					
GA500					•	•			
GA800							•	•	
Plenum for duct type installation									
RDA000V	PO		•						
RDA100V	PO			•					
RDA200V	PO				•	•			
RDA300V	PO						•	•	•
RPA000V	PO		•						
RPA100V	PO			•					
RPA200V	PO				•	•			
RPA300V	PO						•	•	•
RDAC000V	PO		•						
RDAC100V	PO			•					
RDAC200V	PO				•	•			
RDAC300V	PO						•	•	•
PA000V	PO		•						
PA100V	PO			•					
PA200V	PO				•	•			
PA300V	PO						•	•	•
PM000V	PO		•						
PM100V	PO			•					
PM200V	PO				•	•			
PM300V	PO						•	•	•
RPM000V	PO		•						
RPM100V	PO			•					
RPM200V	PO				•	•			
RPM300V	PO						•	•	•
RDMC000V	PO		•						
RDMC100V	PO			•					
RDMC200V	PO				•	•			
RDMC300V	PO						•	•	•
Stylish structural feet									
ZXZ			•	•	•	•	•	•	

**** Water valves can be combined with units if a control panel is also envisaged**

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M

(3) The DSC4 accessory is not compatible with the AMPZ accessory and VCZ series 1-2-3-4 X4L-R valves

(4) For vertical installation. The basin is not compatible with VCZ-VCZD / VCF-VCFD valves

(5) For horizontal installation

Technical data

FCZ_H			200			300			400			500			600			900			950*		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating performance																							
2-pipe systems																							
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	5,50	4,46	3,47	7,15	5,74	4,32	8,50	7,31	5,27	10,00	8,10	6,50	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	324	258	177	482	391	304	627	503	379	745	641	462	877	710	570	1328	1171	945	1500	1264	982
pressure drops	(1)	kPa	18,0	12,0	6,0	18,0	12,0	7,0	24,0	16,0	9,0	28,0	21,0	12,0	26,0	17,8	12,0	22,0	17,4	12,0	33,0	24,5	15,5
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,73	2,21	1,72	3,55	2,85	2,14	4,22	3,63	2,62	4,97	4,03	3.32	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(2)	l/h	319	254	174	475	385	299	617	495	373	734	631	455	863	699	561	1307	1152	930	1476	1245	967
pressure drops	(2)	kPa	17,5	12,0	6,0	17,5	12,0	8,0	23,5	16,0	9,5	28,0	21,0	12,0	25,5	17,5	12,0	21,5	17,0	12,0	33,0	24,0	15,0
Cooling performance																							
Total cooling output	(3)	kW	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20	4,25	3,69	2,68	4,65	3,90	3,22	6,91	5,00	4,29	8,60	7,32	5,77
Sensitive cooling output	(3)	kW	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59	3,18	2,73	1,94	3,92	3,17	2,56	5,68	3,78	2,97	5,78	4,87	3,80
Cooling capacity (latent)	(3)	kW	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61	1,07	0,96	0,74	0,73	0,73	0,66	1,23	1,22	1,32	2,82	2,45	1,97
Water flow rate	(3)	l/h	275	221	153	456	374	288	619	503	379	731	634	460	800	671	554	1189	860	738	1479	1259	992
pressure drops	(3)	kPa	18,0	12,5	6,5	18,0	13,0	8,0	24,0	16,5	10,0	29,0	22,5	13,0	26,0	19,0	13,5	22,0	12,5	9,5	30,0	22,5	15,0
Fan																							
Centrifugal fan		no.	1			2			2			2			3			3			3		
Air flow rate		m³/h	290	220	140	450	350	260	600	460	330	720	600	400	920	720	520	1140	930	700	1140	930	700
Noise levels																							
Sound power	(4)	dB(A)	51	46	35	48	41	34	51	44	37	56	51	42	57	51	42	62	57	51	61	57	51
Sound pressure		dB(A)	43	38	27	40	33	26	43	36	29	48	43	34	49	43	34	54	49	43	53	49	43
Connections diameter																							
Main Battery																							
Standard coil		Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Oversized battery		Ø	/			/			/			/			/			/			/		
Electrical characteristics																							
Absorbed power		W	33	29	25	44	33	25	57	43	30	76	52	38	91	60	38	106	80	59	106	80	59
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1

H maximum speed; **M** average speed; **L** minimum speed

*** Size 950 is only available for HP and HPO versions**

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

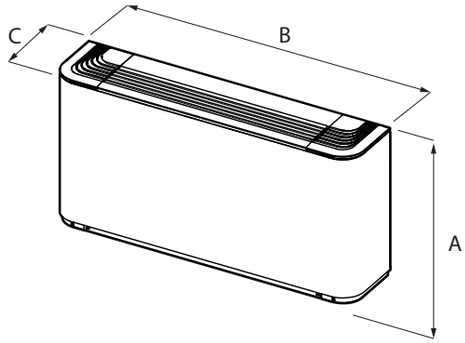
(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power based on measures made in compliance with Eurovent regulation 8/2

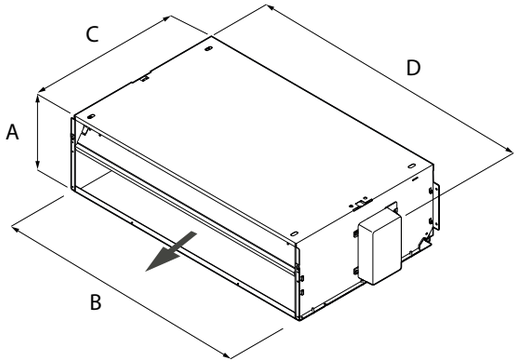
Sound pressure (weighted A) measured in room with volume V = 85 m³, reverberation time t = 0.5s direction factor Q = 2; distance r=2.5m.

Sizes and weights



FCZ-H		200	300	400	500	600	900
Dimensions for all configurations							
A	mm	486	486	486	486	486	591
	mm*	576	576	576	576	576	681
B	mm	750	980	1200	1200	1320	1320
C	mm	220	220	220	220	220	220
Weight without feet	kg	15	17	23	22	29	34

* Height with ZXZ accessory feet



FCZ-HP / HPO		200	300	400	500	600	900	950
Dimensions for all configurations								
A	mm	216	216	216	216	216	216	216
B	mm	562	793	1013	1013	1147	1147	1147
C	mm	453	453	453	453	453	558	558
D*	mm	522	753	973	973	1122	1122	1122
Weight	kg	12	14	20	23	29	32	32

* Maximum overall dimensions

Cod.: SFCZHUY.00 / 1712

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AERMEC

Omnia HL

Fan coils
Universal installations for residential applications

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT program: FCH
the products are present on the site
www.eurovent-certification.com



Variable Multi Flow®

VMF

GIUGIARO DESIGN

White colour:
cover: RAL 9002
top and supports: RAL 7044

Grey colour:
cover: FIAT 656
top and supports: RAL 7031

Plasmacluster

Plasmacluster
(only for Omnia HL PC and PCM)

Features

- HL (High Line) fan coils for both horizontal and vertical installation
- 4 sizes and 12 versions:
  HL: white body with switch
  HL M: metallic grey body with switch
  HL N: white body with electronic thermostat VMF
  HL NM: metallic grey body with electronic thermostat VMF
  HL L: white cabinet with Self-Closing Louver and electronic thermostat
  HL LM: grey cabinet with Self-Closing Louver and electronic thermostat
  HL PC: white body with electronic thermostat and Plasmacluster filter (factory-mounted only)
  HL PCM: metallic grey body with electronic thermostat and Plasmacluster filter (factory-mounted only)
  HL S: white body with no on-board controls VMF System compatible
  HL SM: metallic grey body with no on-board controls. VMF System compatible
- 3-speed centrifugal fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- New adjustable air delivery louver
- Automatic power-off function with closure of the air delivery louver
- Slim dimensions
- Electronic temperature control, automatic fan speed change, automatic season changeover and automatic on - off (with electronic thermostat)
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Full compliance with safety regulations

Accessories

- **AMP**: Kit for wall/ceiling mounting. Standard on S and SM versions.
- **BC**: Auxiliary condensate drip tray.
  BC 10 for vertical installation
  BC 20 for horizontal installation
- **DSC5**: Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **PCH - PCHM**: Back closing panel, white (PCHM) or gray (PCHM).
- **SIT 3-5**: Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
  SIT3: commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
  SIT5: commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW**: Water probe which enables automatic season change-over thanks to the specific electronic thermostats.
- **VCH**: Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD**: Kit comprising motorized 2-way valve, unions and copper pipes.
- **ZH1**: White feet for floor-standing installations
- **ZH1B**: White feet for floor-standing installations with skirting board.
- **ZH1M**: Gray feet for floor-standing installations
- **ZH1MB**: Gray feet for floor-standing installations with skirting board.
- **Control panels and VMF system**: the characteristics of the control panels are described on the appropriate card.

Omnia HL	11	16	26	36	Versions
FMT10	•	•	•	•	S-SM
PX2• PX2C6	•	•	•	•	S-SM
PXAE	•	•	•	•	S-SM
TPF• TPFW	•	•	•	•	S-SM
WMT05• WMT10	•	•	•	•	S-SM
VMF-E4• VMF-E4D	•	•	•	•	S-SM
VMF-E2H	•	•	•	•	S-SM
VMF-E0X• VMF-E1X	•	•	•	•	S-SM
AMP10	•	•	•	•	Alls but S, SM
BC10*	•	•	•	•	Alls
BC20*	•	•	•	•	Alls
DSC5*	•	•	•	•	Alls
PCH/PCHM	•	•	•	•	Alls
SIT3	•	•	•	•	S-SM
SIT5	•	•	•	•	S-SM
SW3	•	•	•	•	S-SM
SWA	•	•	•	•	S-SM
VCH	•	•	•	•	Alls but L, LM
VCHD	•	•	•	•	Alls but L, LM
ZH1/ZH1B	•	•	•	•	Alls
ZH1M/ZH1BM	•	•	•	•	Alls

PX2C6, PX2 panel in multiple 6-piece pack, **for only wall installation**
* = The DSC5 accessory is not compatible BC10 - BC20 - VMF system accessories

Technical data

Omnia HL			11			16			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	2,0	1,0	1,0	4,0	2,0	1,0	11,0	8,0	5,0	7,0	5,0	3,0
Heating capacity (45°C)	(2)	kW	1,00	0,73	0,52	1,44	1,05	0,76	2,29	1,90	1,44	2,95	2,42	1,75
Water flow rate	(2)	l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2,0	1,0	1,0	2,5	2,5	1,5	11,0	8,0	5,0	18,0	12,5	7,0
Cooling Performance														
Total cooling capacity	(3)	kW	0,82	0,67	0,53	1,17	0,87	0,69	1,99	1,65	1,26	2,79	2,26	1,63
Sensible cooling capacity	(3)	kW	0,68	0,52	0,38	0,96	0,69	0,52	1,61	1,30	0,97	2,00	1,59	1,13
Latent Cooling capacity	(3)	kW	0,14	0,15	0,15	0,21	0,18	0,17	0,38	0,35	0,29	0,79	0,67	0,50
Water flow rate	(3)	l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	2,0	1,5	1,0	5,0	3,0	2,2	11,0	8,0	5,0	19,0	13,0	6,8
Fans														
Fan - Centrifugal		n°	1						2					
Air flow rate		m³/h	180	120	80	240	160	110	350	270	190	460	350	240
Sound data														
Sound power level	(4)	dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections														
Standard coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	18	12	8	32	25	23	35	27	24	42	35	30
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz											

Data in accordance with Regulation EU 2016/2281

H max. speed; **M** med. speed; **L** min. speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

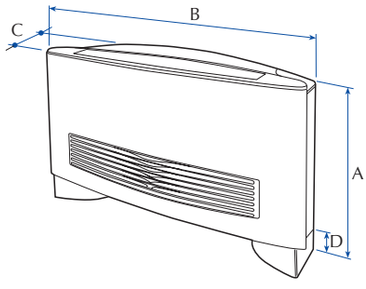
(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

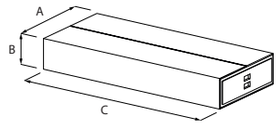
(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensions (mm)





PACKAGING design example

Mod Omnia		HL 11	HL 16	HL 26	HL 36
A	mm	600	605	615	623
B	mm	640	750	980	1200
C	mm	187	189	191	198
D	mm	93	93	93	93
Weight[1]	kg	13,6	14,6	17,6	20,6
Packaging Dimensions					
A/B/C	mm	590/275/710	590/275/820	590/275/1050	590/275/1270

(1) Standard configuration without acessories

Cod.: SOHLUY23 / 1711

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Omnia UL

Fan coils
Universal installations for residential applications

Aermec
participate in the EUROVENT
program: FCH
the products are present on the site
www.eurovent-certification.com



Variable Multi Flow
VMF

Plasmacluster
(only for Omnia UL PC)

White colour:
cover: RAL 9002
top and supports: RAL 7044

Features

- UL (Universal Line) fan coils for both horizontal and vertical installation
- **Versions**:
  UL-S: version without switch, with cabinet. Compatible with VMF System
  UL: version with switch and cabinet
  UL-C: version with electronic thermostat and with cabinet
  UL-PC: version with electronic thermostat and Plasmacluster filter (factory-mounted only) and cabinet
- **Versions compatible with VMF System.**
- **Fan cleaning**: Omnia fan coils allow fan blades to be easily cleaned. It is now possible to remove the fan volute (it contains the fan blades) and clean it periodically.
- **Condensate drip tray cleaning**: Thanks to a new drip tray fitting, it is now easier to clean it with Omnia fan coils. This important solution avoids, in the long run, bacteria, germs and mould to grow up, in the drip tray because of the air humidity.
- **Precharged electrostatic filter**: Omnia fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.
- **PLASMACLUSTER ionising filter**: Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. Using a series of electric shocks, "Plasmacluster" causes the water molecules present in the air to separate into positive and negative ions. These ions neutralise the gas pollutant molecules, forming products that are normally present in clean air. The result is in the air: you can finally breath clean, odour-free ionised air.
- **Silent operation**: Thanks to the use of special centrifugal fans, Omnia fan coils operation is extremely silent and offers the maximum acoustic comfort.
- 3-speed centrifugal fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- Adjustable air delivery louver
- Automatic power-off function with closure of the air delivery louver
- Slim dimensions
- Electronic temperature control, automatic fan speed change, automatic season changeover and automatic on - off (with electronic thermostat)
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Air filter easy to remove and to clean
- Full compliance with safety regulations

Accessories

- **AMP**: Kit for wall/ceiling mounting. Standard on P and S versions.
- **BC**: Auxiliary condensate drip tray.
  BC 10 for vertical installation
  BC 20 for horizontal installation
- **DSC5**: Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **GU**: Aspiration grille, covers the front space between the stands, does not interfere with the air filter. **Use with ZU stands compulsory.**
- **PCU**: Rear cover panel.
- **SIT 3-5**: Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
  SIT3: commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
  SIT5: commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW**: Water probe wich enables automatic season change-over thanks to the specific electronic thermostats.
- **VCH**: Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD**: Kit comprising motorized 2-way valve, unions and copper pipes.
- **ZU**: Feet for floor-standing solutions.
- **Control panels and VMF System**: The control panels are described in a separate document.

Omnia UL_S_C_PC		vers.	11	16	26	36
PX2 o PX2C6	(1)	S	•	•	•	•
PXAE		S	•	•	•	•
PXLM		S	•	•	•	•
TPF -TPFW		S	•	•	•	•
WMT05		S	•	•	•	•
WMT10		S	•	•	•	•
VMF-E4 o E4D		S	•	•	•	•
VMF-E0 o E1		S	•	•	•	•
AMP10		C-PC	•	•	•	•
BC10		Alls	•	•	•	•
BC20		Alls	•	•	•	•
DSC5	(2)	Alls	•	•	•	•
SIT3		S	•	•	•	•
SIT5		S	•	•	•	•
SW3		C-PC	•	•	•	•
VCH		Alls	•	•	•	•
VCHD		Alls	•	•	•	•
ZU		S-C-PC	·	·	·	·

(1) PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation
(2) The DSC5 accessory is not compatible BC10 - BC20 accessories.

Technical data

Omnia UL			11			16			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	2,0	1,0	1,0	4,0	2,0	1,0	11,0	8,0	5,0	7,0	5,0	3,0
Heating capacity (45°C)	(2)	kW	1,00	0,73	0,52	1,44	1,05	0,76	2,29	1,90	1,44	2,95	2,42	1,75
Water flow rate	(2)	l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2,0	1,0	1,0	2,5	2,5	1,5	11,0	8,0	5,0	18,0	12,5	7,0
Cooling Performance														
Total cooling capacity	(3)	kW	0,82	0,67	0,53	1,17	0,87	0,69	1,99	1,65	1,26	2,79	2,26	1,63
Sensible cooling capacity	(3)	kW	0,68	0,52	0,38	0,96	0,69	0,52	1,61	1,3	0,97	2,00	1,59	1,13
Cooling capacity (latent)	(3)	kW	0,14	0,15	0,15	0,21	0,18	0,17	0,38	0,35	0,29	0,79	0,67	0,50
Water flow rate	(3)	l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	2,0	1,5	1,0	5,0	3,0	2,2	11,0	8,0	5,0	19,0	13,0	6,8
Fans														
Fan - Centrifugal		n°	1						2					
Air flow rate		m³/h	180	120	80	240	160	110	350	270	190	460	350	240
Sound data														
Sound power level	(4)	dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections														
Standard coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	18	12	8	32	25	23	35	27	24	42	35	30
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz											

Data in accordance with Regulation EU 2016/2281

H max. speed; **M** med. speed; **L** min. speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

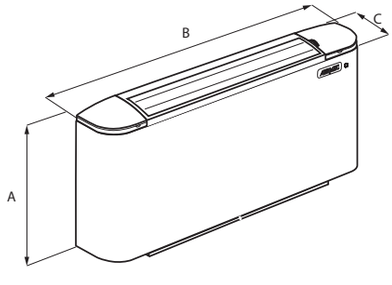
(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

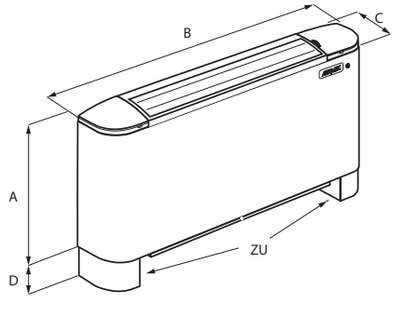
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

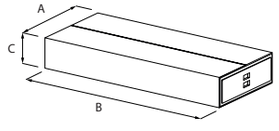
Dimensions (mm)



Wall installation



Floor installation



PACKAGING design example

Mod Omnia		UL 11	UL 16	UL 26	UL 36
A		513	513	513	513
B		640	750	980	1200
C		173	173	173	173
D		93	93	93	93
Weight [1]	kg	12,5	13,5	16,5	19,5
Packaging Dimensions					
A/B/C	mm	590/275/710	590/275/820	590/275/1050	590/275/1270

(1) Standard configuration without acessories

Cod.: SOULUY21/1711

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www.aermec.com

Omnia ULI

Fan coils with Inverter Brushless motor (EC)
Universal installation for residential use



INVERTER TECHNOLOGY

Plasmacluster
(only for Omnia UL PC)

White
RAL 9002 Case
RAL 7044 Head and Feet

- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3–SPEED MOTOR**
- **FULLY SILENT FUNCTIONING**

Features

Fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with a state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electrical savings. It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

Version without on-board thermostat, vertical and horizontal installation:

ULI-S: version with cabinet without control but compatible with the VMF system or with other control panels that can be supplied as accessories.

Version with on-board thermostat, only vertical installation:

ULI-C: version with cabinet and electronic thermostat

ULI-PC: version with cabinet, electronic thermostat and Plasmacluster filter

- Silent functioning thanks to the special centrifugal fans with 0-100% continual speed variation Brushless motor.
- Adjustable air distribution grid
- Automatic fan coil switch-off when the air distribution grid is closed
- Electronic temperature adjustment, automatic speed change on the fan, seasonal change and automatic switch-on and off (version with thermostat)
- Reversibility of hydraulic connections during installation
- Low pressure drop in heat exchange coils
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning.

Accessories

Accessories for the S version without on-board thermostat

- **WMT21**: Electronic thermostat for wall installation
- **SWAI**: Water temperature probe for WMT21 panels (2 m cable length)

VMF system

- **VMF-E18**: Thermostat for serial communication
- **VMF-E2D**: User interface to install on the machine with two selectors: one to control the temperature and one for the speed
- **VMF-E4**: The wall user interface allows you to control the functions via a capacitive touch keyboard.
- **VMF-E5**: The wall recessed panel allows you to control the functions of a complete hydronic system via a capacitive touch keyboard.
  For further information on the thermostats and the VMF system, refer the the specific data sheet.
- **BC20**: Auxiliary condensate drip tray for horizontal installation

Accessories for the C-PC versions with on-board thermostat.

- **PTI2**: **Standard installed on-board electronic thermostat**
- **AMP10**: Kit for wall installation without feet

Accessories available for all versions

- **DSC5**: Condensate draining device when level differences must be exceeded. DSC5 is not compatible with BC10 - BC20.
- **BC10**: Auxiliary condensate drip tray for vertical installation
- **GU**: Intake grid covers the front space between the feet and does not interfere with the air filter.
- **PCU**: Rear closing panel
- **VCH**: Kit composed of 3-way motorised valve and copper pipes and connections.
- **VCHD**: Kit composed of 2-way motorised valve and copper pipes and connections.
- **ZU**: Feet for floor assembly.

Omnia UL_I		vers.	16	26	36
Accessories for S version without thermostat					
Thermostat					
WMT21		S	•	•	•
SWAI		S	•	•	•
VMF system		S			
VMF-E2D		S	•	•	•
VMF-E4		S	•	•	•
VMF-E5	(2)	S	•	•	•
BC10 or BC20		S	•	•	•

Omnia UL_I		vers.	16	26	36
Accessories for the C-PC versions with thermostat					
PTI2		C-PC	as per standard	as per standard	as per standard
AMP10	(1)	C-PC	•	•	•
BC10		C-PC	•	•	•
Accessories available for all versions					
DSC5	(2)	C-PC-S	•	•	•
GU	(3)	C-PC-S	•	•	•
PCU		C-PC-S	•	•	•
VCH		C-PC-S	•	•	•
VCHD		C-PC-S	•	•	•
ZU		C-PC-S	•	•	•

(1) Standard AMP10 for S versions
(2) DSC5 is not compatible with trays BC10 - BC20
(3) It must be paired with ZU feet.

Technical data

Omnia UL_I			16			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance											
2 pipe configuration											
Heating capacity (70°C)	(1)	kW	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	4,0	2,0	1,0	11,0	8,0	5,0	7,0	5,0	3,0
Heating capacity (45°C)	(2)	kW	1,44	1,05	0,76	2,29	1,90	1,44	2,95	2,42	1,75
Water flow rate	(2)	l/h	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2,5	2,5	1,5	11,0	8,0	5,0	18,0	12,5	7,0
Cooling Performance											
Total cooling capacity	(3)	kW	1,17	0,87	0,69	1,99	1,65	1,26	2,79	2,26	1,63
Sensible cooling capacity	(3)	kW	0,96	0,69	0,52	1,61	1,30	0,97	2,00	1,59	1,13
latent cooling capacity	(3)	kW	0,21	0,18	0,17	0,38	0,35	0,29	0,79	0,67	0,50
Water flow rate	(3)	l/h	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	5,0	3,0	2,2	11,0	8,0	5,0	19,0	13,0	6,8
Fans											
Fan - Centrifugal		n°		1				2			
Air flow rate		m³/h	240	160	110	350	270	190	460	350	240
Sound data											
Sound power level	(4)	dB(A)	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	26	40	35	27	40	33	26
Diameter connections											
Standard coil		Ø		1/2"			1/2"			1/2"	
Electrical Features											
Absorbed power		W	12	8	6	15	10	7	18	12	8
Signal 0-10V		%	83	56	38	90	70	49	90	70	48
Power supply			230V~50Hz								

Data in accordance with Regulation EU 2016/2281

H max. speed; **M** med. speed; **L** min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

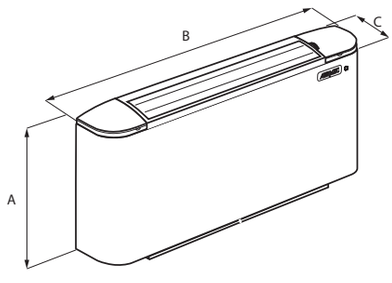
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

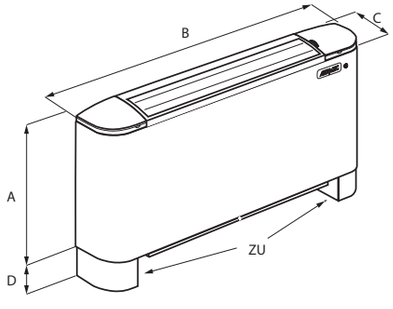
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

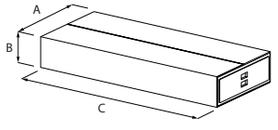
Dimensional (mm)



Wall-mount installation



Floor installation



PACKAGING design example

Omnia UL_I		16	26	36
A	mm	513	513	513
B	mm	750	980	1200
C	mm	173	173	173
D	mm	93	93	93
Weight[1]	kg	13,5	16,5	19,5
Packaging Dimensions				
A/B/C	mm	590/275/820	590/275/1050	590/275/1270

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Cod.: SOULIUY.02 / 1711

AERMEC

Omnia Radiant

Fan coils with radiant panel for residential use
Ceiling or floor mounted



Aermec
participate in the EUROVENT program:
FCU
the products are present on the site
www.eurovent-certification.com

Variable Multi Flow
VMF

INVERTER TECHNOLOGY

- **LOW TEMPERATURE RADIATION***
- **VENTILATED HEATING**
- **COOLING – DEHUMIDIFICATION**
- **ENERGY SAVING**
- **LOW OPERATING COST**

*** Radiant technology under licence**

Features

Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions
In this particular worldwide market evolution, we are pleased to present to you OMNIA Radiant, which represents the innovation of the OMNIA AERMEC series, fan coils especially designed for residential comfort.

OMNIA Radiant inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating**.**
OMNIA Radiant Plus is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

OMNIA Radiant and Radiant Plus offer the following advantages when compared to the traditional systems:

- the radiant plate combination – the finned coil allows the best winter comfort with the lower energy consumption because it provides heating with lower water temperature: only 45°C against the about 65°C needed for the traditional radiator. This not only increases the comfort for the user, but also significantly increases the overall efficiency in case of heat pumps usage;
- the fan system allows to quickly reach the desired temperature, meeting the requirement of a fast start-up;
- the unit can be combined other than the boiler, also to energy saving heat pumps: air to water, water to water and geothermic type;
- the electrostatic charge filter standard supplied, provides pure and clean air;
- during summer Omnia Radiant and Radiant Plus provide air conditioning and dehumidification in a fast and efficient way in every room.

The four different working modes of Omnia Radiant annual functioning

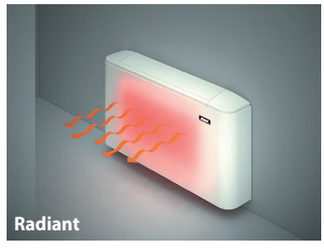
Radiant: Heating through radiation, comfortable and noiseless, is granted by the radiant plate placed on the front of the fan coil cover; if necessary, the triple-fins delivery head can be closed to increases the heating of the plate, thus maximizing the radiant effect.

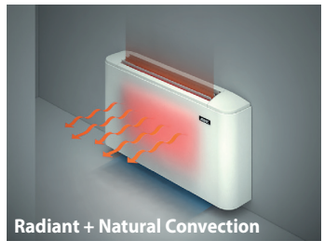
Radiant + Natural Convection
With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating.
As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

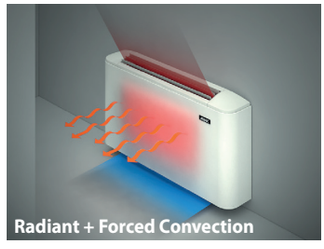
Radiant + Forced Convection
The electronic regulation, precise and reliable, continuously compares the effective indoor temperature with the desired temperature: whenever the difference between the two should prove to be too high (e.g. during the heating system start-up) the software will lead the fan system start-up. Start-up is fast and efficient and grants significant energy savings especially in rooms that are occasionally used.

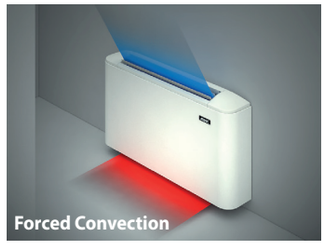
Omnia Radiant during summer provides air conditioning and dehumidification:

Forced Convection
During summer, Omnia Radiant and Radiant Plus provide air conditioning and dehumidification for each room of the house in a fast and efficient way. Efficiency and quietness benefit from the quality that has always characterized the Omnia series.



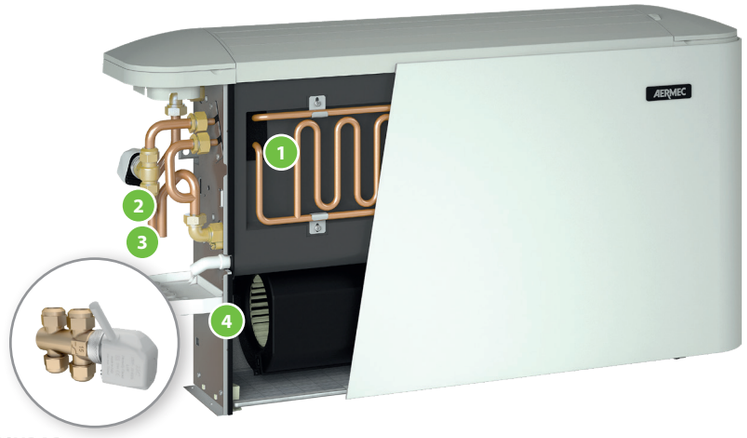






Features of the Omnia Radiant series

1. Radiant plate
2. Switching valve
3. Water probe
4. Condensate storage container, hydraulic hoses



VCHRAD accessory

- **OMNIA radiant (UL_R) standard features:**
  - Radiant panel
  - Centrifugal fans
  - Three-speed motor
  - Condensate storage container, hydraulic hoses
  - Switching valve
  - Water probe
  - Electro-statically preloaded filter
  - VMF-thermostat for asynchronous motor
  - Compatible with VMF system

- **OMNIA radiant plus (UL_RI) standard features:**
  - Radiant panel
  - Centrifugal fans
  - Electric DC Brushless motor with Inverter
  - Condensate storage container, hydraulic hoses
  - Water probe
  - Switching valve
  - Electro-statically preloaded filter
  - VMF thermostat for DC Brushless motor
  - Compatible with VMF system

  Cleaning the fan: The fan blades on the Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.
- **Electro-statically preloaded filter:** The Omnia Radiant fan coils feature standard air filters that are electro-statically preloaded. These filters, thanks to their particular construction, absorb and trap floating dust: the ideal system to provide clean air for all the family.
- **Silent operation**: Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise. **"The heating by radiation at top speed ensures total silence regime"**

Note:
The coil had hydraulic hoses on the left and is not reversible.

Accessories

- **PCU**: Rear closing panel.
- **ZU**: Wedges for floor mount.
- **GU**: Exhaust grille: covers the front space of the wedges and does not interfere with the air filter.
  Must be combined with ZU wedges.
- **VCHRAD**: Kit comprising motorized 3-way valve, unions and copper pipes.
- **VMF System**:
  Its specs are described in its technical sheet.

	Omnia radiant		Omnia Radiant plus	
	UL26R	**UL36R**	**UL26RI**	**UL36RI**
PCU	25	35	25	35
GU	25	35	25	35
VCHRAD	•	•	•	•
ZU	•	•	•	•

VMF system				
VMF-E4 (compulsory accessory)	•	•	•	•
VMF-E4D (compulsory accessory)	•	•	•	•
VMF-E5B	(1)	(1)	•	•
VMF-E5N	(1)	(1)	•	•

(1) Contact us

Technical Data

Omnia UL_R			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance								
2 pipe configuration								
Heating capacity (70°C)	(1)	kW	4,62	3,83	2,89	5,94	4,87	3,53
Heating capacity (50°C)	(2)	kW		2,75			3,54	
Water flow rate		l/h		397			511	
Pressure drop		kPa		17			21	
Static heating power (70°C)	(3)	kW		0,65			0,75	
Static heating power (50°C)	(4)	kW		0,39			0,45	
Static heating power (35°C)	(5)	kW		0,20			0,23	
Cooling Performance								
Total cooling capacity	(6)	kW	2,03	1,78	1,42	2,83	2,31	1,73
Sensible cooling capacity	(6)	kW	1,64	1,37	1,05	2,04	1,79	1,28
Water flow rate	(6)	l/h		349			487	
Pressure drops	(6)	kPa		18			22	
Water content		l		0,8			1,1	
Fans								
Fan		type/n°			centrifugal/2			
Air flow rate		m³/h	350	270	190	460	350	240
Sound data								
Sound power level	(7)	dB(A)	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	27	40	33	26
Diameter connections								
Standard coil		Ø(mm)		14			14	
Electrical Features								
Absorbed power		W		35			42	
Max. input current		A		0,18			0,22	
Electrical connections			V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz			230V~50Hz			
Energy Efficiency classification (EUROVENT)								
FCEER				D			D	
FCCOP	(8)			D			D	

Omnia UL_RI			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance								
2 pipe configuration								
Heating capacity (70°C)	(1)	kW	4,62	3,83	2,89	5,94	4,87	3,53
Heating capacity (50°C)	(2)	kW		2,75			3,54	
Water flow rate	(2)	l/h		397			511	
Pressure drop	(2)	kPa		17			21	
Static heating power (70°C)	(3)	kW		0,65			0,75	
Static heating power (50°C)	(4)	kW		0,39			0,45	
Static heating power (35°C)	(5)	kW		0,20			0,23	
Cooling Performance								
Total cooling capacity	(6)	kW	2,03	1,78	1,42	2,83	2,31	1,73
Sensible cooling capacity	(6)	kW	1,64	1,37	1,05	2,04	1,79	1,28
Water flow rate	(6)	l/h		349			487	
Pressure drops	(6)	kPa		18			22	
Water content		l		0,8			1,1	
Fans								
Fan		type/n°			centrifugal/2			
Air flow rate		m³/h	350	270	190	460	350	240
Sound data								
Sound power level	(7)	dB(A)	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	27	40	33	26
Diameter connections								
Standard coil		Ø(mm)		14			14	
Electrical Features								
Absorbed power		W		12			16	
Max. input current		A		0,18			0,22	
Signal 0-10V			9V	7V	5V	9V	7V	5V
Alimentazione		V/ph/Hz			230V~50Hz			
Energy Efficiency classification (EUROVENT)								
FCEER				D			D	
FCCOP	(8)			D			D	

H max. speed; **M** med. speed; **L** min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode (EUROVENT)

(3) Radiant power + natural convection; Hot water (in) 70°C (water flow same as in heating cycle)

(4) Room temperature 20°C b.s.; Hot water (in/*) 50°C/*°C (water flow same as in heating cycle)

(5) Radiant power + natural convection; Hot water (in/*) 35°C/*°C (water flow same as in heating cycle)

(6) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(7) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

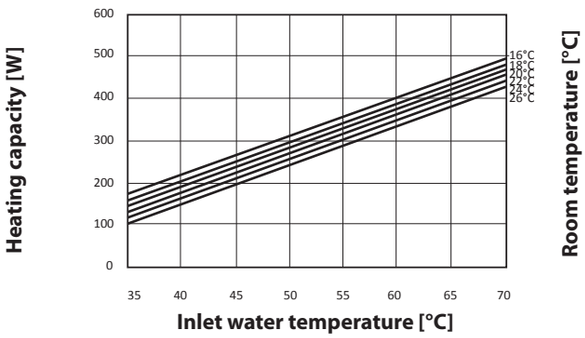
Level of sound pressure (A-weighted) measured in the room with volume V = 85m3 ; reverberation time t = 0.5s; direction factor Q = 2; distance r = 2.5m

(8) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

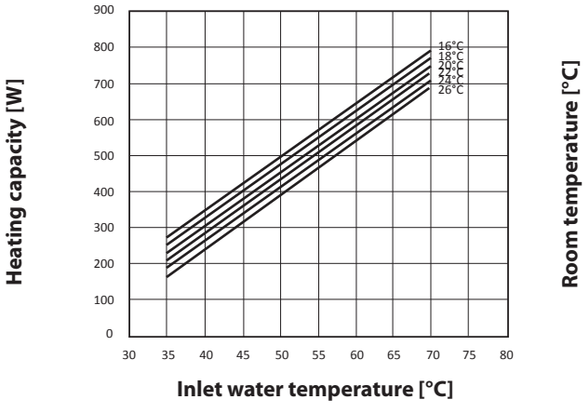
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Heating capacity with fan off

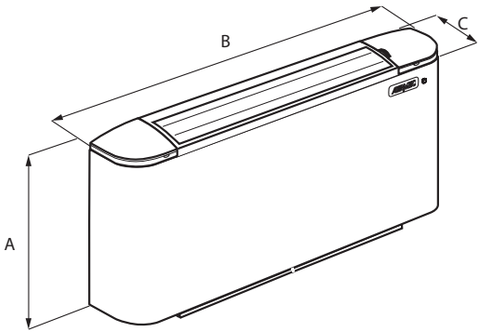
UL26R - UL26RI



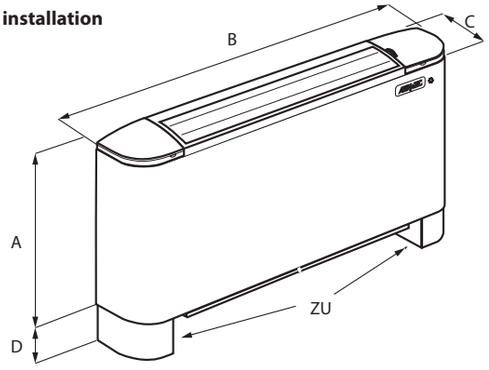
UL36R - UL36RI



Dimensions (mm)



Wall installation



Floor installation

Mod OMNIA ULR - ULRI			26	36
Height	A	(mm)	513	513
Width	B	(mm)	980	1200
Depth	C	(mm)	173	173
Height with ZU (Accessories)	D	(mm)	93	93
Weight (1)		(kg)	20	24

(1) Standard configuration of unit with accessories

Cod.: SOULR_RIUY.06 / 1701

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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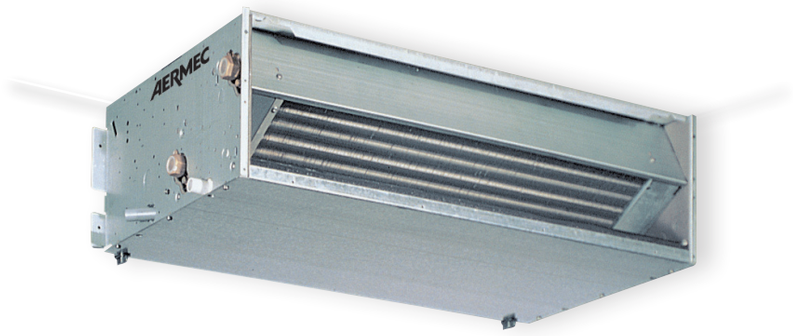
FCZ P

Fan coils
concealed installation

Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website www.eurovent-certification.com

Variable Multi Flow

VMF



- **FULLY SILENT FUNCTIONING**
- **FULL COMFORT: REDUCED TEMPERATURE AND RELATIVE HUMIDITY OSCILLATIONS**
- **IDEAL ALSO FOR DUCTED INSTALLATION**

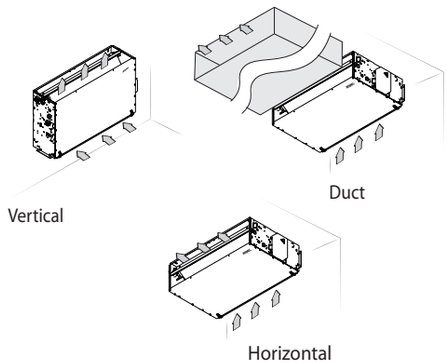
Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new series FCZ_P for duct installations.
They can be installed on any system with 2/4 pipe and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

Versions Without control in built,
Vertical or horizontal installation:
FCZ_P
FCZ_PO
FCZ_PPC

- 3-speed ventilating unit.
- Electric motors with permanently inserted condensers
- Low loss of charge in the heat exchanger
- Easy installation and maintenance
  G2 air filter for all versions. **APC versions is equipped with Plasmacluster purifier**
- Extractable shrouds for easy, effective cleaning
- Possibility to choose the hydraulic connection side through the different configurable versions, (Not reversible for secondary battery units).

Versions Description



Versions

- **FCZ_P**
  - Concealed without cabinet
- **FCZ_PPC**
  - Concealed with Plasmacluster purifier
- **FCZ_PO**
  - Concealed (ideal also for ducted installation)

Vertical or horizontal installation
- For 2/4 pipe system

Choosing the unit

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code
1,2,3	**FCZ**
4	**Size**
	1-2-3-4-5-6-7-8-9-10
5	**Maincoil**
	0 Standard
	5 Oversized (1)
6	**Supplementary coil**
	0 Without heat exchanger
	1 Standard
	2 Oversized

7,8,9	Versions
P	Concealed mounted without cabinet
PO	Concealed with oversized motor
PPC	Concealed with Plasmacluster purifier
PR	Concealed mounted without cabinet, hydraulic connections to the right
POR	Concealed with oversized motor, hydraulic connections to the right

(1) Oversized coil **"5"** does not allow the installation of the supplementary coil **"1 or 2"**

Size available for version

Versions	Size available with main coil only (2 pipes)																		
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PO	/	/	•	•	•	•	•	•	•	•	•	•	•	•	/	/	•	•	/
PPC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Versions	Size available with main and supplementary coil (4 pipes)																	
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PO	/	/	•	•	•	•	•	•	•	•	•	•	•	•	/	•	•	/
PPC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe,
  2 pipe + Plasmacluster, 2 pipe + UV lamps,
  2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil

- **BV**: Single row hot water heat exchanger. Not available for versions with Plasmacluster.

Electrical heater

- **RX**: Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Plasmacluster versions

Valve kit

- VCZ_X4: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD: Kit consisting of powered 2-way valve,** copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Accessory for Installation

- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **CHF**: The VentilCassaforma is a galvanised sheet steel template, for P versions, which allows you to obtain a space for housing the fan coil, directly in the wall.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **PA**: Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- **PA-F**: Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- **PM**: Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- **RD**: Straight flow fitting for ducting.
- **RDA**: Straight intake fitting for ducting.
- **RP**: 90° flow fitting for ducting
- **RPA**: 90° intake fitting for ducting.

DUCTING ACCESSORIES

- **MZC:** Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid

- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

Compatibility of accessories

			Size with single Heat Exchanger																		
FCZ_P			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Probes and accessories for control panels																					
KTLP	P-PO		•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•	•
PX-PX2-PX2C6	P-PO	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAR	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05-06-10	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	P-PO		In combination with FMT21																		
SW3	P-PO		In combination with PXAE or PXAR																		
SIT3	P-PO		In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	P-PPC-PO		In combination with FMT21 or PXAE or PXAR																		
VMF System																					
VMF-E0	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)																					
BV117	P-PO		•																		
BV122	P-PO				•																
BV132	P-PO						•														
BV142	P-PO								•		•										
BVZ800	P-PO												•		•		•				
BV162	P-PO																		•		•
Electrical Heat Exchanger																					
RX17	P-PO		•																		
RX22	P-PO				•																
RX32	P-PO						•														
RX42	P-PO								•												
RX52	P-PO										•										
RXZ800	P-PO												•		•		•				
RX62	P-PO																		•		•
Water valves **																					
Valve Kit for 4 pipe systems with Main coil																					
VCZ1X4L-R	P-PO		•	•	•	•															
VCZ2X4L-R	P-PO						•	•	•	•	•	•	•	•	•	•	•	•			
VCZ3X4L-R	P-PO																		•	•	•
3 way valve kit																					
VCZ41/4124	P-PPC-PO	(2)	•	•	•	•															
VCZ42/4224	P-PPC-PO	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	P-PPC-PO	(2)																	•	•	•
2 way valve kit																					
VCZD1/124	P-PPC-PO	(2)	•	•	•	•															
VCZD2/224	P-PPC-PO	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	P-PPC-PO	(2)																	•	•	•
Combined adjustment and balancing valve independent of pressure																					
VJP060	P-PPC-PO		•	•	•	•	•	•													
VJP090	P-PPC-PO								•	•	•	•	•	•							
VJP150	P-PPC-PO												•	•	•	•	•	•	•	•	•
VJP060M	P-PPC-PO	(2)	•	•	•	•	•	•													
VJP090M	P-PPC-PO	(2)							•	•	•	•	•	•							
VJP150M	P-PPC-PO	(2)											•	•	•	•	•	•	•	•	•

PO version only available for size from 2 to 9
For more details on the control panels and VMF system refer to the dedicated sheet.
* Contact Aermec
****The water valves can be combined with the unit if it is also provided a control panel that controls**
(1) **Only for wall installation;** (PX2C6 panel PX2 in multiple 6 pz.)
(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

Compatibility of accessories

			Size with single Heat Exchanger																		
FCZ_P			**100**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**600**	**650**	**700**	**750**	**800**	**850**	**900**	**950**	**1000**
Installation accessories																					
AMP20	P-PPC-PO		•	•	•	•	•	•	•	•	•	•									
AMPZ	P-PPC-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	P-PPC-PO	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ZX7	P-PPC-PO		•	•	•	•	•	•	•	•	•	•									
ZX8	P-PPC-PO												•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray																					
BC4	P-PPC-PO	(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC5	P-PPC-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC6	P-PPC-PO	(5)																	•	•	•
BC8	P-PPC-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC9	P-PPC-PO	(5)																	•	•	•
Ventilcassaforma																					
CHF17	P-PPC		•	•																	
CHF22	P-PPC-PO				•	•															
CHF32	P-PPC-PO						•	•													
CHF42	P-PPC-PO								•	•	•	•									
CHF62	P-PPC-PO												•	•	•	•	•	•	•	•	•
Grille																					
GA17	P-PPC		•	•																	
GA22	P-PPC-PO				•	•															
GA32	P-PPC-PO						•	•													
GA42	P-PPC-PO								•	•	•	•									
GA62	P-PPC-PO												•	•	•	•	•	•	•	•	•
GAF17	P-PPC		•	•																	
GAF22	P-PPC-PO				•	•															
GAF32	P-PPC-PO						•	•													
GAF42	P-PPC-PO								•	•	•	•									
GAF62	P-PPC-PO												•	•	•	•	•	•	•	•	•
GM17	P-PPC		•	•																	
GM22	P-PPC-PO				•	•															
GM32	P-PPC-PO						•	•													
GM42	P-PPC-PO								•	•	•	•									
GM62	P-PPC-PO												•	•	•	•	•	•	•	•	•
Accessories for installation																					
PA17	P-PPC		•	•																	
PA22	P-PPC-PO				•	•															
PA32	P-PPC-PO						•	•													
PA42	P-PPC-PO								•	•	•	•									
PA62	P-PPC												•	•	•	•	•	•	•	•	•
PA17F	P-PPC		•	•																	
PA22F	P-PPC-PO				•	•															
PA32F	P-PPC-PO						•	•													
PA42F	P-PPC-PO								•	•	•	•									
PA62F	P-PPC												•	•	•	•	•	•	•	•	•
PM17	P-PPC		•	•																	
PM22	P-PPC-PO				•	•															
PM32	P-PPC-PO						•	•													
PM42	P-PPC-PO								•	•	•	•									
PM62	P-PPC												•	•	•	•	•	•	•	•	•
RD17	P-PPC		•	•																	
RD22	P-PPC-PO				•	•															
RD32	P-PPC-PO						•	•													
RD42	P-PPC-PO								•	•	•	•									
RD62	P-PPC												•	•	•	•	•	•	•	•	•

(3) DSC4 It's not available with AMPZ
(4) For vertical installation. BC4 is not available whith valve VCZ-VCZD / VCF-VCFD
(5) For horizontal installation

Compatibility of accessories

			Size with single Heat Exchanger																	
FCZ_P			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
RDA17	P-PPC		•	•																	
RDA22	P-PPC-PO				•	•															
RDA32	P-PPC-PO						•	•													
RDA42	P-PPC-PO								•	•	•	•									
RDA62	P-PPC												•	•	•	•	•	•	•	•	•
RPA17	P-PPC		•	•																	
RPA22	P-PPC-PO				•	•															
RPA32	P-PPC-PO						•	•													
RPA42	P-PPC-PO								•	•	•	•									
RPA62	P-PPC												•	•	•	•	•	•	•	•	•
Plenum for duct installation																					
MZC220	PO				•	•															
MZC320	PO						•	•													
MZC530	PO								•	•	•	•									
MZC830	PO												•	•	•	•	•	•	•	•	
RDA000V	PO				•	•															
RDA100V	PO						•	•													
RDA200V	PO								•	•	•	•									
RDA300V	PO												•	•	•	•			•	•	
RPA000V	PO	(6)			•	•															
RPA100V	PO	(6)					•	•													
RPA200V	PO	(6)							•	•	•	•									
RPA300V	PO	(6)											•	•	•	•			•	•	
RDAC000V	PO				•	•															
RDAC100V	PO						•	•													
RDAC200V	PO								•	•	•	•									
RDAC300V	PO												•	•	•	•			•	•	
PA000V	PO	(6)			•	•															
PA100V	PO	(6)					•	•													
PA200V	PO	(6)							•	•	•	•									
PA300V	PO	(6)											•	•	•	•			•	•	
PM000V	PO	(6)			•	•															
PM100V	PO	(6)					•	•													
PM200V	PO	(6)							•	•	•	•									
PM300V	PO	(6)											•	•	•	•			•	•	
RPM000V	PO	(6)			•	•															
RPM100V	PO	(6)					•	•													
RPM200V	PO	(6)							•	•	•	•									
RPM300V	PO	(6)											•	•	•	•			•	•	
RDMC000V	PO				•	•															
RDMC100V	PO						•	•													
RDMC200V	PO								•	•	•	•									
RDMC300V	PO												•	•	•	•			•	•	

PO version only available for size from 2 to 9

(6) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

Compatibility of accessories

			Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P			**101**	**102**	**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**601**	**602**	**701**	**702**	**801**	**802**	**901**	**1001**
Probes and accessories for control panels																				
KTLP	P-PO		•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•
PXAE	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT06-10	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	P-PO		In combination with FMT21																	
SW3	P-PO		In combination with PXAE																	
SIT3	P-PO		In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																	
SIT5	P-PO		In combination with FMT21 or PXAE or PXAR																	
VMF System																				
VMF-E0	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valve**																				
3 way valve kit																				
VCZ41/4124	P-PO	(2)	•	•	•	•														
VCZ42/4224	P-PO	(2)					•	•	•	•	•	•	•	•	•	•	•	•		
VCZ43/4324	P-PO	(2)																	•	•
2 way valve kit																				
VCZD1/124	P-PO	(2)	•	•	•	•														
VCZD2/224	P-PO	(2)					•	•	•	•	•	•	•	•	•	•	•	•		
VCZD3/324	P-PO	(2)																	•	•
3 way valve kit for heating coil only																				
VCF44/4424	P-PO	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
VCF45/4524	P-PO	(2)																	•	•
2 way valve kit for heating coil only																				
VCFD4/424	P-PO	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure																				
VJP060	P-PO		•	•	•	•	•	•												
VJP090	P-PO								•	•	•	•	•	•						
VJP150	P-PO												•	•	•	•	•	•	•	•
VJP060M	P-PO	(2)	•	•	•	•	•	•												
VJP090M	P-PO	(2)							•	•	•	•	•	•						
VJP150M	P-PO	(2)											•	•	•	•	•	•	•	•
Accessories for installation																				
AMP20	P-PO		•	•	•	•	•	•	•	•	•	•								
AMPZ	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	P-PO	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ZX7	P-PO		•	•	•	•	•	•	•	•	•	•								
ZX8	P-PO												•	•	•	•	•	•	•	•
Auxiliary condensate drip tray																				
BC4	P	(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC5	P	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC6	P	(5)																	•	•
BC8	P-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC9	P-PO	(5)																	•	•
Ventilcassaforma																				
CHF17	P		•	•																
CHF22	P				•	•														
CHF32	P						•	•												
CHF42	P								•	•	•	•								
CHF62	P												•	•	•	•	•	•	•	•

PO version only available for size from 2 to 9

* Contact Aermec

****The water valves can be combined with the unit if it is also provided a control panel that controls**

VJP / VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VCZ4424-VCF4524-VCFD424 are 24V

(3)DSC4 It's not available with AMPZ

(4) For vertical installation

(5) For horizontal installation

Compatibility of accessories

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
Grille																			
GA17	P	•	•																
GA22	P-PO			•	•														
GA32	P-PO					•	•												
GA42	P-PO							•	•	•	•								
GA62	P-PO											•	•	•	•	•	•	•	•
GAF17	P	•	•																
GAF22	P-PO			•	•														
GAF32	P-PO					•	•												
GAF42	P-PO							•	•	•	•								
GAF62	P-PO											•	•	•	•	•	•	•	•
GMF17	P	•	•																
GMF22	P-PO			•	•														
GMF32	P-PO					•	•												
GMF42	P-PO							•	•	•	•								
GMF62	P-PO											•	•	•	•	•	•	•	•
Accessories for installation																			
PA17	P	•	•																
PA22	P-PO			•	•														
PA32	P-PO					•	•												
PA42	P-PO							•	•	•	•								
PA62	P-PO											•	•	•	•	•	•	•	•
PA17F	P	•	•																
PA22F	P-PO			•	•														
PA32F	P-PO					•	•												
PA42F	P-PO							•	•	•	•								
PA62F	P-PO											•	•	•	•	•	•	•	•
PM17	P	•	•																
PM22	P-PO			•	•														
PM32	P-PO					•	•												
PM42	P-PO							•	•	•	•								
PM62	P-PO											•	•	•	•	•	•	•	•
RD17	P	•	•																
RD22	P-PO			•	•														
RD32	P-PO					•	•												
RD42	P-PO							•	•	•	•								
RD62	P-PO											•	•	•	•	•	•	•	•
RDA17	P	•	•																
RDA22	P-PO			•	•														
RDA32	P-PO					•	•												
RDA42	P-PO							•	•	•	•								
RDA62	P-PO											•	•	•	•	•	•	•	•
RPA17	P	•	•																
RPA22	P-PO			•	•														
RPA32	P-PO					•	•												
RPA42	P-PO							•	•	•	•								
RPA62	P-PO											•	•	•	•	•	•	•	•
Plenum for duct installation																			
MZC220	PO			•	•														
MZC320	PO					•	•												
MZC530	PO							•	•	•	•								
MZC830	PO											•	•	•	•	•	•	•	

Compatibility of accessories

			Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P			101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
RDA000V	PO				•	•														
RDA100V	PO						•	•												
RDA200V	PO								•	•	•	•								
RDA300V	PO												•	•	•	•			•	
RPA000V	PO	(6)			•	•														
RPA100V	PO	(6)					•	•												
RPA200V	PO	(6)							•	•	•	•								
RPA300V	PO	(6)											•	•	•	•			•	
RDAC000V	PO				•	•														
RDAC100V	PO						•	•												
RDAC200V	PO								•	•	•	•								
RDAC300V	PO												•	•	•	•			•	
PA000V	PO	(6)			•	•														
PA100V	PO	(6)					•	•												
PA200V	PO	(6)							•	•	•	•								
PA300V	PO	(6)											•	•	•	•			•	
PM000V	PO	(6)			•	•														
PM100V	PO	(6)					•	•												
PM200V	PO	(6)							•	•	•	•								
PM300V	PO	(6)											•	•	•	•			•	
RPM000V	PO	(6)			•	•														
RPM100V	PO	(6)					•	•												
RPM200V	PO	(6)							•	•	•	•								
RPM300V	PO	(6)											•	•	•	•			•	
RDMC000V	PO				•	•														
RDMC100V	PO						•	•												
RDMC200V	PO								•	•	•	•								
RDMC300V	PO												•	•	•	•			•	

PO version only available for size from 2 to 9

(6) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

Technical data (EUROVENT FC2H) Unit for 2 pipe systems (main coil)

FCZ_P			100			150			200			250			300			350			400			450			500			550		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																																
2 pipe systems																																
Heating capacity (70°C)	(1)	kW	2,40	2,00	1,45	2,65	2,19	1,55	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57	8,50	7,31	5,27	9,75	8,34	5,82
Water flow rate	(1)	l/h	206	172	125	232	192	136	324	258	177	355	278	193	482	391	304	539	431	330	627	503	379	685	551	400	745	641	462	855	731	510
Pressure drop	(1)	kPa	9,0	7,0	4,0	12,0	9,0	5,0	18,0	12,0	6,0	23,0	15,0	7,0	18,0	12,0	7,0	20,0	14,0	8,0	24,0	16,0	9,0	16,0	11,0	6,0	28,0	21,0	12,0	26,0	20,0	10,0
Heating capacity (45°C)	(2)	kW	1,19	0,99	0,72	1,31	1,09	0,77	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27	4,22	3,63	2,62	4,85	4,14	2,89
Water flow rate	(2)	l/h	207	173	126	229	189	134	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394	734	631	455	842	720	502
Pressure drop	(2)	kPa	9,5	7,0	4,0	12,5	9,0	5,0	17,5	12,0	6,0	22,0	15,0	8,0	17,5	12,0	8,0	20,5	14,0	8,5	23,5	16,0	9,5	16,0	11,0	6,0	28,0	21,0	12,0	25,5	19,5	10,0
Cooling Performance																																
Total cooling capacity	(3)	kW	1,00	0,84	0,65	1,27	1,06	0,80	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,20	4,03	3,21	2,41	4,25	3,69	2,68	4,79	4,13	2,91
Sensible cooling capacity	(3)	kW	0,83	0,69	0,51	0,97	0,80	0,57	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69	3,18	2,73	1,94	3,49	2,98	2,07
Cooling capacity (latent)	(3)	kW	0,17	0,15	0,14	0,30	0,26	0,23	0,27	0,23	0,18	0,42	0,35	0,27	0,61	0,52	0,42	0,84	0,70	0,56	0,93	0,78	0,61	1,13	0,91	0,72	1,07	0,96	0,74	1,30	1,15	0,84
Water flow rate	(3)	l/h	172	144	112	219	182	138	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414	731	634	460	824	711	501
Pressure drop	(3)	kPa	8,0	6,0	4,0	13,0	12,0	6,0	18,0	12,5	6,5	25,0	17,0	8,5	18,0	13,0	8,0	25,0	17,5	11,0	24,0	16,5	10,0	22,0	15,0	9,0	29,0	22,5	13,0	28,0	21,5	11,5
Fans																																
Centrifugal Fans		n°	1						1						2						2						2					
Air flow rate		m³/h	200	160	110	200	160	110	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	720	600	400	720	600	400
Sound level																																
Sound power level	(4)	dB(A)	45	38	31	45	38	31	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37	56	51	42	56	51	42
Sound pressure level		dB(A)	37	30	23	37	30	23	43	38	27	43	38	27	40	33	26	40	33	26	43	36	29	43	36	29	48	43	34	48	43	34
Hydraulic connections																																
Main coil																																
Standard		Ø	1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"		
Electrical data																																
Absorbed power		W	35	29	19	35	29	19	33	29	25	33	29	25	44	33	25	44	33	25	57	43	30	57	43	30	76	52	38	76	52	38
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz																													

FCZ			600			650			700			750			800			850			900			950			1000		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																													
2 pipe systems																													
Heating capacity (70°C)	(1)	kW	10,00	8,10	6,50	11,50	9,15	7,19	11,00	9,80	8,10	12,50	11,30	9,10	12,00	10,80	9,80	14,00	12,35	11,30	15,14	13,35	10,77	17,10	14,42	11,20	17,02	15,24	12,56
Water flow rate	(1)	l/h	877	710	570	1008	802	631	964	860	710	1096	991	798	1052	947	859	1227	1083	991	1328	1171	945	1500	1264	982	1493	1337	1101
Pressure drop	(1)	kPa	26,0	17,8	12,0	31,0	21,0	13,5	29,1	23,6	16,8	18,0	15,0	10,0	32,2	26,6	22,4	25,0	20,0	17,0	22,0	17,4	12,0	33,0	24,5	15,5	38,5	31,5	22,0
Heating capacity (45°C)	(2)	kW	4,97	4,03	3.32	5,72	4,55	3.57	5,47	4,87	4,03	6,21	5,62	4,52	5,97	5,37	4,87	6,96	6,14	5,62	7,53	6,64	5,35	8,50	7,17	5,57	8,46	7,58	6,24
Water flow rate	(2)	l/h	863	699	561	993	790	621	950	846	699	1079	975	786	1036	932	846	1209	1066	975	1307	1152	930	1476	1245	967	1469	1316	1084
Pressure drop	(2)	kPa	25,5	17,5	12,0	31,0	20,5	13,5	29,0	23,5	16,5	17,5	14,5	10,0	32,0	26,0	22,0	25,0	19,5	17,0	21,5	17,0	12,0	33,0	24,0	15,0	37,5	31,0	22,0
Cooling Performance																													
Total cooling capacity	(3)	kW	4,65	3,90	3,22	5,67	4,80	3,95	5,50	4,89	3,92	6,14	5,34	4,27	6,10	5,66	4,84	6,91	6,29	5,26	6,91	5,00	4,29	8,60	7,32	5,77	7,62	6,88	5,69
Sensible cooling capacity	(3)	kW	3,92	3,17	2,56	4,12	3,43	2,78	4,30	3,76	2,99	4,72	4,05	3,20	4,83	4,42	3,72	5,36	4,83	4,00	5,68	3,78	2,97	5,78	4,87	3,80	5,53	5,34	4,42
Cooling capacity (latent)	(3)	kW	0,73	0,73	0,66	1,55	1,37	1,17	1,20	1,13	0,93	1,42	1,29	1,07	1,27	1,24	1,12	1,55	1,46	1,26	1,23	1,22	1,32	2,82	2,45	1,97	2,09	1,54	1,27
Water flow rate	(3)	l/h	800	671	554	975	825	595	946	841	675	1056	918	734	1049	974	833	1189	1082	904	1189	860	738	1479	1259	992	1311	1183	979
Pressure drop	(3)	kPa	26,0	19,0	13,5	28,0	21,0	15,0	30,0	24,5	16,5	18,5	14,5	10,0	30,0	26,5	20,0	23,0	19,5	14,0	22,0	12,5	9,5	30,0	22,5	15,0	35,5	31,0	22,0
Fans																													
Centrifugal Fans		n°	3						3						3						3						3		
Air flow rate		m³/h	920	720	520	920	720	520	1140	930	700	1140	930	700	1300	1120	900	1300	1120	900	1140	930	700	1140	930	700	1300	1120	900
Sound level																													
Sound power level	(4)	dB(A)	57	51	42	57	51	42	62	57	50	62	57	50	66	61	56	66	61	56	62	57	51	61	57	51	66	61	56
Sound pressure level		dB(A)	49	43	34	49	43	34	54	49	42	54	49	42	58	53	48	58	53	48	54	49	43	53	49	43	58	53	48
Hydraulic connections																													
Main coil																													
Standard		Ø	3/4"			/			3/4"			/			3/4"			/			3/4"			/			3/4"		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"			/			3/4"			/		
Electrical data																													
Absorbed power		W	91	60	38	91	60	38	106	80	59	106	80	59	131	100	80	131	100	80	106	80	59	106	80	59	131	100	80
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz																										

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data (EUROVENT FC4H) - Unit for 4 pipe systems (with main + supplementary coil)

FCZ			101			201			301			401		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
4 pipe systems														
Heating capacity (65°C)	(1)	kW	1,17	1,02	0,75	1,61	1,36	1,02	2,56	2,19	1,81	3,13	2,65	2,13
Water flow rate	(1)	l/h	101	88	65	138	117	88	221	188	155	269	228	183
Pressure drop	(1)	kPa	4	3	2	10	7	5	29	22	15	8	7	4
Cooling Performance														
Total cooling capacity	(2)	kW	1,00	0,84	0,65	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20
Sensible cooling capacity	(2)	kW	0,83	0,69	0,51	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59
Cooling capacity (latent)	(2)	kW	0,17	0,15	0,14	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61
Water flow rate	(2)	l/h	172	144	112	275	221	153	456	374	289	619	503	379
Pressure drop	(2)	kPa	7,0	5,0	4,0	18,0	12,5	6,5	18,0	13,0	8,0	34,0	23,5	14,0
Fans														
Centrifugal fans		n°		1			1			2			2	
Air flow rate		m³/h	200	160	110	290	220	140	450	350	260	600	460	330
Sound level														
Sound power level	(3)	dB(A)	45	38	31	51	46	35	48	41	34	51	44	37
Sound pressure level		dB(A)	37	30	23	43	38	27	40	33	26	43	36	29
Hydraulic connections														
Main coil		Ø		1/2"			1/2"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"			1/2"	
Electrical data														
Absorbed power		W	35	29	19	33	29	25	44	33	25	57	43	30
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply								230V~50Hz						

FCZ			501			601			701			801			901			1001		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
4 pipe systems																				
Heating capacity (65°C)	(1)	kW	3,73	3,34	2,59	4,36	3,67	2,53	4,95	4,29	3,66	5,34	4,79	4,21	5,73	5,63	4,74	6,09	5,57	4,85
Water flow rate	(1)	l/h	327	293	227	375	316	217	426	369	315	459	412	362	493	484	407	523	479	417
Pressure drop	(1)	kPa	10,5	8,5	5,5	16	11	7	20	16	15	23	19	12	12	11	9	15	13	10
Cooling Performance																				
Total cooling capacity	(2)	kW	4,25	3,69	2,68	4,25	3,69	2,68	4,25	3,69	2,68	4,25	3,69	2,68	4,25	3,69	2,68	4,25	3,69	2,68
Sensible cooling capacity	(2)	kW	3,18	2,73	1,94	3,18	2,73	1,94	3,18	2,73	1,94	3,18	2,73	1,94	3,18	2,73	1,94	3,18	2,73	1,94
Cooling capacity (latent)	(2)	kW	1,07	0,96	0,74	1,07	0,96	0,74	1,07	0,96	0,74	1,07	0,96	0,74	1,07	0,96	0,74	1,07	0,96	0,74
Water flow rate	(2)	l/h	731	635	461	731	635	461	731	635	461	731	635	461	731	635	461	731	635	461
Pressure drop	(2)	kPa	29,0	22,5	13,0	29,0	22,5	13,0	29,0	22,5	13,0	29,0	22,5	13,0	29,0	22,5	13,0	29,0	22,5	13,0
Fans																				
Centrifugal fans		n°		2			3			3			3			3			3	
Air flow rate		m³/h	720	600	400	920	720	520	1140	930	700	1300	1120	900	1140	930	700	1300	1120	900
Sound level																				
Sound power level	(3)	dB(A)	56	51	42	57	51	42	61	57	51	66	61	56	61	57	51	66	61	56
Sound pressure level		dB(A)	48	43	34	49	43	34	53	49	43	58	53	48	53	49	43	58	53	48
Hydraulic connections																				
Main coil		Ø		3/4"			3/4"			3/4"			3/4"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"			1/2"			1/2"			1/2"	
Electrical data																				
Absorbed power		W	76	52	38	91	60	38	106	80	59	131	100	80	106	80	59	131	100	80
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply											230V~50Hz									

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoor with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data (EUROVENT FCP2H) Unit for 2 pipe systems (main coil)

FCZ_PO			200			250			300			350			400			450			500			550		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance																										
2 pipe systems																										
Heating capacity (70°C)	(1)	kW	3,32	3,00	2,11	3,60	3,24	2,29	5,45	5,03	3,50	6,10	5,59	3,80	6,74	6,02	4,49	7,40	6,62	4,79	7,59	7,22	5,27	8,67	8,25	5,81
Water flow rate	(1)	l/h	285	258	182	310	279	197	469	433	301	524	481	327	580	517	386	637	569	412	652	621	453	746	709	500
Pressure drop	(1)	kPa	15,0	12,0	7,0	19,0	16,0	9,0	18,0	15,0	8,0	21,0	18,0	9,0	22,0	18,0	11,0	15,0	12,0	7,0	23,0	21,0	12,0	21,0	19,0	10,0
Heating capacity (45°C)	(2)	kW	1,65	1,49	1,05	1,79	1,61	1,14	2,71	2,50	1,74	3,03	2,78	1,89	3,35	2,99	2,23	3,68	3,29	2,38	3,77	3,59	2,62	4,31	4,10	2,89
Water flow rate	(2)	l/h	248	224	160	308	277	196	466	430	299	521	478	325	576	514	383	633	566	409	648	617	451	741	705	497
Pressure drop	(2)	kPa	14,5	12,0	6,5	18,5	15,5	8,5	17,5	15,0	8,0	20,0	17,0	9,0	21,5	17,5	10,5	15,0	12,0	7,0	22,5	20,5	12,0	21,0	19,0	10,0
Cooling Performance																										
Total cooling capacity	(3)	kW	1,44	1,30	0,93	1,74	1,59	1,11	2,63	2,40	1,70	3,00	2,77	1,91	3,41	3,06	2,29	3,79	3,37	2,51	3,82	3,65	2,68	4,28	4,08	2,91
Sensible cooling capacity	(3)	kW	1,18	1,14	0,74	1,36	1,23	0,83	2,03	1,86	1,27	2,16	1,99	1,34	2,52	2,24	1,66	2,73	2,42	1,76	2,83	2,70	1,94	3,09	2,94	2,07
Cooling capacity (latent)	(3)	kW	0,26	0,16	0,19	0,38	0,36	0,28	0,60	0,54	0,43	0,84	0,78	0,57	0,89	0,82	0,63	1,06	0,95	0,75	0,99	0,95	0,74	1,19	1,14	0,84
Water flow rate	(3)	l/h	248	224	160	299	273	191	452	413	292	516	476	328	586	526	394	652	580	432	657	628	461	736	702	500
Pressure drop	(3)	kPa	15,0	13,0	8,0	21,0	17,5	9,5	18,0	16,0	8,5	25,0	21,0	11,0	22,0	18,0	11,0	20,0	16,0	11,0	24,0	22,0	13,0	23,0	21,0	12,0
Fans																										
Centrifugal Fans		n°	1						2						2						2					
Air flow rate		m³/h	254	226	148	254	226	148	446	404	263	446	404	263	559	487	346	559	487	346	627	592	400	627	592	400
High static pressure		Pa	63	50	21	63	50	21	61	50	21	61	50	21	66	50	25	66	50	25	56	50	22	56	50	22
Sound level																										
Sound Power (Inlet+Radietor)	(4)	dB(A)	59	56	41	59	56	41	54	51	39	54	51	39	55	54	44	55	54	44	57	55	45	57	55	45
Sound Power (Outlet)		dB(A)	55	52	37	55	52	37	49	47	35	49	47	35	52	50	40	52	50	40	53	51	41	53	51	41
Hydraulic connections																										
Main coil																										
Standard		Ø	1/2"			/			3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			3/4"			/			3/4"			/			3/4"		
Electrical data																										
Absorbed power		W	74	41	28	74	41	28	78	55	38	78	55	38	102	63	53	102	63	53	96	80	49	96	80	49
Connected for speeds			V6	V4	V2	V6	V4	V2	V6	V4	V1	V6	V4	V1	V6	V3	V1	V6	V3	V1	V6	V5	V1	V6	V5	V1
Power supply			230V~50Hz																							

FCZ_PO			600			650			700			750			900			950		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	10,00	8,55	6,86	11,51	9,72	7,63	10,52	10,10	8,77	12,09	11,65	10,02	14,45	13,80	11,81	16,00	15,07	12,43
Water flow rate	(1)	l/h	860	735	590	990	836	656	905	868	754	1040	1002	862	1242	1187	1016	1375	1296	1069
Pressure drop	(1)	kPa	26,0	20,0	13,0	31,0	23,0	15,0	27,0	25,0	19,0	16,0	15,0	12,0	20,0	18,0	14,0	29,0	26,0	19,0
Heating capacity (45°C)	(2)	kW	4,97	4,25	3,41	5,72	4,83	3,79	5,23	5,02	4,36	6,01	5,79	4,98	7,18	6,86	5,87	7,95	7,49	6,18
Water flow rate	(2)	l/h	855	731	586	984	831	652	899	863	750	1034	996	856	1235	1180	1009	1367	1288	1063
Pressure drop	(2)	kPa	25,0	19,0	13,0	31,0	22,6	14,5	26,5	24,5	19,0	16,3	15,3	12,0	19,8	18,2	14,0	29,0	26,0	18,5
Cooling Performance																				
Total cooling capacity	(3)	kW	4,65	4,08	3,37	5,67	5,02	4,15	5,18	4,97	4,24	5,80	5,53	4,69	5,95	5,33	4,38	8,07	7,62	6,35
Sensible cooling capacity	(3)	kW	3,92	3,34	2,70	4,12	3,60	2,93	4,02	3,83	3,24	4,41	4,20	3,53	4,73	4,11	3,11	5,40	5,08	4,20
Cooling capacity (latent)	(3)	kW	0,73	0,74	0,67	1,55	1,42	1,22	1,16	1,14	1,00	1,39	1,33	1,16	1,22	1,22	1,27	2,67	2,54	2,15
Water flow rate	(3)	l/h	800	702	580	975	863	714	891	855	729	997	951	807	1023	917	753	1388	1310	1092
Pressure drop	(3)	kPa	26,0	21,0	15,0	28,0	22,5	16,0	28,0	26,0	19,5	17,0	15,5	11,5	17,0	14,0	10,0	27,0	24,0	17,5
Fans																				
Centrifugal Fans		n°	3						3						3					
Air flow rate		m³/h	920	770	567	920	770	567	1050	978	785	1050	978	785	1050	978	785	1050	978	785
High static pressure		Pa	71	50	27	71	50	27	58	50	32	58	50	32	58	50	32	58	50	32
Sound level																				
Sound Power (Inlet+Radietor)	(4)	dB(A)	61	56	46	61	56	46	62	60	54	62	60	54	62	60	54	62	60	54
Sound Power (Outlet)		dB(A)	60	54	44	60	54	44	61	59	52	61	59	52	61	59	52	61	59	52
Hydraulic connections																				
Main coil																				
Standard		Ø	3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	118	89	66	118	89	66	138	117	92	138	117	92	138	117	92	138	117	92
Connected for speeds			V7	V4	V1	V7	V4	V1	V7	V5	V2	V7	V5	V2	V7	V5	V2	V7	V5	V2
Power supply			230V~50Hz																	

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data (EUROVENT FCP4H) Unit for 4 pipe systems (with main + supplementary coil)

FCZ_PO			201			301			401		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	1,48	1,37	1,06	2,55	2,39	1,82	2,99	2,75	2,19
Water flow rate	(1)	l/h	130	120	93	223	210	159	262	240	192
Pressure drop	(1)	kPa	9,0	8,0	5,0	13,5	12,0	8,0	8,0	7,0	5,0
Cooling Performance											
Total cooling capacity	(2)	kW	1,44	1,31	0,93	2,63	2,44	1,70	3,41	3,06	2,29
Sensible cooling capacity	(2)	kW	1,18	1,07	0,74	2,03	1,86	1,27	2,52	2,24	1,66
Cooling capacity (latent)	(2)	kW	0,26	0,24	0,19	0,60	0,58	0,43	0,89	0,82	0,63
Water flow rate	(2)	l/h	248	224	160	452	413	292	586	526	394
Pressure drop	(2)	kPa	15,0	13,0	7,0	18,0	16,0	8,5	22,0	18,0	11,0
Fans											
Centrifugal Fans		n°		1			2			2	
Air flow rate		m³/h	254	226	148	446	404	263	559	487	346
High static pressure		Pa	63	50	21	61	50	21	66	50	25
Sound level											
Sound Power (Inlet+Radietor)	(3)	dB(A)	59	56	41	54	51	39	55	54	44
Sound Power (Outlet)		dB(A)	55	52	37	49	47	35	52	50	40
Hydraulic connections											
Main coil		Ø		1/2"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	74	41	28	78	55	38	102	63	53
Connected for speeds			V6	V4	V2	V6	V4	V1	V6	V3	V1
Power supply		V/ph/Hz	230V~50Hz								

FCZ_PO			501			601			701			901		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance														
4 pipe systems														
Heating capacity (65°C)	(1)	kW	3,34	3,30	2,59	4,35	3,85	3,13	4,60	4,40	4,13	5,77	5,71	5,16
Water flow rate	(1)	l/h	301	290	226	381	336	274	403	385	361	504	500	452
Pressure drop	(1)	kPa	9,0	8,5	5,5	16,0	13,0	9,0	16,5	15,0	15,5	12,1	12,1	10,0
Cooling Performance														
Total cooling capacity	(2)	kW	3,82	3,65	2,68	4,65	4,08	3,37	5,18	4,97	4,24	5,95	5,33	4,38
Sensible cooling capacity	(2)	kW	2,83	2,70	1,94	3,92	3,34	2,70	4,02	3,83	3,24	4,73	4,11	3,11
Cooling capacity (latent)	(2)	kW	0,99	0,95	0,74	0,73	0,74	0,67	1,16	1,14	1,00	1,22	1,22	1,27
Water flow rate	(2)	l/h	657	628	461	800	702	580	891	855	729	1023	917	753
Pressure drop	(2)	kPa	24,0	22,0	13,0	26,0	21,0	15,0	28,0	26,0	19,5	17,0	14,6	10,0
Fans														
Centrifugal Fans		n°		2			3			3			3	
Air flow rate		m³/h	627	592	400	920	770	567	1050	978	785	1050	978	785
High static pressure		Pa	56	50	22	71	50	27	58	50	32	58	50	32
Sound level														
Sound Power (Inlet+Radietor)	(3)	dB(A)	57	55	45	61	56	46	62	60	54	62	60	54
Sound Power (Outlet)		dB(A)	53	51	41	60	54	44	61	59	52	61	59	52
Hydraulic connections														
Main coil		Ø		3/4"			3/4"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"			1/2"	
Electrical data														
Absorbed power		W	96	80	50	118	89	66	138	117	93	138	117	92
Connected for speeds			V6	V5	V1	V7	V4	V1	V7	V5	V2	V7	V5	V2
Power supply		V/ph/Hz	230V~50Hz											

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

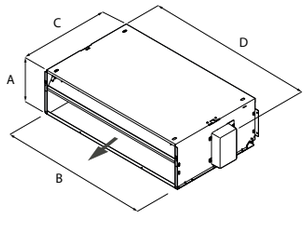
(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoor with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions and Weights

FCZ_P / PO / PPC		100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Dimensions for all versions																					
A	mm	216				216				216				216				216			
B	mm	412				522				753				973				973			
C	mm	453				453				453				453				453			
D*	mm	452				562				793				1013				1013			
Weight	kg	12	12	13	13	12	13	14	14	14	15	16	16	20	21	22	22	23	23	24	24

FCZ_P / PO / PPC		600	601	602	650	700	701	702	750	800	801	802	850	900	901	/	950	1000	1001	/	/
Dimensions for all versions																					
A	mm	216				216				216				216				216			
B	mm	1122				1122				1122				1122				1122			
C	mm	453				453				453				558				558			
D*	mm	1147				1147				1147				1147				1147			
Weight	kg	29	30	31	31	26	27	28	28	26	27	28	28	32				32			



* maximum dimensions

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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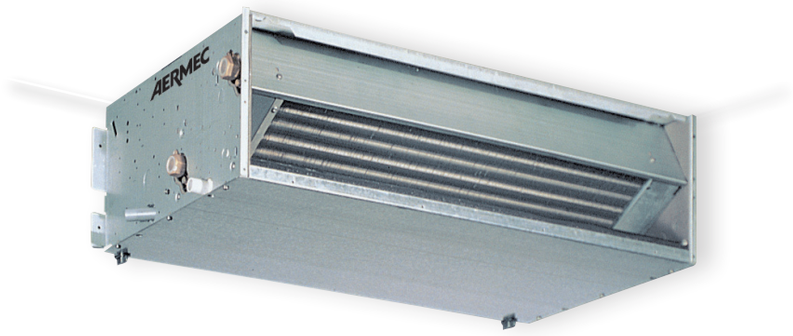
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FCZI P

Fan coils with Inverter Brushless motor (EC)
Concealed installation

Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website www.eurovent-certification.com

VMF



- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3–SPEED MOTOR**
- **FULLY SILENT FUNCTIONING**
- **FULL COMFORT: REDUCED TEMPERATURE AND RELATIVE HUMIDITY OSCILLATIONS**

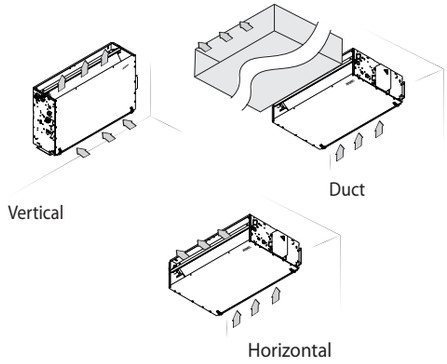
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Drawing from its wide experience in the field of fan coils, Aermec presents the new series FCZI_P for duct installations.
The inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems. This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors). In term of noise, in any operating condition exceptional values have been observed.
They can be installed on any system with 2/4 pipe and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

Versions without control in built,
Vertical or horizontal installation:
FCZI_P

- Brushless motor with 0-100% speed continuous variation to guarantee best performance at very low sound level
- Low loss of charge in the heat exchanger
- Easy installation and maintenance
- Air felter **G2** for all versions.
- Extractable shrouds for easy, effective cleaning
- Possibility to choose the hydraulic connection side through the different configurable versions (Not reversible for secondary battery units).

Versions Description



Versions

- **FCZI_P**
  - wall/ceiling mounted without cabinet

Vertical or horizontal installation
- For 2/4 pipe system

* In the standard configuration it is not static pressure available.
Should it be necessary for ducted installations, we must act on the dip switch on the motor. For further concerning refer to the technical documentation.

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Code
1,2,3	**FCZI**
4	**Size**
	2-3-4-5-7-9
5	**Maincoil**
0	Standard
5	Oversized (1)
6	**Supplementary coil**
0	Without heat exchanger
1	Standard
2	Oversized
7,8	**Versions**
P	Wall/ceiling mounted without cabinet
PR	Wall/ceiling mounted without cabinet and hydraulic connections to the left

(1) With increase coil **"5"** no coil can be fit with heat only **"1 or 2"**

Size available for version

Version	Size available with main coil only (2 pipes)											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
P	•	•	•	•	•	•	•	•	•	•	•	•

Version	Size available with main and supplementary coil (4 pipes)										
FCZI	201	202	301	302	401	402	501	502	701	702	901
P	•	•	•	•	•	•	•	•	•	•	•

Accessories

Control panel
A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels
- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m.

VMF system
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18**: Thermostat for serial communication
- **VMF-SW**: water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Coil - Hot water
- **BV**: Single row hot water heat exchanger

Kit water valve
- **VCZ_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection
- **VCZ or VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD**: **Kit consisting of powered 2-way valve**, copper Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Installation accessoires
- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **CHF**: The VentilCassaforma is a galvanised sheet steel template, for P versions, which allows you to obtain a space for housing the fan coil, directly in the wall.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.

Grid
- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

Plenum and accessoires for ducting
- **MZC:** Plenum with motor-driven dampers
- **PA**: Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- **PA-F**: Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- **PM**: Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- **RD**: Straight flow fitting for ducting.
- **RDA**: Straight intake fitting for ducting.
- **RP**: 90° flow fitting for ducting
- **RPA**: 90° intake fitting for ducting.

Refer to dedicated product Leaflet for further details concerning control panel and VMF System

Compatibility of accessories

		Single coil models											
FCZI		**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**700**	**750**	**900**	**950**
Probes and accessories for control panels													
WMT21		•	•	•	•	•	•	•	•	•	•	•	•
SWAI		In combination with WMT21											
VMF System													
VMF-E18		•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)													
BV122		•											
BV132				•									
BV142						•		•					
BVZ800										•			
BV162												•	
Water valves*													
Valve Kit for 4 pipe systems with Main coil													
VCZ1X4L-R		•	•										
VCZ2X4L-R				•	•	•	•	•	•	•	•		
VCZ3X4L-R												•	•
3 way valve kit													
VCZ41/4124	(1)	•	•										
VCZ42/4224	(1)			•	•	•	•	•	•	•	•		
VCZ43/4324	(1)											•	•
2 way valve kit													
VCZD1/124	(1)	•	•										
VCZD2/224	(1)			•	•	•	•	•	•	•	•		
VCZD3/324	(1)			•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure**													
VJP060		•	•	•	•								
VJP090						•	•	•	•				
VJP150										•	•	•	•
VJP060M	(1)	•	•	•	•								
VJP090M	(1)					•	•	•	•				
VJP150M	(1)									•	•	•	•
Installation accessories													
AMP20		•	•	•	•	•	•	•	•				
AMPZ		•	•	•	•	•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray													
BC4	(3)	•	•	•	•	•	•	•	•	•	•		
BC5	(4)	•	•	•	•	•	•	•	•	•	•		
BC6	(4)											•	•
BC8	(4)	•	•	•	•	•	•	•	•	•	•		
BC9	(4)											•	•
Ventilcassaforma													
CHF22		•	•										
CHF32				•	•								
CHF42						•	•	•	•				
CHF62										•	•	•	•

For further concerning control panels and VMF system refer to the dedicated sheets.

*** The water valves can be combined with the unit if it is also provided a control panel that controls**

**** VJP / VJP_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow**

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCFD324-VCF4424-VCF4524-VCFD424 are 24V

(2) DSC4 It's not available with AMPZ

(3) For vertical installation. BC4 is not available whith valve VCZ-VCZD / VCF-VCFD

(4) For horizontal installation

* = L'accessorio DSC4 non è compatibile con le staffe di installazione AMP e con le bacinelle

*** = Solo per accessorio batteria BV ad 1 rango

Compatibility of accessories

	Single coil models											
FCZI	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**700**	**750**	**900**	**950**
Grille												
GA22	•	•										
GA32			•	•								
GA42					•	•	•	•				
GA62									•	•	•	•
GAF22	•	•										
GAF32			•	•								
GAF42					•	•	•	•				
GAF62									•	•	•	•
GM22	•	•										
GM32			•	•								
GM42					•	•	•	•				
GM62									•	•	•	•
Accessoires for installation												
PA22	•	•										
PA32			•	•								
PA42					•	•	•	•				
PA62									•	•	•	•
PA22F	•	•										
PA32F			•	•								
PA42F					•	•	•	•				
PA62F									•	•	•	•
PM22	•	•										
PM32			•	•								
PM42					•	•	•	•				
PM62									•	•	•	•
RD22	•	•										
RD32			•	•								
RD42					•	•	•	•				
RD62									•	•	•	•
RDA22	•	•										
RDA32			•	•								
RDA42					•	•	•	•				
RDA62									•	•	•	•
RPA17												
RPA22	•	•										
RPA32			•	•								
RPA42					•	•	•	•				
RPA62									•	•	•	•
Plenum for duct installation												
MZC220	•	•										
MZC320			•	•								
MZC530					•	•	•	•				
MZC830									•	•	•	
RDA000V	•	•										
RDA100V			•	•								
RDA200V					•	•	•	•				
RDA300V									•	•	•	•
RPA000V	•	•										
RPA100V			•	•								
RPA200V					•	•	•	•				
RPA300V									•	•	•	•
RDAC000V	•	•										
RDAC100V			•	•								
RDAC200V					•	•	•	•				
RDAC300V									•	•	•	•
PA000V	•	•										
PA100V			•	•								
PA200V					•	•	•	•				
PA300V									•	•	•	•

Compatibility of accessories

	Single coil models											
FCZI	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**550**	**700**	**750**	**900**	**950**
PM000V	•	•										
PM100V			•	•								
PM200V					•	•	•	•				
PM300V									•	•	•	•
RPM000V	•	•										
RPM100V			•	•								
RPM200V					•	•	•	•				
RPM300V									•	•	•	•
RDMC000V	•	•										
RDMC100V			•	•								
RDMC200V					•	•	•	•				
RDMC300V									•	•	•	•

		Twin coil models										
FCZI		**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**701**	**702**	**901**
Probes and accessories for control panels												
WMT21		•	•	•	•	•	•	•	•	•	•	•
SWAI		In combination with WMT21										
VMF System												
VMF-E18		•	•	•	•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•	•	•	•
Water valves												
3 way valve kit												
VCZ41/4124	(1)	•	•									
VCZ42/4224	(1)			•	•	•	•	•	•	•	•	
VCZ43/4324	(1)											•
2 way valve kit												
VCZD1/124	(1)	•	•									
VCZD2/224	(1)			•	•	•	•	•	•	•	•	
VCZD3/324	(1)											•
Combined adjustment and balancing valve independent of pressure**												
VJP060		•	•	•	•							
VJP090						•	•	•	•			
VJP150										•	•	•
VJP060M	(1)	•	•	•	•							
VJP090M	(1)					•	•	•	•			
VJP150M	(1)									•	•	•
3 way valve kit for heating coil only												
VCF44/4424	(1)	•	•	•	•	•	•	•	•	•	•	
VCF45/4524	(1)											•
2 way valve kit for heating coil only												
VCFD4/424	(1)	•	•	•	•	•	•	•	•	•	•	•
Accessoires for installation												
AMP20		•	•	•	•	•	•	•	•			
AMPZ		•	•	•	•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray												
BC4	(3)	•	•	•	•	•	•	•	•	•	•	
BC5	(4)	•	•	•	•	•	•	•	•	•	•	
BC6	(4)											•
BC8	(4)	•	•	•	•	•	•	•	•	•	•	
BC9	(4)											•

For further concerning control panels and VMF system refer to the dedicated sheets.

*** The water valves can be combined with the unit if it is also provided a control panel that controls**

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(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCFD324-VCF4424-VCF4524-VCFD424 are 24V

(2) DSC4 It's not available with AMPZ

(3) For vertical installation. BC4 is not available whith valve VCZ-VCZD / VCF-VCFD

(4) For horizontal installation

Compatibility of accessories

	Twin coil models										
FCZI	**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**701**	**702**	**901**
Ventilcassaforma											
CHF17											
CHF22	•	•									
CHF32			•	•							
CHF42					•	•	•	•			
CHF62									•	•	•
Grille											
GA17											
GA22	•	•									
GA32			•	•							
GA42					•	•	•	•			
GA62									•	•	•
GAF17											
GAF22	•	•									
GAF32			•	•							
GAF42					•	•	•	•			
GAF62									•	•	•
GM17											
GM22	•	•									
GM32			•	•							
GM42					•	•	•	•			
GM62									•	•	•
Accessoires for installation											
PA17											
PA22	•	•									
PA32			•	•							
PA42					•	•	•	•			
PA62									•	•	•
PA17F											
PA22F	•	•									
PA32F			•	•							
PA42F					•	•	•	•			
PA62F									•	•	•
PM17											
PM22	•	•									
PM32			•	•							
PM42					•	•	•	•			
PM62									•	•	•
RD17											
RD22	•	•									
RD32			•	•							
RD42					•	•	•	•			
RD62									•	•	•
RDA17											
RDA22	•	•									
RDA32			•	•							
RDA42					•	•	•	•			
RDA62									•	•	•
RPA17											
RPA22	•	•									
RPA32			•	•							
RPA42					•	•	•	•			
RPA62									•	•	•
Plenum for duct installation											
MZC220	•	•									
MZC320			•	•							
MZC530					•	•	•	•			
MZC830									•	•	•

Compatibility of accessories

	Twin coil models										
FCZI	**201**	**202**	**301**	**302**	**401**	**402**	**501**	**502**	**701**	**702**	**901**
RDA000V	•	•									
RDA100V			•	•							
RDA200V					•	•	•	•			
RDA300V									•	•	•
RPA000V	•	•									
RPA100V			•	•							
RPA200V					•	•	•	•			
RPA300V									•	•	•
RDAC000V	•	•									
RDAC100V			•	•							
RDAC200V					•	•	•	•			
RDAC300V									•	•	•
PA000V	•	•									
PA100V			•	•							
PA200V					•	•	•	•			
PA300V									•	•	•
PM000V	•	•									
PM100V			•	•							
PM200V					•	•	•	•			
PM300V									•	•	•
RPM000V	•	•									
RPM100V			•	•							
RPM200V					•	•	•	•			
RPM300V									•	•	•
RDMC000V	•	•									
RDMC100V			•	•							
RDMC200V					•	•	•	•			
RDMC300V									•	•	•

Technical data (EUROVENT FC2H) Unit for 2 pipe systems (main coil)

FCZI_P			200			250			300			350			400			450		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57
Water flow rate	(1)	l/h	324	258	177	355	278	193	482	391	304	539	431	330	627	503	379	685	551	400
Pressure drop	(1)	kPa	18,0	12,0	6,0	23,0	15,0	7,0	18,0	12,0	7,0	20,0	14,0	8,0	24,0	16,0	9,0	16,0	11,0	6,0
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27
Water flow rate	(2)	l/h	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394
Pressure drop	(2)	kPa	17,5	12,0	6,0	22,0	15,0	8,0	17,5	12,0	8,0	20,5	14,0	8,5	23,5	16,0	9,5	16,0	11,0	6,0
Cooling Performance																				
Total cooling capacity	(3)	kW	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,20	4,03	3,21	2,41
Sensible cooling capacity	(3)	kW	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69
Cooling capacity (latent)	(3)	kW	0,27	0,23	0,18	0,42	0,35	0,27	0,61	0,52	0,42	0,84	0,70	0,56	0,93	0,78	0,61	1,13	0,91	0,72
Water flow rate	(3)	l/h	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414
Pressure drop	(3)	kPa	18,0	12,5	6,5	25,0	17,0	8,5	18,0	13,0	8,0	25,0	17,5	11,0	24,0	16,5	10,0	22,0	15,0	9,0
Fans																				
Centrifugal Fans		n°	1						2						2					
Air flow rate		m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330
Sound level																				
Sound power level	(4)	dB(A)	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37
Sound pressure level		dB(A)	43	38	27	43	38	27	40	33	26	40	33	26	43	36	29	43	36	29
Hydraulic connections																				
Main coil																				
Standard		Ø	1/2"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	14	8	7	14	8	5	13	7	5	13	7	5	18	10	5	18	10	5
Power supply		V/ph/Hz	230V~50Hz																	

FCZI_P			500			550			700			750			900			950		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	8,50	7,31	5,27	9,75	8,34	5,82	11,00	9,80	8,10	12,50	11,30	9,10	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	745	641	462	855	731	510	964	860	710	1096	991	798	1328	1171	945	1500	1264	982
Pressure drop	(1)	kPa	28,0	21,0	12,0	26,0	20,0	10,0	29,1	23,6	16,8	18,0	15,0	10,0	22,0	17,4	12,0	33,0	24,5	15,5
Heating capacity (45°C)	(2)	kW	4,22	3,63	2,62	4,85	4,14	2,89	5,47	4,87	4,03	6,20	5,60	4,50	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(2)	l/h	734	631	455	842	720	502	950	846	699	1079	975	786	1307	1152	930	1476	1245	967
Pressure drop	(2)	kPa	28,0	21,0	12,0	25,5	19,5	10,0	29,0	23,5	16,5	17,5	14,5	10,0	21,5	17,0	12,0	33,0	24,0	15,0
Cooling Performance																				
Total cooling capacity	(3)	kW	4,25	3,69	2,68	4,79	4,13	2,91	5,50	4,89	3,92	6,14	5,34	4,27	6,91	5,00	4,29	8,60	7,32	5,77
Sensible cooling capacity	(3)	kW	3,18	2,73	1,94	3,49	2,98	2,07	4,30	3,76	2,99	4,72	4,05	3,20	5,68	3,78	2,97	5,78	4,87	3,80
Cooling capacity (latent)	(3)	kW	1,07	0,96	0,74	1,30	1,15	0,84	1,20	1,13	0,93	1,42	1,29	1,07	1,23	1,22	1,32	2,82	2,45	1,97
Water flow rate	(3)	l/h	731	634	460	824	711	501	946	841	675	1056	918	734	1189	860	738	1479	1259	992
Pressure drop	(3)	kPa	29,0	22,5	13,0	28,0	21,5	11,5	30,0	24,5	16,5	18,5	14,5	10,0	22,0	12,5	9,5	30,0	22,5	15,0
Fans																				
Centrifugal Fans		n°	2						3						3					
Air flow rate		m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	1140	930	700
Sound level																				
Sound power level	(4)	dB(A)	56	51	42	56	51	42	62	57	50	62	57	50	62	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	48	43	34	54	49	42	54	49	42	54	49	43	53	49	43
Hydraulic connections																				
Main coil																				
Standard		Ø	3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	19	10	4	19	10	4	80	40	30	80	40	30	80	40	30	80	40	30
Power supply		V/ph/Hz	230V~50Hz																	

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data (EUROVENT FC2H) Unit for 2 pipe systems (main coil)

FCZI_P			201			301			401		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	1,60	1,35	1,02	2,56	2,18	1,80	3,12	2,65	2,21
Water flow rate	(1)	l/h	140	118	89	224	191	158	273	232	186
Pressure drop	(1)	kPa	10,5	7,5	4,5	30,5	23,0	16,5	8,5	6,5	4,5
Cooling Performance											
Total cooling capacity	(2)	kW	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20
Sensible cooling capacity	(2)	kW	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59
Cooling capacity (latent)	(2)	kW	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61
Water flow rate	(2)	l/h	275	221	153	456	374	289	619	503	379
Pressure drop	(2)	kPa	18,0	12,5	6,5	18,0	13,0	8,0	34,0	23,5	14,0
Fans											
Centrifugal fans		n°		1			2			2	
Air flow rate		m³/h	290	220	140	450	350	260	600	460	330
Sound level											
Sound power level	(3)	dB(A)	51	46	35	48	41	34	51	44	37
Sound pressure level		dB(A)	43	38	27	40	33	26	43	36	29
Hydraulic connection											
Main coil		Ø		1/2"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	14	8	7	13	7	5	18	10	5
Power supply		V/ph/Hz	230V~50Hz								

FCZI_P			501			701			901		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	3,73	3,34	2,59	4,94	4,29	3,66	5,72	5,63	4,73
Water flow rate	(1)	l/h	327	293	227	437	375	320	501	492	414
Pressure drop	(1)	kPa	10,5	8,5	5,5	18,5	14,5	11,0	12,0	12,0	8,5
Cooling Performance											
Total cooling capacity	(2)	kW	4,25	3,69	2,68	5,50	4,89	3,92	6,91	5,00	4,29
Sensible cooling capacity	(2)	kW	3,18	2,73	1,94	4,30	3,76	2,99	5,68	3,78	2,97
Cooling capacity (latent)	(2)	kW	1,07	0,96	0,74	1,20	1,13	0,93	1,23	1,22	1,32
Water flow rate	(2)	l/h	731	635	461	946	841	675	1188	860	738
Pressure drop	(2)	kPa	29,0	22,5	13,0	30,0	24,5	16,5	9,5	14,5	9,5
Fans											
Centrifugal fans		n°		2			3			3	
Air flow rate		m³/h	720	600	400	1140	930	700	1140	930	700
Sound level											
Sound power level	(3)	dB(A)	56	51	42	61	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	53	49	43	53	49	43
Hydraulic connection											
Main coil		Ø		3/4"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	19	10	4	80	40	30	80	40	30
Power supply		V/ph/Hz	230V~50Hz								

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)
(3) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Technical data (EUROVENT FCP2H) Unit for 2 pipe systems (main coil)

FCZI_P			200			250			300			350			400			450		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,34	3,16	1,81	3,62	3,40	2,01	5,23	4,83	3,08	5,83	5,43	3,32	6,34	5,85	3,96	6,96	6,44	4,10
Water flow rate	(1)	l/h	287	272	156	311	292	173	450	415	265	502	467	285	545	503	341	599	554	353
Pressure drop	(1)	kPa	16,0	13,0	6,0	19,0	17,0	7,0	16,0	14,0	7,0	19,0	17,0	7,0	19,0	17,0	9,0	13,0	12,0	5,0
Heating capacity (45°C)	(2)	kW	1,66	1,57	0,90	1,80	1,69	1,00	2,60	2,40	1,53	2,90	2,70	1,65	3,15	2,91	1,97	3,46	3,20	2,04
Water flow rate	(2)	l/h	288	270	155	308	291	172	447	413	263	499	464	284	542	501	339	595	550	351
Pressure drop	(2)	kPa	15,5	13,0	6,0	19,0	17,0	7,0	16,0	14,1	6,5	19,0	16,5	7,0	19,0	17,0	8,5	13,0	11,5	5,0
Cooling Performance																				
Total cooling capacity	(3)	kW	1,45	1,37	0,80	1,76	1,67	0,95	2,53	2,38	1,40	2,88	2,70	1,66	3,21	2,98	2,03	3,55	3,28	2,22
Sensible cooling capacity	(3)	kW	1,20	1,13	0,63	1,37	1,29	0,70	1,94	1,82	1,10	2,07	1,94	1,15	2,36	2,18	1,45	2,56	2,35	1,54
Cooling capacity (latent)	(3)	kW	0,25	0,24	0,17	0,39	0,38	0,25	0,59	0,56	0,30	0,81	0,76	0,51	0,85	0,80	0,58	0,99	0,93	0,68
Water flow rate	(3)	l/h	249	236	138	303	287	163	435	409	241	495	464	285	552	512	349	610	564	382
Pressure drop	(3)	kPa	15,5	14,0	5,0	21,0	19,0	7,5	17,0	15,0	6,5	23,0	20,5	8,5	20,0	12,6	9,0	18,0	15,5	7,5
Fans																				
Centrifugal fans		n°	1						2						2					
Air flow rate		m³/h	257	240	123	257	240	123	424	390	225	424	390	225	515	470	300	515	470	300
High static pressure		Pa	57	50	13	57	50	13	59	50	16	53	50	16	60	50	20	56	50	20
Sound level																				
Sound Power (Inlet+Radietor)	(4)	dB(A)	59	57	37	59	57	37	53	50	36	53	50	36	55	53	43	55	53	43
Sound Power (Outlet)		dB(A)	55	53	33	55	53	33	49	47	32	49	47	32	52	49	39	52	49	39
Hydraulic connections																				
Main coil																				
Standard		Ø	1/2"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			1/2"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	31	27	7	31	27	7	40	30	10	40	30	10	48	38	14	48	38	14
Power supply		V/ph/Hz	230V~50Hz																	

FCZI_P			500			550			700			750			900			950		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	7,63	7,28	5,39	8,71	8,37	5,92	8.88	8.34	5,33	10.15	9,52	6.17	11,87	11,15	6,58	12,66	11,63	6,68
Water flow rate	(1)	l/h	656	626	464	749	720	509	779	732	468	890	835	541	1021	958	566	1088	1000	574
Pressure drop	(1)	kPa	23,0	22,0	12,0	21,0	20,0	11,0	20,0	17,0	8,0	12,0	11,0	5,0	14,0	13,0	5,0	19,0	17,0	6,0
Heating capacity (45°C)	(2)	kW	3,79	3,62	2,68	4,33	4,16	2,94	4,40	4,15	2,67	5,00	4,69	2,46	5,90	5,54	3,27	6,29	5,78	3,32
Water flow rate	(2)	l/h	652	623	461	745	715	506	767	720	460	860	806	418	1015	953	562	1082	994	571
Pressure drop	(2)	kPa	23,0	21,5	12,0	23,0	21,5	12,0	20,0	17,5	8,0	12,0	10,5	3,3	14,0	13,0	5,0	19,0	16,5	6,0
Cooling Performance																				
Total cooling capacity	(3)	kW	3,84	3,68	2,73	4,31	4,15	2,97	4,30	4,00	2,20	4,70	4,41	2,60	5,20	4,80	2,81	6,46	6,00	3,58
Sensible cooling capacity	(3)	kW	2,85	2,73	1,98	3,12	2,98	2,11	3,20	3,00	1,71	3,50	3,30	1,90	3,90	3,60	2,10	4,27	3,94	2,33
Cooling capacity (latent)	(3)	kW	0,99	0,95	0,75	1,19	1,17	0,86	1,10	1,00	0,49	1,20	1,11	0,70	1,30	1,20	0,71	2,19	2,06	1,25
Water flow rate	(3)	l/h	660	633	469	741	714	511	739	688	378	818	760	447	894	825	483	1111	1032	616
Pressure drop	(3)	kPa	24,5	22,0	13,0	24,5	22,0	13,0	20,0	17,5	7,0	12,0	10,5	4,0	13,4	12,0	5,0	18,0	16,0	6,5
Fans																				
Centrifugal fans		n°	2						3						3					
Air flow rate		m³/h	630	600	410	630	600	410	799	730	405	799	730	405	799	730	405	799	730	405
High static pressure		Pa	55	50	23	55	50	23	60	50	15	60	50	15	60	50	15	60	50	15
Sound level																				
Sound Power (Inlet+Radietor)	(4)	dB(A)	57	56	45	57	56	45	58	55	44	58	55	44	58	55	44	58	55	44
Sound Power (Outlet)		dB(A)	52	52	42	52	52	42	54	51	40	54	51	40	54	51	40	54	51	40
Hydraulic connections																				
Main coil																				
Standard		Ø	3/4"			/			3/4"			/			3/4"			/		
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"		
Electrical data																				
Absorbed power		W	60	50	18	60	50	18	78	61	21	78	61	21	78	61	21	78	61	21
Power supply		V/ph/Hz	230V~50Hz																	

H velocità massima; **M** velocità media; **L** velocità minima

(1) Aria ambiente 20°C b.s.; Acqua (in/out) 70°C/60°C;

(2) Aria ambiente 20°C b.s.; Acqua (in/out) 45°C/40°C (EUROVENT)

(3) Aria ambiente 27°C b.s./19°C b.u.; Acqua (in/out) 7°C/12°C (EUROVENT)

(4) Potenza sonora sulla base di misure effettuate in accordo alla normativa Eurovent 8/2

Pressione sonora (ponderato A) misurato in ambiente con volume V=85 m³, tempo di riverbero t=0,5s fattore di direzionalità Q=2; distanza r=2,5m.

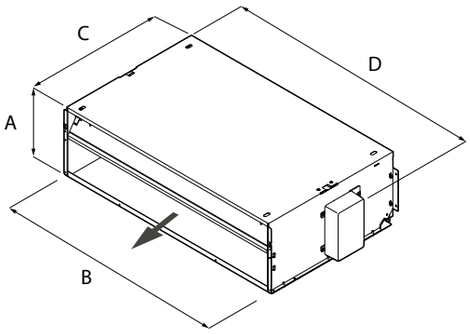
Technical data (EUROVENT FCP4H) Unit for 4 pipe systems (with main + supplementary coil)

FCZI_P			201			301			401		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	1,49	1,42	0,94	2,47	2,34	1,60	2,85	2,69	1,99
Water flow rate	(1)	l/h	128	122	81	212	201	138	245	231	171
Pressure drop	(1)	kPa	9,0	8,5	4,0	13,0	11,5	6,0	8,0	7,0	4,0
Cooling Performance											
Total cooling capacity	(2)	kW	1,45	1,37	0,80	2,53	2,38	1,40	3,21	2,98	2,03
Sensible cooling capacity	(2)	kW	1,20	1,13	0,63	1,94	1,82	1,10	2,36	2,18	1,45
Cooling capacity (latent)	(2)	kW	0,25	0,24	0,17	0,59	0,56	0,30	0,85	0,80	0,58
Water flow rate	(2)	l/h	249	236	138	435	409	241	552	512	349
Pressure drop	(2)	kPa	15,5	14,0	5,0	17,0	15,0	6,5	20,0	12,6	9,0
Fans											
Centrifugal fans		n°		1			2			2	
Air flow rate		m³/h	257	240	123	424	390	225	515	470	300
High static pressure		Pa	57	50	13	59	50	16	60	50	20
Sound level											
Sound Power (Inlet+Radietor)	(3)	dB(A)	59	56	41	53	50	36	55	53	43
Sound Power (Outlet)		dB(A)	55	52	37	49	47	32	52	49	39
Hydraulic connections											
Main coil		Ø		1/2"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	31	27	7	40	11	10	48	38	14
Power supply			230V~50Hz								

FCZI_P			501			701			901		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Hating Performance											
4 pipe systems											
Heating capacity (65°C)	(1)	kW	3,45	3,59	2,62	3,92	3,70	2,99	5,47	5,09	3,17
Water flow rate	(1)	l/h	297	309	225	337	318		470	438	273
Pressure drop	(1)	kPa	9,0	8,5	5,5	12,5	11,5	7,5	11,0	10,0	4,0
Cooling Performance											
Total cooling capacity	(2)	kW	3,84	3,68	2,73	4,30	4,00	2,20	5,24	4,80	2,80
Sensible cooling capacity	(2)	kW	2,85	2,73	1,98	3,20	3,00	1,71	3,90	3,60	2,10
Cooling capacity (latent)	(2)	kW	0,99	0,95	0,75	1,10	1,00	0,49	1,34	1,20	0,70
Water flow rate	(2)	l/h	660	633	469	739	688	378	901	825	482
Pressure drop	(2)	kPa	24,5	22,5	13,0	20,0	17,5	6,0	13,4	11,7	4,5
Fans											
Centrifugal fans		n°		2			3			3	
Air flow rate		m³/h	630	600	410	799	730	405	799	730	405
High static pressure		Pa	55	50	23	60	50	15	60	50	15
Sound level											
Sound Power (Inlet+Radietor)	(3)	dB(A)	57	56	45	58	55	38	58	55	38
Sound Power (Outlet)		dB(A)	52	52	42	54	51	34	54	51	34
Hydraulic connections											
Main coil		Ø		3/4"			3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"			1/2"	
Electrical data											
Absorbed power		W	60	50	18	78	61	21	78	61	21
Power supply			230V~50Hz								

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)
(3) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions and Weights



FCZI_P		200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	/	950
Dimensions for all versions																									
A	mm	216				216				216				216				216				216			
B*	mm	522				753				973				973				1122				1122			
C	mm	453				453				453				453				453				558			
D	mm	562				793				1013				1013				1147				1147			
Weight	kg	12	13	14	14	14	15	16	16	20	21	22	22	23	23	24	24	26	27	28	28	32			

* maximum dimensions

Cod.: SFCZIPUY.07 / 1801

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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Omnia UL P

Fan coils
Ceiling installations residential applications

Aermec
participate in the EUROVENT
program: FCH
the products are present on the site
www.eurovent-certification.com



VMF

Features

- UL (Universal Line) fan coils for both horizontal and vertical installation
- **Versions**:
  UL-P Without cabinet for ceiling installation
- **Fan cleaning**: Omnia fan coils allow fan blades to be easily cleaned. It is now possible to remove the fan volute (it contains the fan blades) and clean it periodically.
- **Condensate drip tray cleaning**: Thanks to a new drip tray fitting, it is now easier to clean it with Omnia fan coils. This important solution avoids, in the long run, bacteria, germs and mould to grow up, in the drip tray because of the air humidity.
- **Precharged electrostatic filter**: Omnia fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.
- **PLASMACLUSTER ionising filter**: Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. Using a series of electric shocks, "Plasmacluster" causes the water molecules present in the air to separate into positive and negative ions. These ions neutralise the gas pollutant molecules, forming products that are normally present in clean air. The result is in the air: you can finally breath clean, odour-free ionised air.
- **Silent operation**: Thanks to the use of special centrifugal fans, Omnia fan coils operation is extremely silent and offers the maximum acoustic comfort.
- 3-speed centrifugal fan
- Very quiet operation
- Slim dimensions
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Air filter easy to remove and to clean
- Full compliance with safety regulations

Accessories

- **BC**: Auxiliary condensate drip tray.
  BC 10 for vertical installation
  BC 20 for horizontal installation
- **DSC5**: Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **SIT 3-5**: Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
  SIT3: commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
  SIT5: commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW**: Water probe wich enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA**: External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH**: Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD**: Kit comprising motorized 2-way valve, unions and copper pipes.
- **CHU_L**: Ventilcassaforma, recessed installation template. For further details, refer to the specific data sheet.
- **Control panels and VMF System**: The control panels are described in a separate document.

Omnia UL_P		11	16	26	36
FMT21		•	•	•	•
SWA	(1)	•	•	•	•
PX2 o PX2C6	(2)	•	•	•	•
PXAE		•	•	•	•
TPF		•	•	•	•
WMT05		•	•	•	•
WMT10		•	•	•	•
VMF-E4 o E4D		•	•	•	•
VMF-E0 o E1		•	•	•	•
BC10		•	•	•	•
BC20		•	•	•	•
DSC5	(3)	•	•	•	•
SIT3		•	•	•	•
SIT5		•	•	•	•
SW3		•	•	•	•
Ventilcassaforma		CHU12L	CHU17L	CHU27L	CHU37L
VCH		•	•	•	•
VCHD		•	•	•	•

(1)SWA probe for FMT21
(2) PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation
(3) The DSC5 accessory is not compatible BC10 - BC20 accessories.

Technical data

Omnia UL_P			11			16			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	2,0	1,0	1,0	4,0	2,0	1,0	11,0	8,0	5,0	7,0	5,0	3,0
Heating capacity (45°C)	(2)	kW	1,00	0,73	0,52	1,44	1,05	0,76	2,29	1,90	1,44	2,95	2,42	1,75
Water flow rate	(2)	l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2,0	1,0	1,0	2,5	2,5	1,5	11,0	8,0	5,0	18,0	12,5	7,0
Cooling Performance														
Total cooling capacity	(3)	kW	0,82	0,67	0,53	1,17	0,87	0,69	1,99	1,65	1,26	2,79	2,26	1,63
Sensible cooling capacity	(3)	kW	0,68	0,52	0,38	0,96	0,69	0,52	1,61	1,30	0,97	2,00	1,59	1,13
Cooling capacity (latent)	(3)	kW	0,14	0,15	0,15	0,21	0,18	0,17	0,38	0,35	0,29	0,79	0,67	0,50
Water flow rate	(3)	l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	2,0	1,5	1,0	5,0	3,0	2,2	11,0	8,0	5,0	19,0	13,0	6,8
Water content		l		0,4			0,5			0,8			1,1	
Fans														
Fan		type/n°	centrifugal/1						centrifugal/2					
Air flow rate		m³/h	180	120	80	240	160	110	350	270	190	460	350	240
Sound data														
Sound power level	(4)	dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections														
Standard coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	18	12	8	32	25	23	35	27	24	42	35	30
Electrical waring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz	230V~50Hz											

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

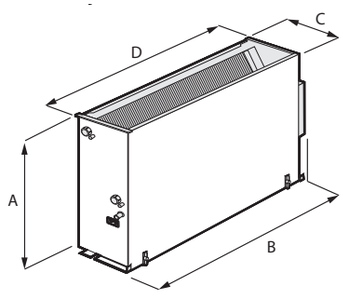
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

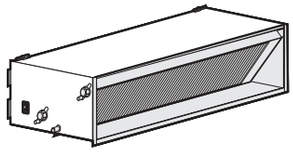
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

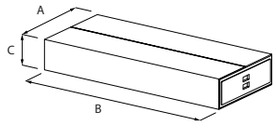
Dimensions (mm)



Vertical installation



horizontal installation



PACKAGING design example

OMNIA ULI_P / PAF			11	16	26	36
Height	A	mm	465	465	465	465
Width	B*/D	mm	420.5/360.5	530.5/470.5	761.5/701.5	981.5/921.5
Depht	C	mm	171	171	171	171
Weight[1]		kg	10.2	11.6	14.9	18.3

PACKAGING design example						
A/B/C		mm	590/275/710	590/275/820	590/275/1050	590/275/1270

*overall dimensions

1 Weight standard unit without accessoires

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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Cod.: SOULUY.02/ 1801

Omnia ULI P

Fan coils with Inverter Brushless motor (EC)
Wall/ceiling installation for residential use

Aermec
is participating in the EUROVENT Program : FCH
The related products can be found at the website
www.eurovent-certification.com



Features

Recessed fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electric saving.
It can be installed on 2-pipe systems and combined with any heat generator also at low temperatures.
Choosing the optimal solution for any requirement is easy thanks to the various versions available and possibility of horizontal or vertical installation.

- **Versions without thermostat on board**:
  ULI-P: wall/ceiling mounted without cabinet.
  ULI-PAF: Wall/ceiling mounted without cabinet with front intake
- **Cleaning the fan**: Omnia fan coils allow you to clean the fan more easily. Now the fan screw feeder (blade casing) can be opened to allow you to clean the blades periodically.
- **Cleaning the condensate drip tray**: The new condensate drip tray of the Omnia fan coils fixing system allows you to clean it more easily. This important solution prevents, in the long term, bacteria, germs, and mould from forming in the drip tray, due to the presence of humidity condensate in the air.
- **Electro-statically pre-charged filter**: Omnia fan coils are equipped, as per standard, with electro-statically pre-charged filters. These filters absorb and hold airborne dust due to their special construction. This ideal system guarantees healthy air for the entire family.
- **Silent operation**: The special centrifugal coils with Brushless motor with 0-100% continuous speed variation provide Omnia fan coils with extremely silent ventilation and guarantee acoustic comfort thanks to the absence of noise peaks.
- Reversibility of hydraulic connections during installation
- Low pressure drop in heat exchange coils
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning.

Accessories

Thermostat

- **WMT21**: Electronic thermostat for wall/ceiling installation
- **SWAI**: Water temperature probe for WMT21 panels (2 m cable length)

VMF system

- **VMF-E18**: Thermostat for serial communication
- **VMF-E4**: The wall user interface allows you to control the functions via capacitive touch keyboard.
- **VMF-E5**: The wall recessed panel allows you to control the functions of a complete hydronic system via capacitive touch keyboard.

For further information on the thermostats and VMF system, refer to the documentation available at www.aermec.com

- **BC**: Auxiliary condensate drip tray.
  BC10 for vertical installation.
  BC20 for horizontal installation.
- **DSC5**: Condensate draining device when level differences must be exceeded.
- **VCH**: Kit composed of 3-way motorised valve and copper pipes and connections.
- **VCHD**: Kit composed of 2-way motorised valve and copper pipes and connections.
- **CHU_L**: Ventilcassaforma, recessed installation template. For further details, refer to the specific data sheet.

Omnia ULI_P/PAF	vers.	16	26	36
Thermostat				
WMT21		•	•	•
SWAI		•	•	•
VMF system				
VMF-E4		•	•	•
VMF-E5		•	•	•
AMP10		•	•	•

Omnia ULI_P/PAF	vers.	16	26	36
BC10		•	•	•
BC20		•	•	•
DSC5	(1)	•	•	•
VCH		•	•	•
VCHD		•	•	•
Ventilcassaforma		CHU17L	CHU27L	CHU37L
ZU		•	•	•

(1) DSC5 is not compatible with trays BC10 - BC20

Technical data

Omnia ULI			16			26			36		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance											
2 pipe configuration											
Heating capacity (70°C)	(1)	kW	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	4,0	2,0	1,0	11,0	8,0	5,0	7,0	5,0	3,0
Heating capacity (45°C)	(2)	kW	1,44	1,05	0,76	2,29	1,90	1,44	2,95	2,42	1,75
Water flow rate	(2)	l/h	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2,5	2,5	1,5	11,0	8,0	5,0	18,0	12,5	7,0
Cooling Performance											
Total cooling capacity	(3)	kW	1,17	0,87	0,69	1,99	1,65	1,26	2,79	2,26	1,63
Sensible cooling capacity	(3)	kW	0,96	0,69	0,52	1,61	1,30	0,97	2,00	1,59	1,13
Cooling capacity (latent)	(3)	kW	0,21	0,18	0,17	0,38	0,35	0,29	0,79	0,67	0,50
Water flow rate	(3)	l/h	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	5,0	3,0	2,2	11,0	8,0	5,0	19,0	13,0	6,8
Water content		l		0,5			0,8			1,1	
Fans											
Fan - Centrifugal		n°		1			2				
Air flow rate		m³/h	240	160	110	350	270	190	460	350	240
Sound data											
Sound power level	(4)	dB(A)	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	26	40	35	27	40	33	26
Diameter connections											
Standard coil		Ø		1/2"			1/2"			1/2"	
Electrical Features											
Absorbed power		W	12	8	6	15	10	7	18	12	8
Signal 0-10V		%	83	56	38	90	70	49	90	70	48
Power supply			230V~50Hz								

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

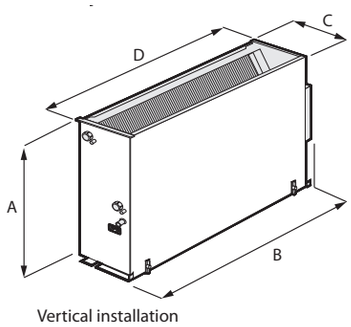
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

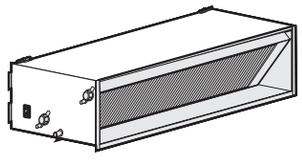
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

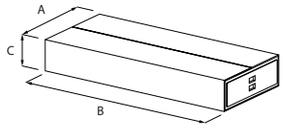
Dimensions (mm)



Vertical installation



horizontal installation



PACKAGING design example

OMNIA ULI_P / PAF		16	26	36
A	mm	465	465	465
B*/D	mm	530.5/470.5	761.5/701.5	981.5/921.5
C	mm	171	171	171
Weight[1]	kg	11.6	14.9	18.3
PACKAGING design example				
A/B/C	mm	590/275/820	590/275/1050	590/275/1270

*overall dimensions

1 Weight standard unit without accessoires

Aermec reserves the right to make all the modifications deemed necessary for improving the product, including technical data.

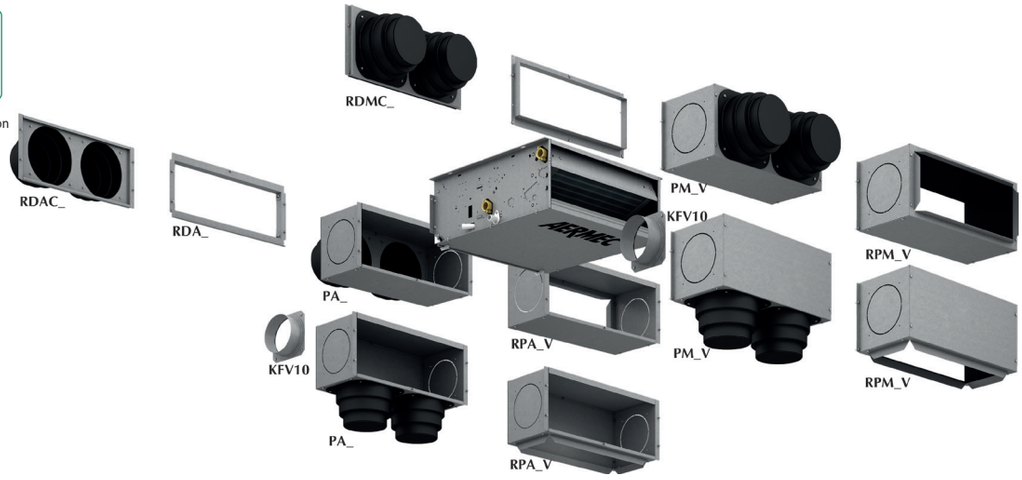
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VED

Fan coil unit
For ducted installations
with cooling capacity from 0.99 to 5.82kW

Aermec participates in the EUROVENT Certification Programme FCP. The products of interest can be found on the site: www.eurovent-certification.com

Variable Multi Flow
VMF



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 ROW HEATING ONLY COIL (ACCESSORY BV)**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

Configuration fields:

1 2 3	4	5	6
Code	Size	Main Coil	0

Example:

1 2 3	4	5	6
VED	**0**	**3**	**0**

(VED030 = unit Size 0, with 3 Row Main Coil)

Characteristics

- Ducted air conditioning terminal unit
- Horizontal and vertical installation
- Internal installation
- Available in 8 sizes
- 3 or 4 row coils for 2-pipe systems
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Reversing of hydraulic connections side on site
- Low pressure drop heat exchanger
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- 6 and 7 speed fan assembly (3 selectable)
- Large range of available static pressure
- Centrifugal fans in anti-static plastic material. Their characteristics permit energy savings compared to conventional fans
- Fans with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Compatible with many accessories already available on the FCX range
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in Class 1 fire retardant material
- Protective rating IP20
- Fan housing in plastic material removable for easy and effective cleaning
- Ease of installation and maintenance
- Full compliance with safety standards.

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe,
  2 pipe + Plasmacluster, 2 pipe + UV lamps,
  2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil

- **BV**: Single row hot water heat exchanger.

Valve kit

- **VCF_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCFD: Kit consisting of powered 2-way valve,** copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Accessory for Installation

- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.

Ducting Accessories:

- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid

- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED		030	040	130	140	230	240	330	340
Probes and accessories for control panels									
KTLP		•	•	•	•	•	•	•	•
PX-PX2-PX2C6	(1)	•	•	•	•	•	•	•	•
PXAE		•	•	•	•	•	•	•	•
PXAR		•	•	•	•	•	•	•	•
TPF		•	•	•	•	•	•	•	•
WMT05-06-10		•	•	•	•	•	•	•	•
FMT10		•	•	•	•	•	•	•	•
FMT21		•	•	•	•	•	•	•	•
SWA		In combination with FMT21							
SW3		In combination with PXAE or PXAR							
SIT3		In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05*-06-10							
SIT5		In combination with FMT21 or PXAE or PXAR							
VMF System									
VMF-E0		•	•	•	•	•	•	•	•
VMF-E1		•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•
Additional coil (heating only)									
BV030		•							
BV130				•					
BV230						•			
BV162								•	
Water valves									
Valve Kit for 4 pipe systems with Main coil									
VCF3X4L-R		•	•	•	•	•	•	•	•
3 way valve kit									
VCF43/4324	(2)	•	•	•	•	•	•	•	•
VCF43S/4324S	(2)				•		•		
2 way valve kit									
VCFD3/324	(2)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only									
VCF45/4524		•		•		•		•	

For more details on the control panels and VMF system refer to the dedicated sheet.
* WMT05 is not available with additional coil (heating only) BV
(1) **Only for wall installation;** (PX2C6 panel PX2 in multiple 6 pz.)
(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

Accessories

VED		030	040	130	140	230	240	330	340
2 way valve kit for heating coil only									
VCFD4/424		•		•		•		•	
Combined adjustment and balancing valve independent of pressure*									
VJP060/060M	(2)	•	•	•	•				
VJP090/090M	(2)					•	•	•	•
VJP150/150M	(2)							•	•
Accessories for installation									
AMP		•	•	•	•	•	•	•	•
DSC4	(3)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
Auxiliary condensate drip tray									
BC4	(4)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•
Grille									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(5)	•	•						
SE30X	(5)			•	•				
SE40X	(5)					•	•		
SE80X	(5)							•	•
Plenum for duct installation									
MZC220		•	•						
MZC320				•	•				
MZC530						•	•		
MZC830								•	•
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(6)	•	•						
RPA100V	(6)			•	•				
RPA200V	(6)					•	•		
RPA300V	(6)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(6)	•	•						
PA100V	(6)			•	•				
PA200V	(6)					•	•		
PA300V	(6)							•	•
PM000V	(6)	•	•						
PM100V	(6)			•	•				
PM200V	(6)					•	•		
PM300V	(6)							•	•
RPM000V	(6)	•	•						
RPM100V	(6)			•	•				
RPM200V	(6)					•	•		
RPM300V	(6)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

***VJP / VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M-VJP090M are 24V

(3) DSC4 It's not available with AMP - BC -VMF system

(4) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

(5) The accessory SE require pairing with ZX

(6) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

Technical data

VED			30			40			130			140			230			240			330			340		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1)	kPa	9,0	7,0	3,0	12,0	10,0	4,0	26,0	22,0	13,0	18,0	16,0	9,0	37,0	30,0	27,0	32,0	26,0	18,0	16,0	13,0	9,0	32,0	28,0	22,0
Heating capacity (45°C)	(2)	kW	1,83	1,67	0,90	1,94	1,77	1,18	3,12	2,90	2,18	3,27	3,02	2,24	3,56	3,23	2,66	3,93	3,55	2,88	5,22	4,64	3,88	5,44	4,98	3,98
Water flow rate	(2)	l/h	318	291	157	338	308	204	543	504	380	568	526	390	618	561	462	683	616	501	907	807	674	945	865	718
Pressure drops	(2)	kPa	9,0	7,5	2,5	12,5	10,5	5,0	27,5	24,0	14,5	18,5	16,0	9,5	36,0	29,0	26,0	32,0	26,5	18,1	16,5	13,5	10,0	23,0	19,5	13,0
Cooling Performance																										
Total cooling capacity	(3)	kW	1,56	1,41	0,97	1,84	1,68	1,10	2,91	2,74	2,05	3,22	3,00	2,24	3,33	3,07	2,55	3,93	3,57	2,86	4,90	4,35	3,62	5,26	4,72	3,92
Sensible cooling capacity	(3)	kW	1,18	1,07	0,73	1,29	1,19	0,79	2,01	1,89	1,41	2,30	2,14	1,58	2,61	2,38	1,96	2,92	2,65	2,16	3,63	3,26	2,74	3,89	3,50	2,89
Cooling capacity (latent)	(3)	kW	0,38	0,34	0,24	0,55	0,49	0,31	0,90	0,85	0,64	0,92	0,86	0,66	0,72	0,69	0,59	1,01	0,92	0,70	1,27	1,09	0,88	1,37	1,22	1,03
Water flow rate	(3)	l/h	279	250	170	327	296	193	515	480	358	566	525	390	588	538	445	691	624	499	860	760	633	922	824	685
Pressure drops	(3)	kPa	8,6	7,2	3,2	14,3	11,9	5,4	31,4	27,2	15,3	23,2	20,0	11,0	44,0	36,0	25,0	36,8	30,7	15,7	18,2	14,2	9,9	25,6	21,2	15,8
Fans																										
Fan - Centrifugal		n°	1			1			2			2			2			2			3			3		
Air flow rate		m³/h	285	256	161	277	249	160	433	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure		Pa	61	50	21	61	50	21	60	50	26	60	50	26	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	59	38	23	58	38	23	76	53	34	75	52	34	93	57	43	92	57	43	104	75	63	103	74	63
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V3	V1	V6	V3	V1	V7	V3	V1	V7	V3	V1
Power supply			230V~50Hz																							

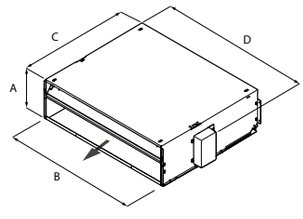
VED	from VED030 to VED240						from VED330 to VED340						
Speed - fan	**V6**	**V5**	**V4**	**V3**	**V2**	**V1**	**V7**	**V6**	**V5**	**V4**	**V3**	**V2**	**V1**
motor connected	L1	L2	L3	L4	L5	L6	L1	L2	L3	L4	L5	L6	L7

Note: The speed of associates may differ from the standard factory configuration.
for more information refer to the program selection and the technical documentation available on the website www.aermec.com

H max. speed; **M** med.speed; **L** min.speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensions (mm)

VED		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Net weight	Kg	22	24	25	33	33	34	35	34



All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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Cod.: SVED0UY.07 / 1712

AERMEC

VED

Air handling terminal with cooling capacities from 8 to 18 kW
For ducted systems

AERMEC partecipates in the EUROVENT programme for: FCP
Check ongoing validity of certificate online: www.eurovent-certification.com

Variable Multi Flow

VMF



- **HORIZONTAL AND VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **HEAT EXCHANGER ONLY WITH 1 OR 2 ROWS**
- **WIDE RANGE OF USEFUL STATIC PRESSURE**
- **5 SPEED VENTILATION UNIT**
- **INSPECTIONABLE FAN UNIT**
- **CLASS G3 AIR FILTER**
- **COIL REVERSIBILITY**

Choosing the unit

By appropriately combining the options available, it is possible to select the model that satisfies the specific system requirements.

Fields configurator:

1 2 3	4	5	6
Code	Size	Main coil n°. rows	Heating only coil n°. rows
VED	**5**	**3**	**2**

(VED532 = unit size 5, with Main Coil 3 Rows and Heating Coil 2 Rows)

Features

- Air handling terminal for ducted systems
- EUROVENT FCP Certification Program
- Horizontal and vertical installation
- Indoor installation
- Available in 4 sizes and 4 configurations
- Versions for 2 pipe systems with 3 or 4 row coil
- Versions for systems with 4 pipes with main coil with 3 or 4 rows and heating only coil with 1 or 2 rows
- Reversibility of the hydraulic connection in the installation phase
- Low pressure drop in the heat exchange coils
- 3-way valves accessories
- 2-way valves accessories for systems with variable water flow rate
- 5 speed fan unit (3 selectable)
- Wide range of useful static pressure
- Centrifugal fans in antistatic plastic. Due to their features, they allow to reduce the energy consumption with respect to normal fans
- Fans with wing-shaped profile studied to obtain high flow rate and static pressure performance and low noise emission at the same time
- Compatible with the VMF system
- Wide range of controls
- Wide range of accessories to satisfy all system requirements
- Rectangular flow flange already integrated into the framework
- Class G3 air filter with easy extraction and cleaning
- Internal insulation in Class 1 fire resistance
- IP20 protection rating
- Plastic augers, extractable for easy and efficient cleaning
- Easy installation and maintenance
- Full respect of the accident-prevention standards

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.
- **VMF-SIT 3** : Thermostat Interface Board

VMF. Mandatory accessory on the VED unit supplied with VMF-E0 / E1 thermostat.

Valve kit

- **VCF4_C**: **Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4_H**: **Kit made up from motorised 3-way valves**, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- **VCF25C: Kit made up from motorised 2-way valves**, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

The VJP is controlled by on-off logic with compatible control panels (accessories)

The VJP_M is controlled by modulating logic with panels not supplied by Aermec

The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

- **VCT 2-way or 3-way valve The VCT valves do not have fittings and pipes for water connections.**
  These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.

Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV**: Circular flanges kit for intake/discharge plenum.

For more details on the control panels and VMF system refer to the dedicated sheet

VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
Probes and accessories for control panels																	
PXAE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05		•		•		•		•		•		•		•		•	
WMT06		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3		In combination with PXAE or PXAR															
SIT3	(1)	In combination with PXAE or WMT05-06-10															
SIT5	(2)	In combination with PXAE															
VMF System																	
VMF-E0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SIT3	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valves																	
3 way valve kit																	
VCF45C		•	•	•	•	•	•	•	•								
VCF47C										•	•	•	•	•	•	•	•
3 way valve kit for heating coil only																	
VCF45H			•		•		•		•								
VCF47H											•		•		•		•
2 way valve kit																	
VCF25C		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2 way valve kit for heating coil only																	
VCF25H			•		•		•		•		•		•		•		•
Combined adjustment and balancing valve independent of pressure																	
VJP150/150M	(4)(5)	•	•	•	•	•	•	•	•								
VJP270M	(4)(5)									•	•	•	•	•	•	•	•
Kit valvola a due o tre vie																	
VCT (2 way)	(5)	VCT102		VCT102		VCT102		VCT102		VCT202		VCT202		VCT202		VCT202	
VCT (3 way)	(5)	VCT103		VCT103		VCT103		VCT103		VCT203		VCT203		VCT202		VCT403	
Plenum for duct installation																	
MZC5040		•	•	•	•	•	•	•	•								
MZC7050										•	•	•	•	•	•	•	•
RDA 450 V		•	•	•	•	•	•	•	•								
RDA 670 V										•	•	•	•	•	•	•	•
RPA 450 V		•	•	•	•	•	•	•	•								
RPA 670 V										•	•	•	•	•	•	•	•
PA 450 V		•	•	•	•	•	•	•	•								
PA 670 V										•	•	•	•	•	•	•	•
RPM 450 V		•	•	•	•	•	•	•	•								
RPM 670 V										•	•	•	•	•	•	•	•
PM 450 V		•	•	•	•	•	•	•	•								
PM 670 V										•	•	•	•	•	•	•	•
KFV		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) SIT3 Mandatory accessory on the VED units coupled to thermostats different to the VMF System
(2) SIT5 Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel
(3) VMF-SIT3 Mandatory accessory for coupling with VMF-E0 or VMF-E1
(4) VJP150M-VJP270M are 24Volt
(5) **The compatibility of the valves in the hot side of the system 4 tubes, check with the scope of the project water**

Technical data

VED			430			440			530			540			630			640			730			740		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	15,97	13,85	10,47	18,11	15,36	11,45	17,57	16,47	13,80	19,91	18,59	15,38	27,02	22,67	18,63	32,69	27,74	22,45	29,00	25,36	21,18	31,71	27,65	22,88
Water flow rate	(1)	l/h	1401	1214	918	1588	1347	1004	1541	1444	1210	1746	1630	1349	2369	1988	1634	2867	2433	1969	2543	2224	1857	2781	2425	2007
Pressure drops	(1)	kPa	19,0	14,0	9,0	24,0	18,0	11,0	21,0	18,0	13,0	29,0	25,0	18,0	58,0	43,0	30,0	38,0	29,0	19,0	67,0	55,0	38,0	46,0	36,0	26,0
Heating capacity (45°C)	(2)	kW	7,94	6,88	5,20	9,01	7,64	5,69	8,74	8,19	6,86	9,90	9,24	7,45	13,40	11,20	9,26	14,80	12,40	9,88	14,20	12,60	10,50	15,70	13,70	11,30
Water flow rate	(2)	l/h	1366	1183	894	1550	1314	979	1503	1409	1180	1703	1589	1281	2305	1926	1593	2546	2133	1699	2442	2167	1806	2700	2356	1944
Pressure drops	(2)	kPa	18,5	14,0	8,5	24,0	18,0	10,5	20,5	18,5	13,5	29,5	25,0	21,0	57,5	42,0	29,5	32,0	23,5	15,5	65,5	51,5	37,5	35,0	35,5	25,5
Cooling Performance																										
Total cooling capacity	(3)	kW	6,72	5,98	4,54	7,79	6,88	5,21	7,49	7,16	5,99	8,70	8,31	7,26	12,19	10,43	8,67	14,80	12,50	10,20	13,48	11,92	10,17	15,71	13,95	11,73
Sensible cooling capacity	(3)	kW	5,13	4,54	3,40	5,51	4,86	3,65	5,75	5,48	4,55	6,18	5,90	4,87	9,96	8,48	7,00	10,30	8,62	7,02	11,07	9,71	8,25	10,95	9,69	8,11
Cooling capacity (latent)	(3)	kW	1,59	1,44	1,14	2,28	2,02	1,56	1,74	1,68	1,44	2,52	2,41	2,39	2,23	1,95	1,67	4,50	3,88	3,18	2,41	2,21	1,92	4,76	4,26	3,62
Water flow rate	(3)	l/h	1156	1029	781	1340	1183	896	1288	1232	1030	1496	1429	1249	2097	1794	1491	2546	2150	1754	2319	2050	1749	2702	2399	2018
Pressure drops	(3)	kPa	17,0	13,0	8,0	22,0	17,0	10,0	21,0	19,0	12,0	28,0	25,0	19,0	48,0	36,0	26,0	46,7	34,1	23,9	58,0	46,0	35,0	45,0	37,0	27,0
Water content		l	2,82			3,76			2,82			3,76			4,38			5,84			4,38			5,84		
Fans																										
Fan - Centrifugal		n°	2			2			2			2			3			3			3			3		
Air flow rate		m³/h	1350	1130	790	1340	1100	780	1520	1400	1120	1500	1380	1100	2210	1800	1380	2440	2004	1567	2410	2040	1640	2350	2000	1600
High static pressure		Pa	72	50	24	63	50	<	70	50	32	56	50	32	75	50	30	75	50	30	69	50	32	64	50	32
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	61	57	51	61	57	51	62	59	53	62	59	53	68	64	61	68	64	61	68	66	62		66	62
Sound power level (outlet)		dB(A)	57	53	47	57	53	47	58	55	49	58	55	49	64	60	57	64	60	57	64	62	58	68	62	58
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	228	175	137	222	178	135	270	232	175	267	230	172	340	271	220	340	293	220	371	285	234	371	285	234
Electrical wiring			V5	V3	V1	V5	V3	V1	V5	V4	V2	V5	V4	V2	V5	V3	V1	V5	V3	V1	V5	V3	V1	V5	V3	V1
Power supply		V/ph/Hz	230V~50Hz																							

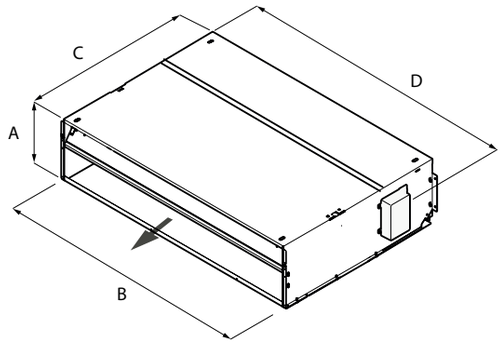
VED			441			541			641			741		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
4 pipe configuration														
Heating capacity (65°C)	(4)	kW	7,30	6,68	5,53	7,89	7,62	6,70	12,30	11,00	9,65	12,90	11,80	10,50
Water flow rate	(4)	l/h	627,8	574,48	475,58	678,54	655,32	576,2	1057,8	946	829,9	1109,4	1014,8	903
Pressure drops	(4)	kPa	23,0	19,5	14,0	26,0	24,5	19,5	23,5	19,0	15,0	25,0	21,5	17,5
Cooling Performance														
Total cooling capacity	(3)	kW	8,00	7,05	5,35	8,94	8,56	7,46	15,20	12,70	10,40	16,10	14,20	11,90
Sensible cooling capacity	(3)	kW	5,74	5,03	3,79	6,42	6,14	5,07	10,70	8,92	7,26	11,30	9,96	8,37
Cooling capacity (latent)	(3)	kW	2,26	2,02	1,56	2,52	2,42	2,39	4,50	3,78	3,14	4,80	4,24	3,53
Water flow rate	(3)	l/h	1376	1212,6	920,2	1537,68	1472,32	1283,12	2614,4	2184,4	1788,8	2769,2	2442,4	2046,8
Pressure drops	(3)	kPa	23,5	18,5	11,5	29,0	27,0	21,0	47,5	34,5	24,0	45,5	36,5	27,0
Water content std. coil		l	3,76			3,76			5,84			5,84		
Water content additional coil		l	0,94			0,94			1,46			1,46		
Fan														
Fan - Centrifugal		n°	2			2			3			3		
Air flow rate		m³/h	1253	1060	750	1453	1360	1060	2120	1730	1340	2358	2000	1600
High static pressure		Pa	70	50	25	57	50	32	75	50	30	69	50	32
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	61	57	51	62	59	53	68	64	61	68	66	62
Sound power level (outlet)		dB(A)	57	53	47	58	55	49	64	60	57	64	62	58
Diameter connections														
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	215	175	131	265	229	170	341	264	224	373	288	224
Electrical wiring			V5	V4	V1	V5	V4	V2	V5	V3	V1	V5	V3	V1
Power supply		V/ph/Hz	230V~50Hz											

VED	from VED430 to VED741				
Speed - fan	V5	V4	V3	V2	V1
motor connected	L1	L2	L3	L4	L5

Note: The speed of associates may differ from the standard factory configuration.
for more information refer to the program selection and the technical documentation available on the website www.aermec.com

H max. speed; **M** med.speed; **L** min.speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensional data (mm)



VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
A	mm	300	300	300	300	300	300	300	300	351	351	351	351	351	351	351	351
B	mm	1133	1133	1133	1133	1133	1133	1133	1133	1533	1533	1533	1533	1533	1533	1533	1533
C	mm	737	737	737	737	737	737	737	737	789	789	789	789	789	789	789	789
D	mm	1158	1158	1158	1158	1158	1158	1158	1158	1558	1558	1558	1558	1558	1558	1558	1558
Weight	Kg	41	46	43	46	42	47	47	47	57	57	60	60	58	64	61	64

Code : SVEDUY.05 / 1712

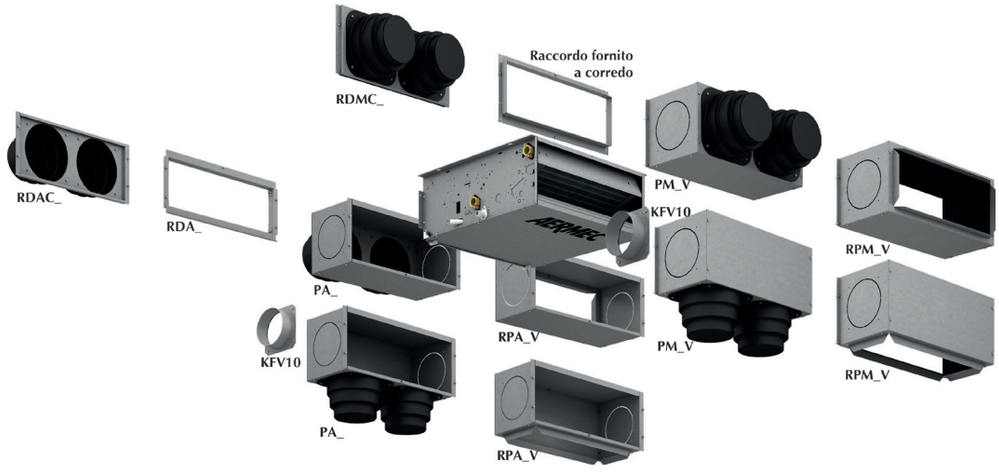
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VED__I

Fan coil unit with Brushless Inverter motor (EC) for ducted systems
Cooling capacities 0,99÷5,82kW

AERMEC
partecipates in the EUROVENT programme for: FCP
Check ongoing validity of certificate online: www.eurovent-certification.com



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 ROW HEATING ONLY COIL (ACCESSORY BV)**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **CENTRIFUGAL FANS INVERTER**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

Configuration fields:

1 2 3	4	5	6	7
Code	Size	Main Coil	Main coil only hot	Inverter motor

Example:

1 2 3	4	5	6	7
VED	**0**	**3**	**0**	**I**

Characteristics

- Ducted air conditioning terminal unit
- Internal installation
- 3 or 4 row coils for 2-pipe systems
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Reversing of hydraulic connections side on site
- Low pressure drop heat exchanger
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Centrifugal fans with motor inverter
- Large range of available static pressure
- Centrifugal fans in anti-static plastic material. Their characteristics permit energy savings compared to conventional fans
- Fans with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in Class 1 fire retardant material
- Protective rating IP20
- Fan housing in plastic material removable for easy and effective cleaning
- Ease of installation and maintenance
- Full compliance with safety standards.

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels

- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m.

VMF system

- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18**: Thermostat for serial communication
- **VMF-SW**: water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil

- **BV**: Single row hot water heat exchanger.

Valve kit

- **VCF_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCF4_C**: **Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4_H**: **Kit made up from motorised 3-way valves**, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- **VCF25C: Kit made up from motorised 2-way valves**, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Accessory for Installation

- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.

Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid

- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED_I		030	040	130	140	230	240	330	340
Probes and accessories for control panels									
WMT21		•	•	•	•	•	•	•	•
SWAI		In combination with WMT21							
VMF System									
VMF-E18		•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•
Additional coil (heating only)									
BV030		•							
BV130				•					
BV230						•			
BV162								•	
Water valves									
Valve Kit for 4 pipe systems with Main coil									
VCF3X4L-R		•	•	•	•	•	•	•	•
3 way valve kit									
VCF43/4324	(1)	•	•	•	•	•	•	•	•
2 way valve kit									
VCFD3/324	(1)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only									
VCF45/4524		•		•		•		•	
2 way valve kit for heating coil only									
VCFD4/424		•		•		•		•	
Combined adjustment and balancing valve independent of pressure									
VJP060/060M	(1)	•	•	•	•				
VJP090/090M	(1)					•	•		
VJP150/150M	(1)							•	•
Accessories for installation									
AMP		•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
Auxiliary condensate drip tray									
BC4	(3)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•

* **VJP / VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**

For more details on the control panels and VMF system refer to the dedicated sheet.

(1) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(2) DSC4 It's not available with AMP - BC -VMF system.

(3) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

Technical data

VED_I		030	040	130	140	230	240	330	340
Grille									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(4)	•	•						
SE30X	(4)			•	•				
SE40X	(4)					•	•		
SE80X	(4)							•	•
Plenum for duct installation									
MZC220		•	•						
MZC320				•	•				
MZC530						•	•		
MZC830								•	•
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(5)	•	•						
RPA100V	(5)			•	•				
RPA200V	(5)					•	•		
RPA300V	(5)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(5)	•	•						
PA100V	(5)			•	•				
PA200V	(5)					•	•		
PA300V	(5)							•	•
PM000V	(5)	•	•						
PM100V	(5)			•	•				
PM200V	(5)					•	•		
PM300V	(5)							•	•
RPM000V	(5)	•	•						
RPM100V	(5)			•	•				
RPM200V	(5)					•	•		
RPM300V	(5)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

(4) The accessory SE require pairing with ZX

(5) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

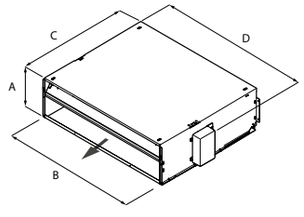
Technical data

VED_I			30			40			130			140			230			240			330			340		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1)	kPa	9,0	7,0	3,0	12,0	10,0	4,0	26,0	22,0	13,0	18,0	16,0	9,0	37,0	30,0	27,0	32,0	26,0	18,0	16,0	13,0	9,0	32,0	28,0	22,0
Heating capacity (45°C)	(2)	kW	1,83	1,67	0,90	1,94	1,77	1,17	3,12	2,90	2,18	3,27	3,02	2,24	3,56	3,23	2,66	3,93	3,55	2,88	5,22	4,64	3,88	5,44	4,98	3,98
Water flow rate	(2)	l/h	318	291	157	338	308	204	543	504	380	568	526	390	618	561	462	683	616	501	907	807	674	945	865	718
Pressure drops	(2)	kPa	9,0	7,5	2,5	12,5	10,5	5,0	27,5	24,0	14,5	18,5	16,0	9,5	36,0	29,0	26,0	32,0	26,5	18,1	16,5	13,5	10,0	23,0	19,5	13,0
Cooling Performance																										
Total cooling capacity	(3)	kW	1,58	1,42	0,98	1,86	1,69	1,11	2,95	2,76	2,06	3,25	3,02	2,25	3,37	3,09	2,57	3,97	3,59	2,88	4,91	4,36	3,62	5,27	4,72	3,95
Sensible cooling capacity	(3)	kW	1,20	1,08	0,74	1,31	1,20	0,80	2,05	1,91	1,42	2,32	2,16	1,59	2,65	2,40	1,98	2,96	2,67	2,18	3,64	3,27	2,77	3,90	3,51	2,92
Cooling capacity (latent)	(3)	kW	0,38	0,34	0,24	0,55	0,49	0,31	0,90	0,85	0,64	0,93	0,86	0,66	0,72	0,69	0,59	1,01	0,92	0,70	1,27	1,09	0,85	1,37	1,21	1,03
Water flow rate	(3)	l/h	279	250	170	327	296	193	515	480	358	566	525	390	588	538	445	691	624	499	860	760	633	922	824	685
Pressure drops	(3)	kPa	8,6	7,2	3,2	14,3	11,9	5,4	31,4	27,2	15,3	23,2	20,0	11,0	43,6	36,0	24,9	36,8	30,7	15,7	18,2	14,2	9,9	25,6	21,2	15,8
Fans																										
Fan - Centrifugal		n°	1			1			2			2			2			2			3			3		
Air flow rate		m³/h	285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure		Pa	61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	78	29	12	36	29	12	45	33	17	45	33	17	53	40	24	53	40	24	86	60	35	86	60	35
Max. input current		A	0,33			0,33			0,41			0,41			0,58			0,58			0,66			0,66		
Signal 0-10V		%	90	80	54	54	80	90	90	82	58	90	82	58	90	80	66	90	80	62	66	78	62	90	84	66
Power supply			230V~50Hz																							

H max. speed; **M** med.speed; **L** min.speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensional data (mm)

VED_I		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Net weight	Kg	20	21	23	24	29.5	32	32.5	34



Cod.: SVEDI030_340UY.05 / 1712

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VED__I

Fan coil unit with Brushless Inverter motor (EC) for ducted systems
Cooling capacities 8÷10kW

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Check ongoing validity of certificate online: www.eurovent-certification.com

INVERTER TECHNOLOGY

Variable Multi Flow

VMF



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 –2 ROW HEATING ONLY COIL**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **CENTRIFUGAL FANS INVERTER**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

Configuration fields:

1 2 3	4	5	6	7
Code	Size	Main Coil	Main coil only hot	Inverter motor

Example:

1 2 3	4	5	6	7
VED	**5**	**3**	**2**	**I**

Characteristics

- Ducted air conditioning terminal unit
- Internal installation
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Versions for systems with 4 pipes with main coil with 3 or 4 rows and heating only coil with 1 or 2 rows
- Reversibility of the hydraulic connection in the installation phase
- Low pressure drop in the heat exchange coils
- 3-way valves accessories
- 2-way valves accessories for systems with variable water flow rate
- Centrifugal fans with motor inverter
- Wide range of useful static pressure
- Centrifugal fans in antistatic plastic. Due to their features, they allow to reduce the energy consumption with respect to normal fans
- Fans with wing-shaped profile studied to obtain high flow rate and static pressure performance and low noise emission at the same time
- Compatible with the VMF system
- Wide range of controls
- Wide range of accessories to satisfy all system requirements
- Rectangular flow flange already integrated into the framework
- Class G3 air filter with easy extraction and cleaning
- Internal insulation in Class 1 fire resistance
- IP20 protection rating
- Plastic augers, extractable for easy and efficient cleaning
- Easy installation and maintenance
- Full respect of the accident-prevention standards

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels

- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m.

VMF system

- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18**: Thermostat for serial communication
- **VMF-SW**: water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Valve kit

- **VCF4_C**: **Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4_H**: **Kit made up from motorised 3-way valves**, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- **VCF25C: Kit made up from motorised 2-way valves**, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Ducting Accessories:

- **MZC**: Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid

- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED_I	530	532	540	541	730	732	740	741
Probes and accessories for control panels								
WMT21	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21							
VMF System								
VMF-E18	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Water valves								
3 way valve kit								
VCF45C	•	•	•	•				
VCF47C					•	•	•	•
3 way valve kit for heating coil only								
VCF45H		•		•				
VCF47H						•		•
2 way valve kit								
VCF25C	•	•	•	•	•	•	•	•
2 way valve kit for heating coil only								
VCF25H		•		•		•		•
Combined adjustment and balancing valve independent of pressure*								
VJP150/150M (1)	•	•	•	•				•
VJP270M (1)					•	•	•	•
Plenum for duct installation								
MZC5040	•	•	•	•				
MZC7050					•	•	•	•
RDA 450 V	•	•	•	•				
RDA 670 V					•	•	•	•
RPA 450 V	•	•	•	•				
RPA 670 V					•	•	•	•
PA 450 V	•	•	•	•				
PA 670 V					•	•	•	•
RPM 450 V	•	•	•	•				
RPM 670 V					•	•	•	•
PM 450 V	•	•	•	•				
PM 670 V					•	•	•	•
KFV	•	•	•	•	•	•	•	•

For more details on the control panels, VMF system MZC refer to the dedicated sheet.
(1) VJP090M-VJP150M-VJP270M are 24V
*** VJP/VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**

Technical data

VED_I			530			540			730			740		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	17,57	16,47	13,80	19,91	18,59	15,38	29,00	25,36	21,18	31,71	27,65	22,88
Water flow rate	(1)	l/h	1541	1444	1210	1746	1630	1349	2543	2224	1857	2781	2425	2007
Pressure drops	(1)	kPa	21,0	18,0	13,0	29,0	25,0	18,0	67,0	55,0	38,0	46,0	36,0	26,0
Heating capacity (45°C)	(2)	kW	8,74	8,19	6,86	9,90	9,24	7,65	14,22	12,61	10,53	15,81	13,75	11,34
Water flow rate	(2)	l/h	1503	1409	1180	1703	1589	1316	2446	2169	1811	2719	2365	1950
Pressure drops	(2)	kPa	20,5	18,5	13,5	29,5	25,0	21,0	65,5	51,5	37,5	45,5	35,5	25,5
Cooling Performance														
Total cooling capacity	(3)	kW	7,39	7,25	6,05	8,70	8,40	7,31	13,48	11,96	10,25	15,71	13,99	11,81
Sensible cooling capacity	(3)	kW	6,02	5,57	4,61	6,18	5,99	4,93	11,07	9,75	8,33	10,95	9,73	8,19
Cooling capacity (latent)	(3)	kW	1,37	1,68	1,44	2,52	2,41	2,38	2,41	2,21	1,92	4,76	4,26	3,62
Water flow rate	(3)	l/h	1271	1247	1041	1496	1445	1257	2319	2057	1763	2702	2406	2031
Pressure drops	(3)	kPa	21,0	19,0	12,0	28,0	25,0	19,0	58,0	46,0	35,0	45,0	37,0	27,0
Fans														
Fan - Centrifugal		n°		2			2			3			3	
Air flow rate		m³/h	1520	1400	1120	1500	1380	1100	2410	2040	1640	2358	2000	1600
High static pressure		Pa	58	50	32	56	50	32	69	50	32	69	50	32
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	62	59	53	62	59	53	68	66	62	68	66	62
Sound power level (outlet)		dB(A)	58	55	49	58	55	49	64	62	58	64	62	58
Diameter connections														
Standard coil		Ø		3/4"			3/4"			3/4"			3/4"	
Additional coil		Ø		/			/			/			/	
Electrical Features														
Absorbed power		W	205	160	115	205	160	115	370	241	147	370	241	147
Signal 0-10V		%	62	76	66	90	76	62	90	76	62	90	76	62
Power supply			230V~50Hz											

VED_I			541			741		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance								
4 pipe configuration								
Heating capacity (65°C)	(4)	kW	7,90	7,62	6,70	12,96	11,88	10,57
Water flow rate	(4)	l/h	692	666	584	1133	1040	925
Pressure drops	(4)	kPa	26,0	24,0	19,0	25,0	21,0	17,0
Cooling Performance								
Total cooling capacity	(3)	kW	8,97	8,54	7,43	16,08	14,23	11,96
Sensible cooling capacity	(3)	kW	6,45	6,13	5,04	11,32	9,97	8,34
Cooling capacity (latent)	(3)	kW	2,52	2,41	2,39	4,76	4,26	3,62
Water flow rate	(3)	l/h	1543	1469	1278	2766	2448	2057
Pressure drops	(3)	kPa	29,0	27,0	21,0	45,5	36,5	27,0
Fan								
Fan - Centrifugal		n°		2			3	
Air flow rate		m³/h	1460	1360	1060	2350	2000	1600
High static pressure		Pa	56	50	32	69	50	32
Sound data								
Sound power level (inle+radiator)	(5)	dB(A)	62	59	53	68	66	62
Sound power level (outlet)		dB(A)	58	55	49	64	62	58
Diameter connections								
Standard coil		Ø		3/4"			3/4"	
Additional coil		Ø		1/2"			1/2"	
Electrical Features								
Absorbed power		W	185	163	106	363	240	138
Signal 0-10V		%	66	84	90	64	78	90
Power supply			230V~50Hz					

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

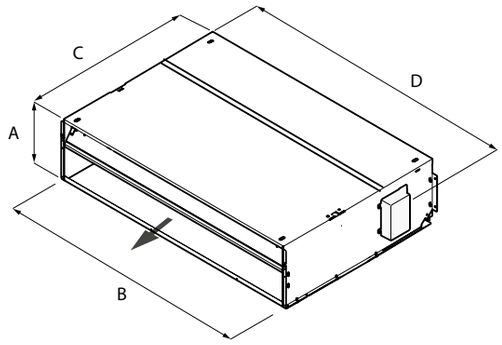
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensional data (mm)



VED_I		530	532	540	541	730	732	740	741
A	mm	300	300	300	300	351	351	351	351
B	mm	1133	1133	1133	1133	1533	1533	1533	1533
C	mm	737	737	737	737	789	789	789	789
D	mm	1158	1158	1158	1158	1558	1558	1558	1558
Weight	Kg	42	47	44	47	58	58	61	61

Cod.: SVEDI530_741UY.06/ 1712

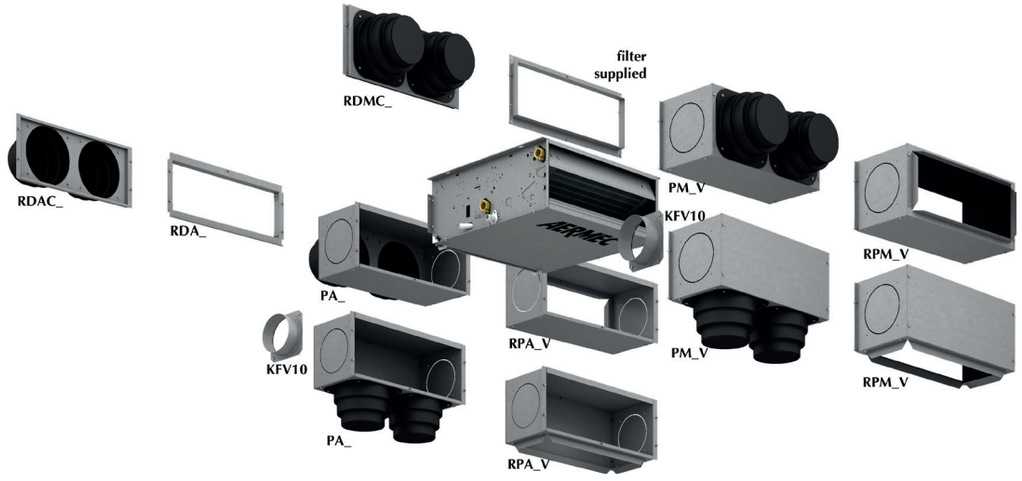
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VES

Fan coil unit
For ducted installations
Cooling capacity from 1,82 to 5,70kW
Heating capacity from 1,25 to 10,95kW

Variable Multi Flow
VMF



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **HEAT ESCHANGER DEVELOPED TO OPTIMIZE THE PERFORMANCE SENSITIVE**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**

Features

Ducted fan coil, for heating, cooling and dehumidifying, specific to work in sensible environment.
The fan unit at available working pressures, trought internal insulation, ensure excellent acoustic comfort levels.
The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.
The main coil, reversible during installation, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

- Main standard coil or increased for 2-pipe systems
- Main standard coil and additional heating coil (accessory) for 4-pipe system
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe,
  2 pipe + Plasmacluster, 2 pipe + UV lamps,
  2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil

- **BV**: Single row hot water heat exchanger. Not available for versions with Plasmacluster.

Valve kit

- **VCZ_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF**: **kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD: Kit consisting of powered 2-way valve,** copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Accessory for Installation

- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **PA**: Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- **PA-F**: Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- **PM**: Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- **RD**: Straight flow fitting for ducting.
- **RDA**: Straight intake fitting for ducting.
- **RP**: 90° flow fitting for ducting
- **RPA**: 90° intake fitting for ducting.

DUCTING ACCESSORIES

- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid

- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VES		030	040	130	140	230	240	330	340
Probes and accessories for control panels									
KTLP		•	•	•	•	•	•	•	•
PX-PX2-PX2C6	(1)	•	•	•	•	•	•	•	•
PXAE		•	•	•	•	•	•	•	•
PXAR		•	•	•	•	•	•	•	•
TPF		•	•	•	•	•	•	•	•
WMT05-06-10		•	•	•	•	•	•	•	•
FMT10		•	•	•	•	•	•	•	•
FMT21		•	•	•	•	•	•	•	•
SWA		In combination with FMT21							
SW3		In combination with PXAE or PXAR							
SIT3		In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05*-06-10							
SIT5		In combination with FMT21 or PXAE or PXAR							
VMF System									
VMF-E0		•	•	•	•	•	•	•	•
VMF-E1		•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•
Additional coil (heating only)									
BV030		•							
BV130				•					
BV230						•			
BV162								•	
Water valves *									
Valve Kit for 4 pipe systems with Main coil									
VCF3X4L-R		•	•	•	•	•	•	•	•
3 way valve kit									
VCF43/4324	(2)	•	•	•		•		•	•
VCF43S/4324S	(2)				•		•		
2 way valve kit									
VCFD3/324	(2)	•	•	•	•	•	•	•	•

For more details on the control panels and VMF system refer to the dedicated sheet.
* WMT05 is not available with additional coil (heating only) BV
(1) **Only for wall installation;** (PX2C6 panel PX2 in multiple 6 pz.)
(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V
(3) DSC4 It's not available with AMP - BC -VMF system

Accessories

VES		030	040	130	140	230	240	330	340
3 way valve kit for heating coil only									
VCF45/4524		•		•		•		•	
2 way valve kit for heating coil only									
VCFD4/424		•		•		•		•	
Combined adjustment and balancing valve independent of pressure**									
VJP060/060M	(2)	•	•	•	•				
VJP090/090M	(2)					•	•		
VJP150/150M	(2)							•	•
Accessories for installation									
AMP		•	•	•	•	•	•	•	•
DSC4	(3)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
Auxiliary condensate drip tray									
BC4	(4)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•
Grille									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(5)	•	•						
SE30X	(5)			•	•				
SE40X	(5)					•	•		
SE80X	(5)							•	•
Plenum for duct installation									
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(6)	•	•						
RPA100V	(6)			•	•				
RPA200V	(6)					•	•		
RPA300V	(6)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(6)	•	•						
PA100V	(6)			•	•				
PA200V	(6)					•	•		
PA300V	(6)							•	•
PM000V	(6)	•	•						
PM100V	(6)			•	•				
PM200V	(6)					•	•		
PM300V	(6)							•	•
RPM000V	(6)	•	•						
RPM100V	(6)			•	•				
RPM200V	(6)					•	•		
RPM300V	(6)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

** **VJP / VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(3) DSC4 It's not available with AMP - BC -VMF system

(4) For vertical installation. BC4 is not available whith valve VCZ-VCZD / VCF-VCFD

(5) The accessory SE require pairing with ZX

(6) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

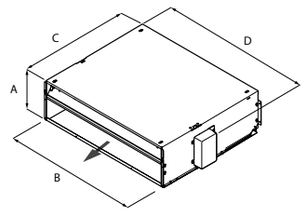
Technical data

VES			30			40			130			140			230			240			330			340		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1)	kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22
Heating capacity (50°C)	(2)	kW	2,22	2,03	1,09	2,36	2,15	1,42	3,79	3,52	2,65	3,96	3,67	2,72	4,31	3,92	3,22	4,77	4,30	3,49	6,33	5,63	4,71	6,60	6,04	5,01
Water flow rate	(2)	l/h	383	350	189	406	370	245	660	612	461	682	632	469	743	674	555	820	741	602	1090	969	810	1136	1039	862
Pressure drops	(2)	kPa	13	10	4	17	14	6	39	34	20	25	22	13	54	44	39	48	38	26	22	18	13	45	39	32
Cooling Performance																										
Total cooling capacity	(3)	kW	1,91	1,75	1,25	2,75	1,89	1,30	3,11	2,87	2,20	3,30	3,08	2,43	3,95	3,57	2,85	4,08	3,76	3,40	5,36	4,82	4,00	5,71	5,12	4,46
Sensible cooling capacity	(3)	kW	1,36	1,24	0,88	1,46	1,32	0,86	2,34	2,17	1,59	2,38	2,21	1,68	2,90	2,62	2,13	3,01	2,73	2,35	3,85	3,44	2,85	4,09	3,66	3,18
Water flow rate	(3)	l/h	330	302	215	360	325	224	535	496	379	569	530	419	679	614	491	702	646	584	922	829	689	982	880	768
Pressure drops	(3)	kPa	24	21	11	36	30	15	56	49	30	29	25	17	101	85	57	56	48	40	30	25	18	50	41	32
Total cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Sensible cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Water flow rate	(4)	l/h	151	138	98	136	88	57	244	228	173	262	242	192	309	283	225	333	300	270	445	397	349	461	416	354
Pressure drops	(4)	kPa	4	4	2	5	2	1	10	9	5	5	4	3	18	15	10	9	7	6	6	4	3	8	6	5
Fans																										
Centrifugal Fan		n°	1			1			2			2			2			2			3			3		
Air flow rate		m³/h	285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure		Pa	61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	59	38	23	58	38	23	76	53	34	75	52	34	93	57	43	92	57	43	104	75	63	103	74	63
Max. input current		A	0,37			0,37			0,41			0,41			0,58			0,58			0,66			0,66		
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V3	V1	V6	V3	V1	V7	V3	V1	V7	V3	V1
Power supply			230V~50Hz																							

H velocità massima; **M** velocità media; **L** velocità minima
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 13°C/18°C
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensions and weight

VES		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D*	mm	576	576	807	807	1027	1027	1148	1148
Weight	Kg	22	24	25	33	33	34	35	34



* maximum dimensions

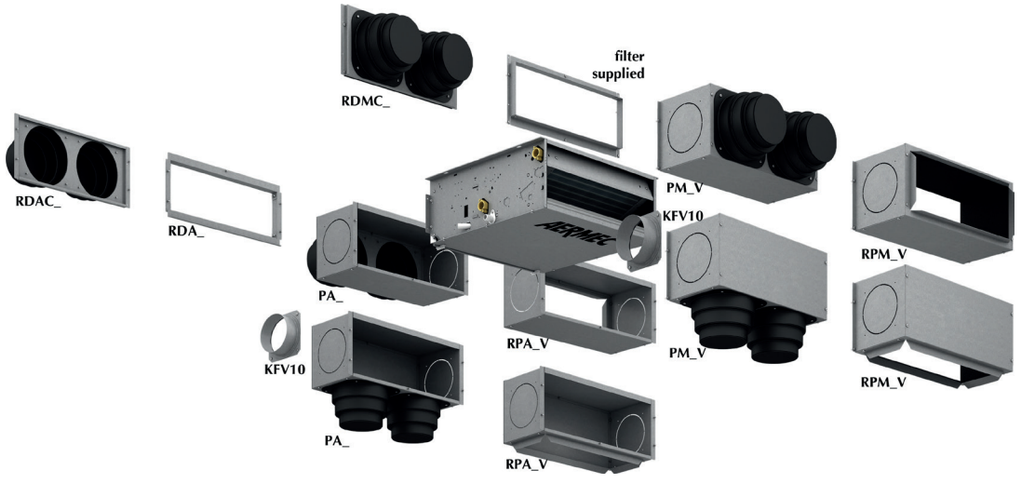
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VES__I

Fan coil unit with Inverter brushless motor
For ducted installations
Cooling capacity from 1.25 to 5.70kW
Heating capacity from 1.09 to 10.9kW



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **HEAT ESCHANGER DEVELOPED TO OPTIMIZE THE PERFORMANCE SENSITIVE**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**

Features

Ducted fan coil with inverter technology, for heating, cooling and dehumidifying, specific to work in sensible environment.
Equipped with inverter Brushless motor for an high effciency and a continuos air flow rate modulation in order to increased comfort and guarantee electric saving. The inverter motor allows a better air temperature regulation based on the real indoor environement requirements without swinging temperature.
The fan unit at available working pressures, trought internal insulation, ensure excellent acoustic comfort levels.
The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.

The main coil, reversible during installation, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

- Main standard coil or increased for 2-pipe systems
- Main standard coil and additional heating coil (accessory) for 4-pipe system
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

Accessories

Control panel
A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessories for control panels
- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m.

VMF system
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18**: Thermostat for serial communication
- **VMF-SW**: water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

Hot water coil
- **BV**: Single row hot water heat exchanger.

Valve kit
- **VCF_X4**: **Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating"** circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCF4_C**: **Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4_H**: **Kit made up from motorised 3-way valves**, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- **VCF25C: Kit made up from motorised 2-way valves**, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

Accessory for Installation
- **AMP**: kit for the wall mounting installation.
- **BC**: Auxiliary condensate drip tray.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.

Ducting Accessories:
- **MZC:** Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10**: Circular flanges kit for intake/discharge plenum.

Grid
- **GA**: Intake grid with fixed louvers.
- **GAF**: Intake grid with fixed louvers with filter.
- **GM**: Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VES_I		030	040	130	140	230	240	330	340
Probes and accessories for control panels									
WMT21		•	•	•	•	•	•	•	•
SWAI		In combination with WMT21							
VMF System									
VMF-E18		•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•
Additional coil (heating only)									
BV030		•							
BV130				•					
BV230						•			
BV162								•	
Water valves									
Valve Kit for 4 pipe systems with Main coil									
VCF3X4L-R		•	•	•	•	•	•	•	•
3 way valve kit									
VCF43/4324	(1)	•	•	•	•	•	•	•	•
2 way valve kit									
VCFD3/324	(1)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only									
VCF45/4524		•		•		•		•	
2 way valve kit for heating coil only									
VCFD4/424		•		•		•		•	
Combined adjustment and balancing valve independent of pressure									
VJP060/060M	(1)	•	•	•	•				
VJP090/090M	(1)					•	•		
VJP150/150M	(1)							•	•
Accessories for installation									
AMP		•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
Auxiliary condensate drip tray									
BC4	(3)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•

*** VJP / VJP_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**
For more details on the control panels and VMF system refer to the dedicated sheet.
(1) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V
(2) DSC4 It's not available with AMP - BC -VMF system.
(3) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

Accessory

VES_I		030	040	130	140	230	240	330	340
Grille									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(4)	•	•						
SE30X	(4)			•	•				
SE40X	(4)					•	•		
SE80X	(4)							•	•
Plenum for duct installation									
MZC220		•	•						
MZC320				•	•				
MZC530						•	•		
MZC830								•	•
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(5)	•	•						
RPA100V	(5)			•	•				
RPA200V	(5)					•	•		
RPA300V	(5)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(5)	•	•						
PA100V	(5)			•	•				
PA200V	(5)					•	•		
PA300V	(5)							•	•
PM000V	(5)	•	•						
PM100V	(5)			•	•				
PM200V	(5)					•	•		
PM300V	(5)							•	•
RPM000V	(5)	•	•						
RPM100V	(5)			•	•				
RPM200V	(5)					•	•		
RPM300V	(5)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

(4) The accessory SE require pairing with ZX

(5) All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

Technical data

VES_I			30			40			130			140			230			240			330			340		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1)	kPa	9,0	7,0	3,0	12,0	10,0	4,0	26,0	22,0	13,0	18,0	16,0	9,0	37,0	30,0	27,0	32,0	26,0	18,0	16,0	13,0	9,0	32,0	28,0	22,0
Heating capacity (50°C)	(2)	kW	1,83	1,67	0,92	1,94	1,78	1,18	3,14	2,90	2,19	3,30	3,02	2,25	5,56	3,23	2,65	3,93	3,55	2,88	5,22	4,64	3,88	5,45	4,98	4,13
Water flow rate	(2)	l/h	383	350	189	406	370	245	660	612	461	682	632	469	743	674	555	820	741	602	1090	969	810	1136	1039	862
Pressure drops	(2)	kPa	9,0	7,5	2,5	12,5	10,5	5,0	27,5	24,0	14,5	18,5	16,0	10,0	39,0	32,5	23,0	32,0	26,5	18,5	16,5	13,5	10,0	30,3	19,5	18,5
Cooling Performance																										
Total cooling capacity	(3)	kW	1,91	1,75	1,26	2,00	1,89	1,30	3,12	2,87	2,20	3,31	3,10	2,43	3,95	3,56	2,84	4,10	3,37	3,39	5,24	4,81	3,99	5,71	5,12	4,46
Sensible cooling capacity	(3)	kW	1,35	1,24	0,89	1,45	1,32	0,86	2,34	2,17	1,59	2,38	2,20	1,68	2,89	2,61	2,12	3,02	2,73	2,34	3,86	3,44	2,84	4,09	3,66	3,18
Cooling capacity (latent)	(3)	kW	0,56	0,51	0,37	0,55	0,57	0,44	0,78	0,70	0,61	0,93	0,90	0,75	1,06	0,95	0,72	1,08	0,64	1,05	1,38	1,37	1,15	1,62	1,46	1,28
Water flow rate	(3)	l/h	151	138	98	136	88	57	244	228	173	262	242	192	309	283	225	333	300	270	445	397	349	461	416	354
Pressure drops	(3)	kPa	24,5	21,0	11,5	35,5	30,5	16,0	56,5	49,0	30,0	29,0	23,0	16,5	102,0	84,5	56,0	57,0	48,5	40,5	30,5	25,0	18,0	50,0	41,0	32,0
Total cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Sensible cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Water flow rate	(4)	l/h	151	138	98	136	88	57	244	228	173	262	242	192	309	283	225	333	300	270	445	397	349	461	416	354
Pressure drops	(4)	kPa	4	4	2	5	2	1	10	9	5	5	4	3	18	15	10	9	7	6	6	4	3	8	6	5
Fans																										
Fan (Centrifugal)		n°	1			1			2			2			2			2			3			3		
Air flow rate		m³/h	285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure		Pa	61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	36	29	12	36	29	12	45	33	17	45	33	17	53	40	24	53	40	24	86	60	35	86	60	35
Signal 0-10V		%	90	80	54	90	80	54	90	82	58	90	82	58	90	78	66	90	80	62	90	78	62	90	78	66
Power supply		V/ph/Hz	230V~50Hz																							

H velocità massima; **M** velocità media; **L** velocità minima

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

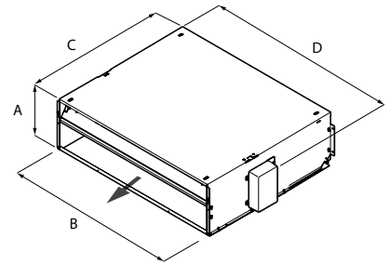
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 13°C/18°C

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensional data (mm)

VES_I		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Weight	Kg	20	21	23	24	29	32	32	34



Cod.: SVESI030_340US.07 /1712

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AERMEC

VES_I

Fan coil unit equipped with inverter Brushless motor
For ducted installations
Cooling capacity from 4,44 to 11,81 kW
Heating capacity from 9,91 to 25,37 kW

INVERTER TECHNOLOGY

Variable Multi Flow®

VMF



• HORIZONTAL OR VERTICAL INSTALLATION
• VERSIONS FOR 2/4 PIPE SYSTEMS
• LARGE RANGE OF AVAILABLE STATIC PRESSURE
• HEIGHT 217mm (SLIM LINE)

Features

Ducted fan coil with inverter technology, for heating, cooling and dehumidifying, specific to work in sensible environment.
Equipped with inverter Brushless motor for an high effciency and a continuos air flow rate modulation in order to increased comfort and guarantee electric saving. The inverter motor allows a better air temperature regulation based on the real indoor environement requirements without swinging temperature.
The fan unit at available working pressures, trought internal insulation, ensure excellent acoustic comfort levels.
The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.

The main coil, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

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- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirement

Campo	Code
1,2,3	VES
4	**Size**
	5 - 7
5	**Main coil**
	3 Standard
	4 Increased coil
6,7	**Coil only hot**
	00 without coil
	05 coil only heating power limited
	10 coil only heating
8	**Inverter motor**
	I Inverter

Technical data

VES_I			5300			5400			7300			7400		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	12,18	11,27	9,91	12,98	11,92	10,29	23,50	21,67	16,78	25,37	23,30	17,88
Water flow rate	(1)	l/h	1069	989	869	1139	1046	902	2061	1901	1472	2225	2044	1569
Pressure drops	(1)	kPa	32,0	26,0	22,0	16,0	14,0	11,0	47,0	40,0	23,0	33,0	28,0	18,0
Heating capacity (50°C)	(2)	kW	6,06	5,60	4,93	6,45	5,92	5,11	11,60	10,70	8,34	12,60	11,50	7,80
Water flow rate	(2)	l/h	1042	963	848	1109	1018	879	1995	1840	1434	2167	1978	1342
Pressure drops	(2)	kPa	32,0	28,0	22,0	16,0	13,5	10,0	46,0	40,0	25,0	33,0	28,0	13,8
Cooling Performance														
Total cooling capacity	(3)	kW	5,62	5,18	4,44	5,85	5,35	4,56	10,63	9,94	8,17	11,80	10,80	8,00
Sensible cooling capacity	(3)	kW	3,82	3,51	3,02	3,91	3,59	3,12	7,29	6,75	5,35	7,90	7,26	5,48
Cooling capacity (latent)	(3)	kW	1,80	1,67	1,42	1,94	1,76	1,44	3,34	3,19	2,82	3,90	3,54	2,52
Water flow rate	(3)	l/h	967	891	764	1006	920	784	1828	1710	1405	2030	1858	1376
Pressure drops	(3)	kPa	36,0	31,0	23,0	19,0	16,5	12,1	50,0	44,0	31,0	39,0	33,5	19,5
Fans														
Fan		type/n°	centrifugal/4			centrifugal/4			centrifugal/6			centrifugal/6		
Air flow rate		m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure		Pa	60	50	37	60	50	36	60	50	29	60	50	29
Sound data														
Sound power level (inle+radiator)	(4)	dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)		dB(A)	54	52	48	54	52	48	58	56	36	58	56	36
Diameter connections														
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/		
Electrical Features														
Absorbed power		W	72	53	38	72	53	38	153	120	59	153	120	59
Signal 0-10V		%	90	82	70	90	82	70	90	82	62	90	82	62
Power supply		V/ph/Hz	230V~50Hz											

VES_I			5305			5310			7305			7310		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
4 pipe configuration														
Heating capacity (70°C)	(1)	kW	4,15	3,91	3,55	7,07	6,64	5,95	5,24	4,94	4,06	9,56	9,01	7,54
Water flow rate	(1)	l/h	364	343	311	621	582	522	460	434	356	838	790	662
Pressure drops	(1)	kPa	9,0	8,0	6,0	7,0	6,0	5,0	10,0	9,0	6,0	17,0	14,0	11,0
Cooling Performance														
Total cooling capacity	(3)	kW	5,63	5,18	4,44	5,63	5,18	4,44	10,37	9,94	8,17	10,37	9,94	8,17
Sensible cooling capacity	(3)	kW	3,82	3,51	3,02	3,82	3,51	3,02	7,29	6,76	5,36	7,29	6,76	5,36
Cooling capacity (latent)	(3)	kW	1,81	1,67	1,42	1,81	1,67	1,42	3,08	3,18	2,81	3,08	3,18	2,81
Water flow rate	(3)	l/h	968	891	763	968	891	763	1830	1709	1406	1830	1709	1406
Pressure drops	(3)	kPa	36,0	31,0	23,0	36,0	31,0	23,0	49,0	44,0	31,0	49,0	44,0	31,0
Fans														
Fan		type/n°	centrifugal/4			centrifugal/4			centrifugal/6			centrifugal/6		
Air flow rate		m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure		Pa	60	50	37	60	50	37	60	50	29	60	50	29
Sound data														
Sound power level (inle+radiator)	(4)	dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)		dB(A)	50	48	44	50	48	44	54	52	32	54	52	32
Diameter connections														
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	72	53	38	72	53	38	153	120	66	153	120	66
Signal 0-10V		%	90	84	66	90	84	66	90	76	62	90	78	64
Power supply		V/ph/Hz	230V~50Hz											

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

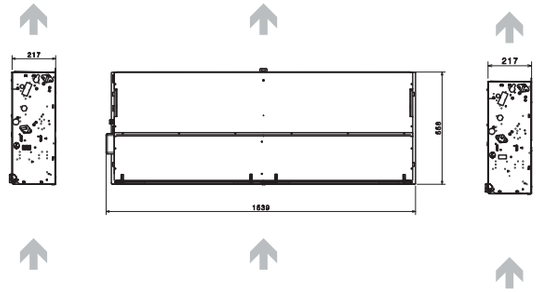
(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

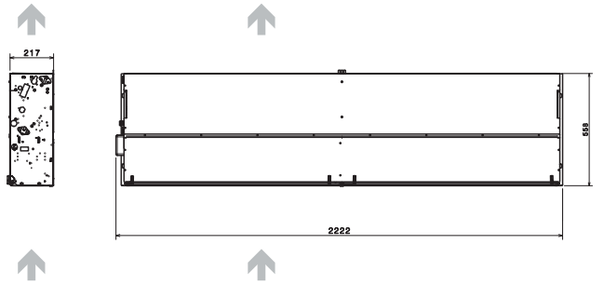
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensions (mm)

VES: 5300I - 5305I - 5310I - 5400I



VES: 7300I - 7305I - 7310I - 7400I



VES_I		5300	5305	5310	5400	7300	7305	7310	7400
Weight	kg	46	47	47	47	65	68	68	68

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VEC

Cassette type fancoil Coanda-effect Installation in false ceilingsInstallation in false ceilings

Variable Multi Flow

VMF

Aermec
participate in the EUROVENT program: FCH
the products are present on the site
www.eurovent-certification.com



Features

VEC: Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.
- Installation in false ceilings
- Compatible with VMF System
- Grille with suction and adjustable delivery vents with Coanda effect (compulsory accessory).
- 3-row coil
- Reduced pressure drops across heat exchangers
- For systems with fixed and variable delivery
- EUROVENT certified
- 3-speed fan unit
- Quiet operation
- Motors with permanently connected condensers
- Air filter easily removed and cleaned
- Internal insulation and air filter of Class 1 fire resistance
- Removable shrouds for easy, effective cleaning
- Reversibility of the water connections during installation
- Broad range of controls and accessories
- Easy installation and maintenance
- Full compliance with safety regulations
- For possible heat mode functioning, refer to the technical manual notes.

Accessoires

Compulsory accessories:
the following are essential for the functioning of the units:
- **VEC_GL**: air suction and delivery grille with adjustable Coanda-effect vents. White RAL 9010.

Accessories:
- **AMP**: kit for wall-mounting installation.
- **BC5**: auxiliary condensate drain tray.
- **BV**: Single row hot water coil.
- **DSC4**: condensate drainage device for use when natural run-off is not possible.
- **SIT 3-5**: thermostat interface cards. These allow you to create a network of fan coils (max. 10), commanded from a centralised panel (selector or thermostat).
  SIT3: commands the 3 fan speeds, and must be installed on each fan coil in the network; receives the commands from the selector or SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (4-pipe systems); conveys the thermostat commands to the fan coil network.
- **SW3**: water temperature probe, allowing the implementation of automatic season changeover for those electronic thermostats equipped with water side changeover.
- **SWA:** SWA external probe accessory (length L = 6m). Detects the ambient air temperature if connected to the connector (A) of the panel FMT21; in this case the ambient air temperature probe built into the panel will be automatically disabled. Detects the temperature of the water in the system to allow ventilation consent if connected to the connector (W) of the panel FMT21. Two SWA probes may be simultaneously connected to the panel FMT21.
- **VCF**: kit consisting of a 3-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of a 2-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **Control panel and VMF system**: the features of the control panels are described in the relevant card.

Accessoires for heating mode
- **RX**: Armoured electric coil with safety thermostat. (Requires a thermostat with heater management).
- **PXAR:** Electronic thermostat with thermostated or continuous ventilation.
- **PCR1:** Galvanised plate protection for the controls and the electrical element
- **BV**: Single row hot water coil.
- **VCF**: the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. For 3-row.
- **VCFD**: Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row

VEC (Standard coil)		20	30	40	50
VEC (increased coil)		24	34	44	54
Compulsory accessoires					
VEC20GL		•			
VEC30GL			•		
VEC40GL				•	•
BC5		•	•	•	•
DSC4	(1)	•	•	•	•
SIT3		•	•	•	•
SIT5		•	•	•	•
SW3		•	•	•	•
SWA		•	•	•	•
VCF41 (standard coil)		41	41	42	42
VCF42 (increased coil)		42	42	42	42
VCF4124 (standard coil)		4124	4124	4224	4224
VCF4224 (increased coil)		4224	4224	4224	4224
VCFD1 (standard coil)		•	•		
VCFD2 (increased coil)		•	•	•	•
VCFD124 (standard coil)		•	•		

VEC (Standard coil)	20	30	40	50
VEC (increased coil)	24	34	44	54
VCFD224 (increased coil)	•	•	•	•
Control panel				
FMT10	•	•	•	•
FMT21	•	•	•	•
KTLP	•	•	•	•
PX2	•	•	•	•
PX2C6*	•	•	•	•
PX	•	•	•	•
PXAE	•	•	•	•
TPF	•	•	•	•
TF1	•	•	•	•
WMT05	•	•	•	•
WMT06	•	•	•	•
WMT10	•	•	•	•
VMF-System				
VMF-E4 / E4D	•	•	•	•
VMF-E0 / E1	•	•	•	•
VMF-E5B / E5N	•	•	•	•

VEC (Standard coil)		20	30	40	50
VEC (increased coil)		24	34	44	54
VMF-SW		•	•	•	•
VMF-SW1		•	•	•	•
Accessoires for heating mode					
RX22	(2)	•			
RX32	(2)		•		
RX42	(2)			•	
RX52	(2)				•
PXAR	(2)	•	•	•	•
PCR1	(2)	•	•	•	•
BV122	(2)(3)	•			
BV132	(2)(3)		•		
BV142	(2)(3)			•	•
VCF44	(2)(4)	•	•	•	•
VCF4424	(2)(4)	•	•	•	•
VCFD4	(2)(4)	•	•	•	•
VCFD424	(2)(4)	•	•	•	•

(1) DSC4 The accessory is not compatible with the basins BC5, and VMF system.
(2) For the Heating mode read the notes and warnings in the technical booklet.
(3) Available only unit 20 - 30 - 40 - 50
(4) Accessoires only for coil additioning (BV)
PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation

Technical data

VEC			20			24			30			34			40			44			50			54		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,10	2,54	1,87	3,42	2,50	2,07	4,31	3,64	3,03	6,14	5,18	4,31	6,29	5,21	4,21	8,07	6,68	5,41	7,16	6,34	4,76	9,18	8,08	6,06
Water flow rate	(1)	l/h	272	223	164	300	219	181	378	319	266	538	454	378	551	457	369	708	586	474	628	556	417	805	709	532
Pressure drops	(1)	kPa	6,0	4,0	2,0	3,0	2,0	1,0	17,0	13,0	9,0	9,0	7,0	5,0	12,0	9,0	6,0	19,0	14,0	9,0	14,0	11,0	7,0	19,0	15,0	9,0
Heating capacity (45°C)	(2)	kW	1,54	1,27	0,93	1,70	1,40	1,27	2,32	1,81	1,50	3,05	2,57	2,15	3,13	2,59	2,09	4,02	3,32	2,69	3,56	3,15	2,37	4,57	4,02	3,02
Water flow rate	(2)	l/h	268	220	161	541	389	295	203	171	152	530	447	372	543	450	363	697	577	467	618	547	411	792	697	523
Pressure drops	(2)	kPa	6,0	4,0	2,0	3,7	2,5	1,5	9,5	7,0	6,0	9,0	7,0	5,0	12,0	9,0	6,0	19,0	13,0	9,0	14,0	11,0	7,0	18,0	15,0	9,0
Cooling Performance																										
Total cooling capacity	(3)	kW	1,86	1,44	0,86	1,50	1,20	0,86	1,91	1,61	1,35	2,47	2,14	1,79	2,99	2,47	1,99	3,91	3,34	2,55	3,61	3,17	2,35	4,28	4,00	3,00
Sensible cooling capacity	(3)	kW	1,48	1,22	0,65	1,13	0,89	0,65	1,49	1,25	1,03	1,78	1,51	1,26	2,41	1,98	1,58	2,74	2,42	1,91	2,59	2,27	1,68	2,91	2,44	1,79
Cooling capacity (latent)	(3)	l/h	227	187	138	516	387	308	476	358	284	425	368	308	513	425	341	672	574	439	621	545	404	737	688	515
Water flow rate	(3)	kPa	5,0	3,0	2,0	3,0	2,0	1,2	13,0	8,0	5,0	8,0	6,0	5,0	11,0	8,0	5,0	22,0	17,0	10,0	15,0	12,0	7,0	30,0	27,0	16,0
Pressure drops	(3)	kPa	5,0	3,0	2,0	3,0	2,0	1,2	13,0	8,0	5,0	8,0	6,0	5,0	11,0	8,0	5,0	22,0	17,0	10,0	15,0	12,0	7,0	30,0	27,0	16,0
Fans																										
Fan - Centrifugal		n°	1			1			2			2			2			2			2			2		
Air flow rate		m³/h	247	194	130	247	167	130	383	309	241	383	309	241	511	406	306	511	406	306	613	529	371	613	529	371
Sound data																										
Sound power level	(4)	dB(A)	48	42	35	48	39	35	49	43	37	49	43	37	57	43	30	57	43	30	67	46	34	67	46	34
Sound pressure level		dB(A)	40	34	27	40	31	27	41	35	29	41	35	29	49	35	22	49	35	22	59	38	26	59	38	26
Diameter connections																										
Standard coil		Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Electrical Features																										
Absorbed power		W	25	22	19	25	22	19	44	33	25	44	33	25	57	43	30	57	43	30	67	46	34	67	46	34
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V4	V2	V1	V3	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1
Power supply			230V~50Hz																							

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

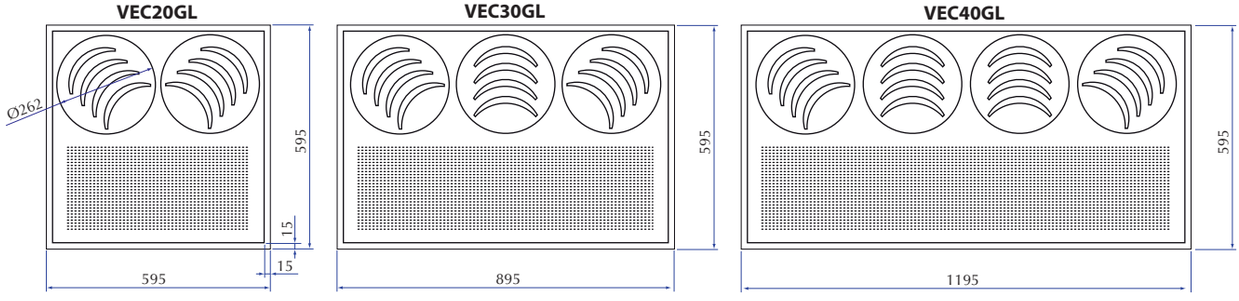
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

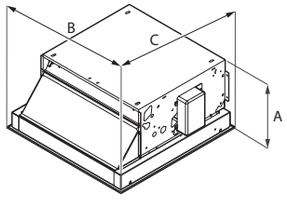
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

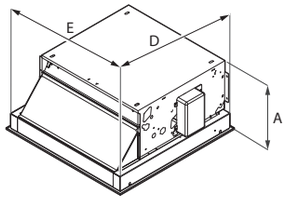
Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions (mm)

VEC_GL (Compulsory accessory)







Dimensions VEC + VEC_GL (maximum dimensions)

Mod.	VEC VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
B	mm	595	895	1195	1195
C	mm	595	595	595	595
Weight (VEC)	kg	15,5	20,6	24,7	24,7
Weight (VEC_GL)	kg	3,7	5,7	7	7

Dimensions VEC + VEC_GL (Dimensions for installation)

Mod.	VEC VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
D	mm	574	574	574	574
E	mm	574	874	1174	174

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Cod.: SVECUY.07 / 1712

VEC_I

Cassette type fancoil Coanda-effect, with Brushless Inverter motor (EC) Installation in false ceilings

Aermec
participate in the EUROVENT program: FCH
the products are present on the site
www.eurovent-certification.com

VMF



Features

VEC_I: Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.
- Installation in false ceilings
- Compatible with VMF System
- Grille with suction and adjustable delivery vents with Coanda effect (compulsory accessory).
- Unit with standard coil (20÷50)
- Unit with increased coil (24÷54)
- Reduced pressure drops across heat exchangers
- For systems with fixed and variable delivery
- Fan unit with Brushless motor (continuous 0-100% speed variation)
- Quiet operation
- Air filter easily removed and cleaned
- Internal insulation and air filter of Class 1 fire resistance
- Reversibility of the water connections during installation
- Broad range of controls and accessories
- Easy installation and maintenance
- Full compliance with safety regulations
- For possible heat mode functioning, refer to the technical manual notes.

Accessori

Compulsory accessories:
the following are essential for the functioning of the units:
- **VEC_GL**: air suction and delivery grille with adjustable Coanda-effect vents.
  White RAL 9010.

Accessories:
- **BC5**: auxiliary condensate drain tray.
- **BV**: Single row hot water coil.
- **DSC4**: condensate drainage device for use when natural run-off is not possible.
- **VCF**: kit consisting of a 3-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of a 2-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **Control panel and VMF System**: the characteristics are described on the appropriate card.

Accessories for heating mode
- **BV**: Single row hot water coil.
- **VCF**: the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row. Versions with 230V and 24V~50Hz power supply.

VEC_I (standard coil)	20	30	40	50
VEC_I (increased coil)	24	34	44	54
Compulsory accessories				
VEC20GL	•			
VEC30GL		•		
VEC40GL			•	•
BC5	•	•	•	•
DSC4 (1)	•	•	•	•
VCF41 (standard coil)	•	•		
VCF42 (increased coil)	•	•	•	•
VCF4124 (standard coil)	•	•		
VCF4224 (increased coil)	•	•	•	•

VEC_I (standard coil)	20	30	40	50
VEC_I (increased coil)	24	34	44	54
VCFD1 (standard coil)	•	•		
VCFD2 (increased coil)	•	•	•	•
VCFD124 (standard coil)	•	•		
VCFD224 (increased coil)	•	•	•	•
Control panel				
WMT20	•	•	•	•
VMF-System				
VMF-E4 / E4D	•	•	•	•
VMF-E18	•	•	•	•
VMF-E5B / E5N	•	•	•	•

VEC_I (standard coil)		20	30	40	50
VEC_I (increased coil)		24	34	44	54
VMF-SW		•	•	•	•
VMF-SW1		•	•	•	•
Accessory dedicated to heating mode					
BV122	(2)(3)	•			
BV132	(2)(3)		•		
BV142	(2)(3)			•	•
VCF44	(2)(4)	•	•	•	•
VCF4424	(2)(4)	•	•	•	•
VCFD4	(2)(4)	•	•	•	•
VCFD424	(2)(4)	•	•	•	•

(1) DSC4 The accessory is not compatible with the basins BC5, and VMF system.
(2) See notes and warnings in the technical booklet.
(3) Available only unit 20 - 30 - 40 - 50
(4) Accessoires only for coil additioning (BV)

Technical data

VEC_I			20			24			30			34			40			44			50			54		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,10	2,54	1,87	3,42	2,50	2,07	4,31	3,64	3,03	6,14	5,18	4,31	6,29	5,21	4,21	8,07	6,68	5,41	7,16	6,34	4,76	9,18	8,08	6,06
Water flow rate	(1)	l/h	272	223	164	300	219	181	378	319	266	538	454	378	551	457	369	708	586	474	628	556	417	805	709	532
Pressure drops	(1)	kPa	6,0	4,0	2,0	3,0	2,0	1,0	17,0	13,0	9,0	9,0	7,0	5,0	12,0	9,0	6,0	19,0	14,0	9,0	14,0	11,0	7,0	19,0	15,0	9,0
Heating capacity (45°C)	(2)	kW	1,54	1,26	0,95	1,70	1,38	1,00	2,32	1,81	1,50	3,06	2,57	2,80	3,13	2,59	2,09	4,02	3,32	2,69	3,56	3,15	2,37	4,57	3,69	3,02
Water flow rate	(2)	l/h	268	220	161	541	389	295	203	171	152	530	447	372	543	450	363	697	577	467	618	547	411	792	697	523
Pressure drops	(2)	kPa	6,5	4,5	2,6	3,5	2,5	1,5	9,5	7,0	6,0	9,0	6,8	4,9	12,0	9,0	6,0	19,0	13,0	9,0	14,0	11,0	7,0	18,0	15,0	9,0
Cooling Performance																										
Total cooling capacity	(3)	kW	1,31	1,07	0,80	1,51	1,21	0,88	1,91	1,61	1,35	2,46	2,13	1,79	2,99	2,47	1,99	3,91	3,34	2,55	3,61	3,17	2,35	4,26	3,99	2,98
Sensible cooling capacity	(3)	kW	1,07	0,87	0,64	1,14	0,90	0,67	1,49	1,25	1,03	1,76	1,50	1,26	2,41	1,98	1,58	2,74	2,42	1,91	2,59	2,27	1,68	2,88	2,42	1,77
Cooling capacity (latent)	(3)	kW	0,24	0,20	0,16	0,37	0,31	0,21	0,42	0,36	0,32	0,70	0,63	0,53	0,58	0,49	0,41	1,17	0,92	0,64	1,02	0,90	0,67	1,38	1,57	1,21
Water flow rate	(3)	l/h	227	187	138	262	185	151	335	282	236	425	368	308	513	425	341	672	574	439	621	545	404	737	688	515
Pressure drops	(3)	kPa	5,8	4,4	3,0	3,0	2,0	1,2	13,0	8,0	5,0	19,4	4,6	10,9	11,0	8,0	5,0	22,0	17,0	10,0	15,0	12,0	7,0	30,0	27,0	15,8
Fans																										
Fan - Centrifugal		n°	1			1			2			2			2			2			2			2		
Air flow rate		m³/h	247	194	130	247	167	130	383	309	241	383	309	241	511	406	306	511	406	306	613	529	371	613	529	371
Sound data																										
Sound power level	(4)	dB(A)	48	42	35	48	42	35	49	43	37	49	43	37	57	43	30	57	43	30	67	46	34	53	43	43
Sound pressure level		dB(A)	40	34	27	40	34	27	41	35	29	41	35	29	49	35	22	49	35	22	59	38	26	45	35	35
Diameter connections																										
Standard coil		Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Electrical Features																										
Absorbed power		W	14	9	4	14	9	4	44	33	25	35	16	11	57	43	30	57	43	30	67	46	34	54	31	17
Signal 0-10V		%	90	70	48	90	70	48	90	66	58	90	66	58	90	72	54	90	72	54	90	78	56	90	78	56
Power supply			230V~50Hz																							

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

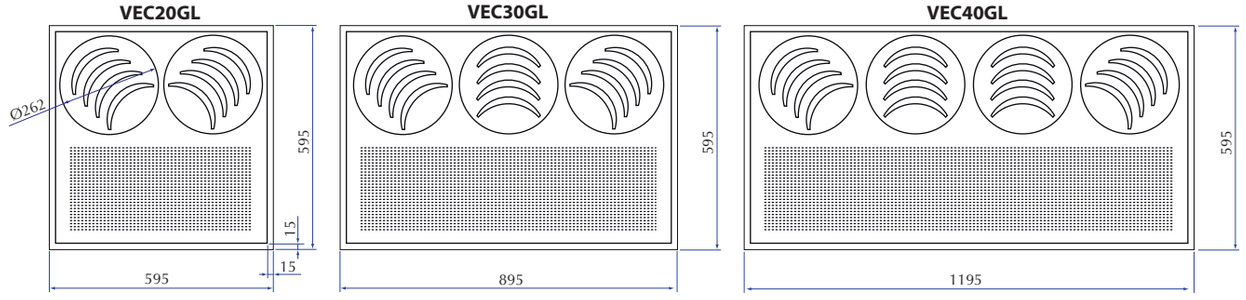
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

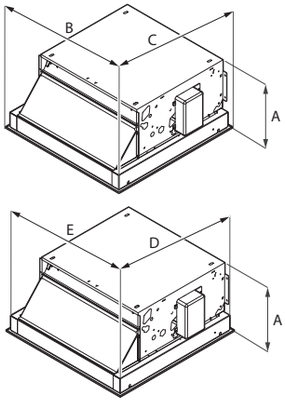
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=100m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions (mm)

VEC_GL (Compulsory accessory)





Dimensions VEC_I + VEC_GL (maximum dimensions)

Mod.	VEC_I VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
B	mm	595	895	1195	1195
C	mm	595	595	595	595
Weight (VEC_I)	kg	15,5	20,6	24,7	24,7
Weight (VEC_GL)	kg	3,7	5,7	7	7

Dimensions VEC_I + VEC_GL (Dimensions for installation)

Mod.	VEC_I VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
D	mm	574	574	574	574
E	mm	574	874	1174	174

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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www.aermec.com

Cod.: SVECIUY.11 / 1712

FCL

Cassette type fan coil
Ceiling and false ceiling installation, cooling power from 1900 up to 11000W

Aermec
participate in the EUROVENT program: FCH
the products are present on the site
www.eurovent-certification.com

Variable Multi Flow®
VMF

Models :
FCL 32 ... FCL72



GLF10
White RAL 9010



Models :
FCL 32 ... FCL72



Models :
FCL 82 ... FCL124



GLL
White RAL 9010



Remote Control included
for GLL10M
GLL10R - GLL20R



FCLMC
White RAL 9010

- **STANDARD INTERNAL 3–WAY VALVE**
- **VERSION WITH 2–WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSIONS WITHOUT VALVS**
- **FAN PURPOSELY DESIGNED FOR LOW SOUND EMISSIONS**
- **VERSIONS FOR 2–PIPE AND 4–PIPE SYSTEMS**
- **ALSO AVAILABLE WITH ELECTRIC HEATER FOR HEATING**

Features

- 8 sizes for 2-pipe versions:
  FCL 32-36-42-62-72-82-102-122
- 7 sizes for 4-pipe versions:
  FCL 34-38-44-64-84-104-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and position visual signalling.
- FCL_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems.
- FCL_VL preparation (available upon request), without internal valve.
- Grille dimensions perfectly integrable in standard suspended ceiling panels of 600x600mm and 840x840mm for the most powerful units.
  For more details refer to the accessories
- Fan designed for low sound emissions.
- 3-speed and 4-speed mixed flow (axial + centrifugal) fan unit for larger sizes (FCL 42-44-62-64-72-82-84-102-104-122-124), in order to select the 3 speeds that best meet delivered power and quiet operation requirements.
- The load-bearing structure, reinforced with a galvanised steel side band, contains insulation elements in expanded polystyrene obtained from injection moulding for purposes of noise reduction and air routing (FCL 42-44-62-72-64).
- Structure made entirely of galvanised steel, containing insulation elements in closed cell expanded polystyrene and externally covered with anti-condensate felt (FCL 82-84-102-104-122-124).
- Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.
- Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
- Continuous fan operation to prevent stratification of room air.
- Possibility of direct release of external air regardless of indoor unit ventilation.
- Possibility to control the climate of adjacent rooms as well. The versions FCL 82-84-102-104-122-124 allow 3-direction delivery.
- Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory for GLL10, GLL10R, GLL10M).
- Full compliance with safety regulations.
- Easy installation and maintenance.

Accessories

Compulsory accessories GLF and GLL, are essential for the operation of the units:

- **GLF10 (600x600) White RAL 9010.**
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel.
  Compatible with VMF = no;
  Compatible with the electrical resistance = no
- **GLF10M (600x600) White RAL 9010.**
  Delivery grille with adjustable louvers by means of a remote control and air intake, supplied with an infrared receiver with emergency operation switch.
  Compatible with VMF= si;
  Compatible with the electrical resistance = si
- **GLF10N (600x600) White RAL 9010.**
  Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel **(VMF-E4 compulsory accessory).**
  Compatible with VMF = si;
  Compatible with the electrical resistance = si
- **GLF10EH (600x600) White RAL 9010 .**
  Outlet grille with manually adjustable fins and air intake. Prepared for coupling with the RXLE electrical resistance accessory, which can be controlled by an external thermostat, also not supplied by Aermec, provided that the mini-

mum number of revolutions required for correct resistance operation is respected.
Compatible with VMF = no;
Compatible with the electrical resistance = si

- **GLL10M (600x600)**
  Delivery grille with adjustable louvers by means of a remote control and air intake, supplied with an infrared receiver with emergency operation switch.
  White RAL 9010.
- **GLL10R (600x600) / GLL20R (840x840)**
  Delivery grille with louvers manually adjustable and air intake. With remote control, supplied with an infrared receiver with emergency operation switch. White RAL 9010.
- **GLL10 (600x600) / GLL20 (840x840)**
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.
- **GLL10N (600x600) / GLL20N (840x840)**
  Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel **(VMF-E4 compulsory accessory). White RAL 9010.**

Control panel
A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SW4** : Minimum water temperature probe, to be used with the units fitted with a grille with remote control. **Conpulsury with GLL_M, GLL_R, GLL_N**
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.
  SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.

Electrical heater

- **RXLE - RXLE20** : electric heater for heating, can be installed on the single-fan FCL units.

Valve kit

- **VHL1 - VHL20** : **motor-driven three-way valve** for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems.**
- **VHL2 - VHL22** : **motor-driven two-way** valve for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems with variable flow rates.**

Accessory for Installation

- **FEL10** : kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).
- **KFL**: Delivery flange, allowing the air to be directed to an adjacent room.
- **KFL20**: delivery flange, allowing the air to be directed to an adjacent room. **Up to three KFL20 can be assembled on a single unit.**
- **KFLD** : suction flange, allows to introduce external air directly into the room without mixing.
- **KFLD20**: suction flange, allows to introduce external air directly into the room without mixing. **Up to two KFL20D can be assembled on a single unit.**
- **FCLMC10 / FCLMC20**
  is a perimeter case in galvanised and painted sheet steel, which is used when the fan coil is installed outside the suspended ceiling. **It is used for aesthetics and protection, therefore the technical features of the FCL remain unvaried.**

For more details on the control panels and VMF system refer to the dedicated sheet

FCL		32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
COMPULSARY GLL ACCESSORIES, ESSENTIAL FOR UNIT OPERATION: GLFI e GLLI and dedicated accessories																
GLF10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLF10EH		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
RXLE		•	-	•	-	•	-	•	-	•	-	-	-	-	-	-
GLF10M e GLF10N		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
VMF-E4		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
TLF		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
RXLE		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10M		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
RXLE		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10N		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
VMF-E4		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
RXLE		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10R		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
RXLE		•	-	•	-	•	-	•	-	•	-	-	-	-	-	-
GLL20		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20N		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
VMF-E4		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
RXLE20		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20R		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
RXLE20		-	-	-	-	-	-	-	-	-	•	-	•	-	•	-
Probes and accessories for control panels																
PX-PX2-PX2C6*	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPFW	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3	(1)	In combination with PXAE														
SIT3	(1)	In combination with TPFW or PXAE o PX2 or PX or PX2C6 WMT10														
SIT5	(1)	In combination with TPFW or PXAE														
SW4	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories that can only be used in combination with GLL10 and GLL20 grilles.
(2) Compulsory with GLL_M, GLL_R, GLL_N
(3) Accessories that can only be used in combination with the GLL10N and GLL20N grilles for individual units or network master
(4) A maximum of three KFL20 / KFL20D can be assembled on a single unit
* PX2C6, PX2 panel in multiple 6-piece pack, **for only wall installations**

FCL	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
3 way valve kit for 4 pipe systems															
VHL1	-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL20	-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
2 way valve kit for 4 pipe systems															
VHL2	-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL22	-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
Installation accessories															
FEL10	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL20 (2)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
KFLD	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFLD20 (2)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
Perimeter case															
FCLMC10	•	•	•	•	•	•	•	•	•						
FCLMC20										•	•	•	•	•	•

FCL			32			34			36			38			42			44			62			64		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	4,00	2,95	2,22	/	/	/	6,27	4,50	3,42	/	/	/	7,34	4,47	3,32	/	/	/	10,49	6,37	5,19	/	/	/
Water flow rate	(1)	l/h	350	258	194	/	/	/	549	394	300	/	/	/	642	391	290	/	/	/	918	558	454	/	/	/
Pressure drops	(1)	kPa	10,0	6,0	4,0	/	/	/	19,0	10,0	6,0	/	/	/	24,0	10,0	6,0	/	/	/	42,0	17,0	12,0	/	/	/
Heating capacity (45°C)	(2)	kW	1,98	1,47	1,10	/	/	/	3,12	2,24	1,70	/	/	/	3,64	2,22	1,65	/	/	/	5,21	3,17	2,58	/	/	/
Water flow rate	(2)	l/h	345	254	192	/	/	/	541	389	295	/	/	/	633	386	287	/	/	/	905	550	448	/	/	/
Pressure drops	(2)	kPa	10,5	6,1	3,6	/	/	/	17,0	9,0	6,0	/	/	/	22,0	9,0	5,0	/	/	/	36,0	15,0	10,0	/	/	/
4 Pipe configuration with Additional Heat Exchanger																										
Heating capacity (65°C)	(3)	kW	/	/	/	2,32	1,95	1,74	/	/	/	2,32	1,95	1,74	/	/	/	2,44	2,04	1,75	/	/	/	3,19	2,50	2,21
Water flow rate	(3)	l/h	/	/	/	203	171	152	/	/	/	203	171	152	/	/	/	240	178	153	/	/	/	279	219	194
Pressure drops	(3)	kPa	/	/	/	9,5	7,0	6,0	/	/	/	9,5	7,0	6,0	/	/	/	10,0	7,0	5,5	/	/	/	19,0	10,0	10,0
Cooling Performance																										
Total cooling capacity	(4)	kW	1,86	1,44	1,14	1,86	1,44	1,14	2,96	2,22	1,77	2,73	2,05	1,63	3,88	2,51	1,94	2,95	2,31	1,79	4,90	3,17	2,63	4,51	2,93	2,43
Sensible cooling capacity	(4)	kW	1,48	1,22	0,97	1,48	1,22	0,97	2,36	1,75	1,37	2,20	1,63	1,28	3,09	1,79	1,36	2,13	1,65	1,25	3,73	2,23	1,83	3,43	2,06	1,69
Cooling capacity (latent)	(4)	kW	0,38	0,22	0,17	0,38	0,22	0,17	0,60	0,47	0,40	0,53	0,42	0,35	0,79	0,72	0,58	0,82	0,66	0,54	1,17	0,94	0,80	1,08	0,87	0,74
Water flow rate	(4)	l/h	327	253	200	327	253	200	516	387	308	476	358	284	679	437	337	626	396	314	856	551	458	793	510	424
Pressure drops	(4)	kPa	10,0	7,0	4,0	10,0	7,0	4,0	15,0	9,0	6,0	13,0	8,0	5,0	25,0	11,0	7,0	15,0	10,0	6,0	36,0	16,0	12,0	34,6	15,6	11,2
Fans																										
Fan - Centrifugal		n°	1																							
Air flow rate		m³/h	600	410	300	600	410	300	600	410	300	600	410	300	700	360	260	700	360	260	880	500	380	880	500	380
Sound data																										
Sound power level	(5)	dB(A)	46	38	35	46	38	35	46	38	35	46	38	35	53	38	35	46	39	35	61	47	41	61	47	41
Sound pressure level		dB(A)	37	29	26	37	29	26	37	29	26	37	29	26	44	30	26	37	30	26	52	38	32	52	38	32
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			1/2"			/			1/2"			/			1/2"			/			1/2"		
Electrical Features																										
Absorbed power		W	45	31	21	45	31	21	45	31	21	45	31	21	75	32	22	47	32	22	83	37	26	101	45	32
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1

FCL			72			82			84			102			104			122			124		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																							
2 pipe configuration																							
Heating capacity (70°C)	(1)	kW	11,32	7,57	6,14	11,88	8,12	5,88	/	/	/	17,73	11,71	8,30	/	/	/	21,75	14,73	10,53	/	/	/
Water flow rate	(1)	l/h	991	662	538	1039	710	514	/	/	/	1551	1025	726	/	/	/	1903	1289	921	/	/	/
Pressure drops	(1)	kPa	42,0	20,0	14,0	26,0	13,0	7,0	/	/	/	25,0	12,0	6,0	/	/	/	42,0	21,0	11,0	/	/	/
Heating capacity (45°C)	(2)	kW	5,63	3,76	3,50	5,90	4,03	2,92	/	/	/	8,81	5,82	4,12	/	/	/	10,80	7,32	5,23	/	/	/
Water flow rate	(2)	l/h	977	654	530	1025	701	507	/	/	/	1530	1011	716	/	/	/	1877	1271	909	/	/	/
Pressure drops	(2)	kPa	40,0	19,0	13,0	23,0	12,0	7,0	/	/	/	15,0	7,0	4,0	/	/	/	35,0	17,0	9,5	/	/	/
4 Pipe configuration with Additional Heat Exchanger																							
Heating capacity (65°C)	(3)	kW	/	/	/	/	/	/	7,59	5,71	4,73	/	/	/	8,93	6,53	5,27	/	/	/	11,17	8,31	6,30
Water flow rate	(3)	l/h	/	/	/	/	/	/	664	500	414	/	/	/	782	571	461	/	/	/	977	727	551
Pressure drops	(3)	kPa	/	/	/	/	/	/	12,0	7,5	5,5	/	/	/	16,5	9,5	6,5	/	/	/	25,0	14,5	9,0
Cooling Performance																							
Total cooling capacity	(4)	kW	5,35	3,29	2,75	5,85	3,97	2,76	5,85	3,97	2,76	8,85	5,82	4,00	7,05	4,84	3,45	10,83	7,40	5,31	8,63	6,11	4,52
Sensible cooling capacity	(4)	kW	3,99	2,29	1,84	4,05	2,69	1,86	4,05	2,69	1,86	6,51	4,22	2,89	5,15	3,45	2,43	8,30	5,63	3,99	6,60	4,57	3,32
Cooling capacity (latent)	(4)	kW	1,36	1,00	0,91	1,80	1,28	0,90	1,80	1,28	0,90	2,34	1,60	1,11	1,90	1,39	1,02	2,53	1,77	1,32	2,03	1,54	1,20
Water flow rate	(4)	l/h	938	571	484	1032	695	482	1032	695	482	1547	1012	697	1238	845	602	1893	1292	921	1513	1068	786
Pressure drops	(4)	kPa	43,0	18,0	13,0	28,0	14,0	7,0	25,0	12,0	6,0	28,0	13,0	7,0	26,0	13,0	7,0	38,0	19,0	10,0	38,0	22,0	12,0
Fans																							
Fan - Centrifugal		n°	1																				
Air flow rate		m³/h	900	520	400	1100	680	460	1100	680	460	1350	830	560	1350	830	560	1750	1100	750	1750	1100	750
Sound data																							
Sound power level	(5)	dB(A)	60	49	44	50	43	39	50	43	39	54	45	40	54	45	40	60	50	44	60	50	46
Sound pressure level		dB(A)	51	40	35	41	34	30	41	34	30	45	36	31	45	36	31	51	41	35	51	41	35
Diameter connections																							
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			1/2"			/			1/2"			/			1/2"		
Electrical Features																							
Absorbed power		W	110	58	50	150	80	45	150	80	45	155	80	50	155	80	50	175	105	55	175	105	55
Electrical wiring			V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

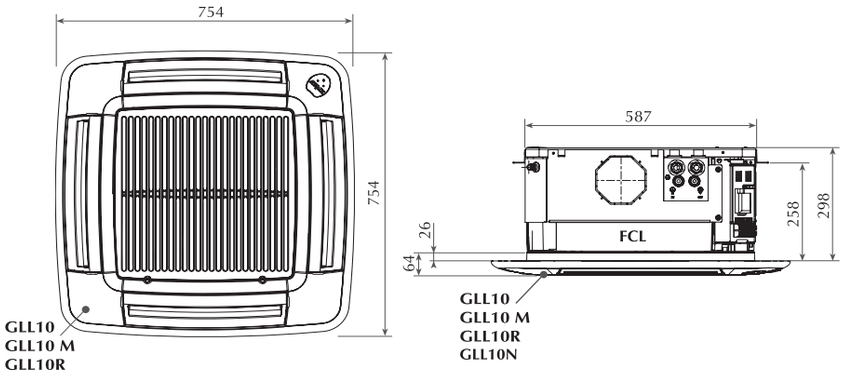
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

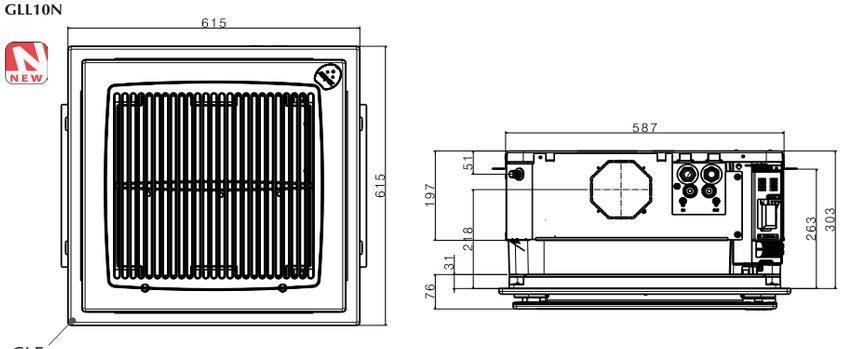
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=100 m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dimensions (mm)

FCL 32 - 34 - 36 - 38 - 42 - 44 - 62 - 64 - 72
FCL 32 V2 - 34 V2 - 36 V2 - 38 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2 - 72 V2
FCL 32 VL - 34 VL - 36 VL - 38 VL - 42 VL - 44 VL - 62 VL - 64 VL - 72 VL



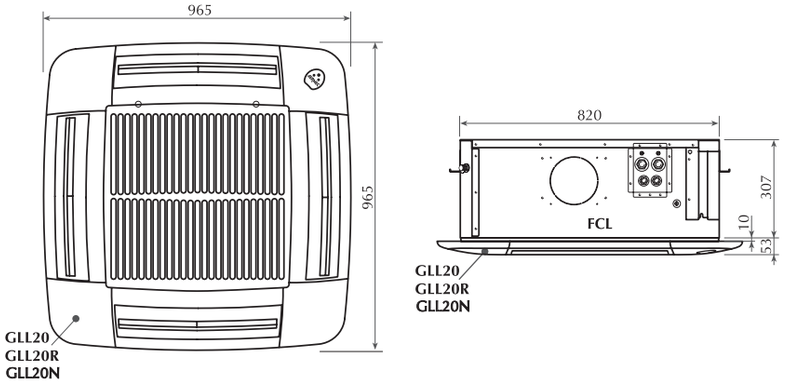


Mod. FCL		32	34	36	38	42	44	62	64	72
Weight	kg	20,5	21	20,5	21	20,5	21	22	22,5	22,5

Mod. FCL		32 V2	34 V2	36 V2	38 V2	42 V2	44 V2	62 V2	64 V2	72 V2
Weight	kg	20,5	21	20,5	21	20,5	21	21	22,5	22,5

Mod. FCL		32 VL	34 VL	36 VL	38 VL	42 VL	44 VL	62 VL	64 VL	72 VL
Weight	kg	20	20,5	20	20,5	20	20,5	21,5	22	22

FCL 82 - 84 - 102 - 104 - 122 - 124
FCL 82 V2 - 84 V2 - 102 V2 - 104 V2 - 122 V2 - 124 V2
FCL 82 VL - 84 VL - 102 VL - 104 VL - 122 VL - 124 VL



Mod. FCL		82	84	102	104	122	124
Weight	kg	35	36	36	36	36	36

Mod. FCL		82 V2	84 V2	102 V2	104 V2	122 V2	124 V2
Weight	kg	35	36	36	36	36	36

Mod. FCL		32 VL	34 VL	102 VL	104 VL	122 VL	124 VL
Weight	kg	34	35	35	35	35	35

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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www.aermec.com

Cod.: SFCLUY.14 / 1711

FCLI

Cassette type fan coil with Brushless Inverter motor (EC)
continuos 0-100% air flow rate regulation
Ceiling and false ceiling installation, coooling power from 1900 up to 11000W

INVERTER TECHNOLOGY

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

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Variable Multi Flow

VMF

Size :
FCLI 32 ... FCLI64



GLFI10
☐ White RAL 9010



Size :
FCLI 32 ... FCLI 64



Size :
FCLI 82 ... FCLI 124



GLLI
☐ White RAL 9010



FCLMC
☐ White RAL 9010

- **ENERGYSAVING OF 50% COMPARED WITH A TRADITIONAL 3–SPEED MOTOR**
- **TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATONS IN THE AIR–CONDITIONED ROOMS**

Features

Versioni
FCLI standard Standard preparation with standard internal three-way valve, with fast connection actuator and position visual signalling.
FCL_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems.
FCL_VL preparation (available upon request), without internal valve.

- Grille dimensions perfectly integrable in standard suspended ceiling panels of 600x600mm and 840x840mm for the most powerful units.
- Fan designed for low sound emissions.
- The load-bearing structure, reinforced with a galvanised steel side band, contains insulation elements in expanded polystyrene obtained from injection moulding for purposes of noise reduction and air routing (FCL 32-34-42-44-62-64).
- Structure made entirely of galvanised steel, containing insulation elements in closed cell expanded polystyrene and externally covered with anti-condensate felt (FCL 82-122-124).
- Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.
- Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
- Possibility of direct release of external air regardless of indoor unit ventilation.
- Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900)
- Full compliance with safety regulations.
- Easy installation and maintenance.

Accessories

Compulsory accessories GLFI and GLLI, are essential for the operation of the units:

- **GLFI10 (600x600) White RAL 9010.**
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel.
  Compatible with VMF = no;
  Compatible with the electrical resistance = no
- **GLFI10M (600x600) White RAL 9010.**
  Delivery grille with adjustable louvers by means of a remote control and air intake, supplied with an infrared receiver with emergency operation switch.
  Compatible with VMF= yes;
  Compatible with the electrical resistance = yes
- **GLFI10N (600x600) White RAL 9010.**
  Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel **(VMF-E4 compulsory accessory).**
  Compatible with VMF = yes;
  Compatible with the electrical resistance = yes
- **GLFI10EH (600x600) White RAL 9010 .**
  Outlet grille with manually adjustable fins and air intake. Prepared for coupling with the RXLE electrical resistance accessory, which can be controlled by an external thermostat, also not supplied by Aermec, provided that the minimum number of revolutions required for correct resistance operation is respected.
  Compatible with VMF = no;
  Compatible with the electrical resistance = yes
- **GLLI100 (600x600)**
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.
- **GLLI100N (600x600)**
  Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel **(VMF-E4 compulsory accessory). White RAL 9010.**
- **GLLI100EH (600x600)**
  Outlet grille with manually adjustable fins and air intake. Prepared for coupling with the RXLE electrical resistance accessory, which can be controlled by an external thermostat, even if the Aermec is not supplied, provided that the minimum number of revolutions required for correct resi-

Accessories

stance operation is respected. RAL 9010 white color.

- **GLLI20 (840x840)**
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.
- **GLLI20N (840x840)**
  Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel **(VMF-E4 compulsory accessory). White RAL 9010.**

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature for WMT21. Cable lenght L=2m.
- **SW4 :** Water temperature probe for the control of maximum / minimum temperature (2 pipe system) or for the control of minimum temperature in the heating coil (4-pipe system)

VMF system

- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-SW1:** Additional water sensor for 4 - pipe ssytem with E1 thermostats offering maximum control in the cooling range

Electrical heater

- **RXLE - RXLE20** : electric heater for heating, can be installed on the single-fan FCL units.

Valve kit

- **VHL1 - VHL20** : **motor-driven three-way valve** for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems.**
- **VHL2 - VHL22** : **motor-driven two-way** valve for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems with variable flow rates.**

Accessory for Installation

- **FEL10** : kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).
- **KFL**: Delivery flange, allowing the air to be directed to an adjacent room.
- **KFL20**: delivery flange, allowing the air to be directed to an adjacent room. **Up to three KFL20 can be assembled on a single unit.**
- **KFLD** : suction flange, allows to introduce external air directly into the room without mixing.
- **KFLD20**: suction flange, allows to introduce external air directly into the room without mixing. **Up to two KFL20D can be assembled on a single unit.**
- **FCLMC10 / FCLMC20**
  is a perimeter case in galvanised and painted sheet steel, which is used when the fan coil is installed outside the suspended ceiling. **It is used for aesthetics and protection, therefore the technical features of the FCL remain unvaried.**

For more details on the control panels and VMF system refer to the dedicated sheet

FCLI	32	34	42	44	62	64	82	122	124
COMPULSARY GLL ACCESSORIES, ESSENTIAL FOR UNIT OPERATION: GLFI e GLLI and dedicated accessories									
GLFI10	•	•	•	•	•	•	-	-	-
GLFI10EH	•	•	•	•	•	•	-	-	-
RXLE	•	-	•	-	•	-	-	-	-
GLFI10M e GLFI10N	•	•	•	•	•	•	-	-	-
VMF-E4	•	•	•	•	•	•	-	-	-
VMF-SW1	•	•	•	•	•	•	-	-	-
TLF	•	•	•	•	•	•	-	-	-
RXLE	•	•	•	•	•	•	-	-	-
GLLI100	•	•	•	•	•	•	-	-	-
GLLI100N	•	•	•	•	•	•	-	-	-
VMF-E4	•	•	•	•	•	•	-	-	-
VMF-SW1	•	•	•	•	•	•	-	-	-
RXLE	•	•	•	•	•	•	-	-	-
GLLI100EH	•	•	•	•	•	•	-	-	-
RXLE	•	-	•	-	•	-	-	-	-
GLLI20	-	-	-	-	-	-	•	•	•
GLLI20N	-	-	-	-	-	-	•	•	•
VMF-E4	-	-	-	-	-	-	•	•	•
VMF-SW1	-	-	-	-	-	-	•	•	•
RXLE20	-	-	-	-	-	-	•	•	•
Probes and accessories for control panels									
WMT21	•	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21								
SW4	•	•	•	•	•	•	•	•	•
Valvole ad acqua **3 way valve kit for 4 pipe systems**									
VHL1	-	•	-	•	-	•	-	-	-
VHL20	-	-	-	-	-	-	-	-	•
2 way valve kit for 4 pipe systems									
VHL2	-	•	-	•	-	•	-	-	-
VHL22	-	-	-	-	-	-	-	-	•
Installation accessories									
FEL10	•	•	•	•	•	•	-	-	-
KFL	•	•	•	•	•	•	-	-	-
KFL20	-	-	-	-	-	-	•	•	•
KFLD	•	•	•	•	•	•	-	-	-
KFLD20	-	-	-	-	-	-	•	•	•
Perimeter case									
FCLMC10	•	•	•	•	•	•	-	-	-
FCLMC20	-	-	-	-	-	-	•	•	•
FCLMC20IK (1)	-	-	-	-	-	-	•	•	•

(1) CLMC20 requires the combination with the FCLMC20IK accessory

Dati tecnici

FCL_I			32			34			42			44			62			64		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																				
2 pipe configuration																				
Heating capacity (70°C)	(1)	kW	4,00	2,95	2,22	/	/	/	7,34	4,47	3,32	/	/	/	10,49	6,37	5,19	/	/	/
Water flow rate	(1)	l/h	350	258	194	/	/	/	642	391	290	/	/	/	918	558	454	/	/	/
Pressure drops	(1)	kPa	10	6	4	/	/	/	24,0	10,0	6,0	/	/	/	42,0	17,0	12,0	/	/	/
Heating capacity (45°C)	(2)	kW	1,98	1,47	1,10	/	/	/	3,64	2,21	1,67	/	/	/	5,21	3,21	2,58	/	/	/
Water flow rate	(2)	l/h	345	254	192	/	/	/	633	386	287	/	/	/	905	550	448	/	/	/
Pressure drops	(2)	kPa	10,5	6,1	4	/	/	/	20,5	8,4	5,0	/	/	/	41,0	17,0	12,0	/	/	/
4 Pipe configuration with Additional Heat Exchanger																				
Heating capacity (65°C)	(3)	kW	/	/	/	2,32	1,97	1,70	/	/	/	2,74	2,02	1,70	/	/	/	3,14	2,76	2,05
Water flow rate	(3)	l/h	/	/	/	203	171	152	/	/	/	240	178	153	/	/	/	279	219	194
Pressure drops	(3)	kPa	/	/	/	9,3	6,9	5,3	/	/	/	12,0	7,0	5,5	/	/	/	18,5	11,0	9,0
Cooling Performance																				
Total cooling capacity	(4)	kW	1,88	1,46	1,15	1,88	1,46	1,15	3,90	2,52	1,95	3,59	2,32	1,80	4,92	3,19	2,65	4,25	2,76	2,29
Sensible cooling capacity	(4)	kW	1,50	1,24	0,98	1,50	1,24	0,98	3,11	1,80	1,37	2,87	1,66	1,26	3,75	2,25	1,85	3,22	1,93	1,59
Cooling capacity (latent)	(4)	kW	0,38	0,22	0,17	0,38	0,22	0,17	0,79	0,72	0,58	0,72	0,66	0,54	1,17	0,94	0,80	1,03	0,83	0,70
Water flow rate	(4)	l/h	327	253	200	327	253	200	679	437	337	626	396	314	856	551	458	793	510	424
Pressure drops	(4)	kPa	13,0	4,0	4,0	10,0	7,0	4,0	25,0	11,0	7,0	23,0	10,0	6,0	36,0	16,0	12,0	50,3	22,7	16,3
Fans																				
Fan - Centrifugal		n°	1																	
Air flow rate		m³/h	600	410	300	600	410	300	700	360	260	700	360	260	880	500	380	880	500	380
Sound data																				
Sound power level	(5)	dB(A)	46	38	35	46	38	35	53	38	35	53	39	35	61	47	41	61	47	41
Sound pressure level		dB(A)	37	29	26	37	29	26	44	30	26	44	30	26	52	38	32	52	38	32
Diameter connections																				
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			1/2"			/			1/2"			/			1/2"		
Electrical Features																				
Absorbed power		W	18	13	10	18	13	10	55	16	12	55	16	12	61	20	14	61	20	14
0-10V		%	90	62	42	90	62	42	90	46	34	90	46	34	90	52	40	90	52	40
Power supply			230V~50Hz																	

FCL_I			82			122			124		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance											
2 pipe configuration											
Heating capacity (70°C)	(1)	kW	11,88	8,12	5,88	21,75	14,73	10,53	/	/	/
Water flow rate	(1)	l/h	1039	710	514	1903	1289	921	/	/	/
Pressure drops	(1)	kPa	26,0	13,0	7,0	42,0	21,0	11,0	/	/	/
Heating capacity (45°C)	(2)	kW	5,90	4,05	2,94	10,80	7,37	5,28	/	/	/
Water flow rate	(2)	l/h	1025	701	507	1877	1271	909	/	/	/
Pressure drops	(2)	kPa	25,5	13,0	7,5	41,0	20,5	11,5	/	/	/
4 Pipe configuration with Additional Heat Exchanger											
Heating capacity (65°C)	(3)	kW	/	/	/	/	/	/	11,10	8,30	6,46
Water flow rate	(3)	l/h	/	/	/	/	/	/	977	727	551
Pressure drops	(3)	kPa	/	/	/	/	/	/	25,0	14,5	9,5
Cooling Performance											
Total cooling capacity	(4)	kW	5,97	4,04	2,79	10,87	7,47	5,34	8,67	6,19	4,55
Sensible cooling capacity	(4)	kW	4,17	2,76	1,89	8,34	5,70	4,02	6,64	4,64	3,35
Cooling capacity (latent)	(4)	kW	1,80	1,28	0,90	2,53	1,77	1,32	2,03	1,55	1,20
Water flow rate	(4)	l/h	1032	695	482	1893	1292	921	1513	1068	786
Pressure drops	(4)	kPa	28,0	12,0	7,0	38,0	19,0	10,0	38,0	20,0	10,0
Fans											
Fan - Centrifugal		n°	1								
Air flow rate		m³/h	1100	680	460	1750	1100	750	1750	1100	750
Sound data											
Sound power level	(5)	dB(A)	50	43	44	60	50	44	60	52	44
Sound pressure level		dB(A)	41	34	30	51	41	35	51	41	35
Diameter connections											
Standard coil		Ø	3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			1/2"		
Electrical Features											
Absorbed power		W	33	14	10	135	33	16	135	33	16
0-10V		A	0,71			0,80			0,80		
Power supply			230V~50Hz								

EU 2016/2281

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

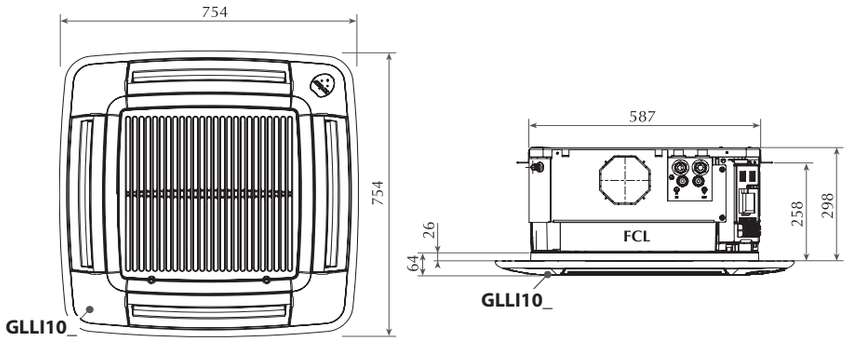
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

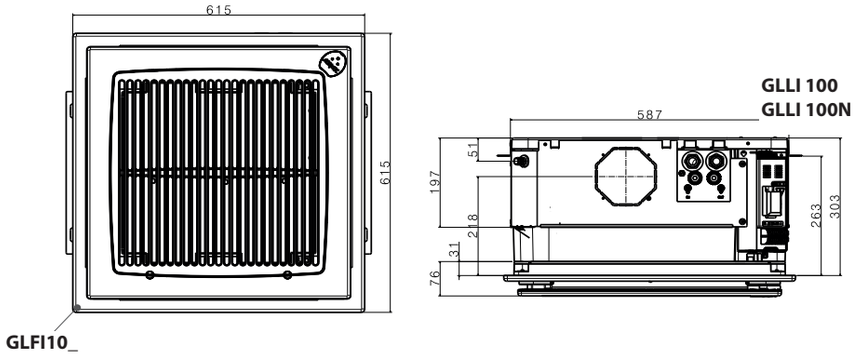
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=100 m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

Dati dimensionali (mm)

FCLI 32 - 34 - 42 - 44 - 62 - 64
FCLI 32 V2 - 34 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2
FCLI 32 VL - 34 VL - 42 VL - 44 VL - 62 VL - 64 VL



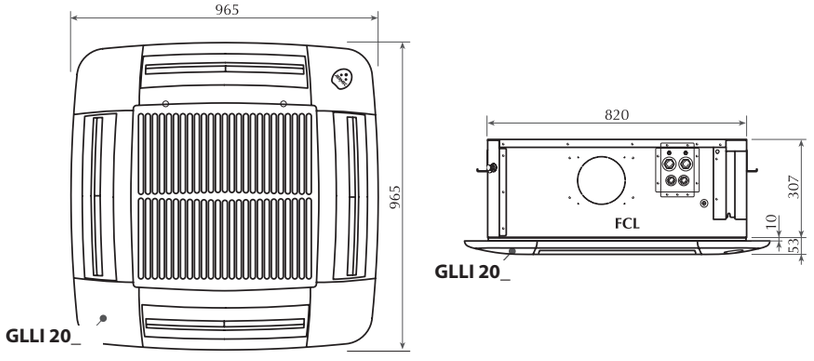


Mod. FCLI		32	34	42	44	62	64
Weight	kg	20,5	21	20,5	21	22	22,5

Mod. FCLI		32 V2	34 V2	42 V2	44 V2	62 V2	64 V2
Weight	kg	20,5	21	20,5	21	22	22,5

Mod. FCLI		32 VL	34 VL	42 VL	44 VL	62 VL	64 VL
Weight	kg	20	20,5	20	20,5	21,5	22

FCLI 82 - 122 - 124
FCLI 82 V2 - 122 V2 - 124 V2
FCLI 82 VL - 122 VL - 124 VL



Mod. FCLI		82	122	124
Weight	kg	35	36	36

Mod. FCLI		82 V2	122 V2	124 V2
Weight	kg	35	36	36

Mod. FCLI		32 VL	122 VL	124 VL
Weight	kg	34	35	35

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Cod.: SFCLIUY.12 / 1712

FCW

Fan coils
Wall-mount installation

Aermec
is participating in the EUROVENT Program: FCH
The related products can be found at the website
www.eurovent-certification.com



New Colors!
Pure White
Pantone GRIS 1C
RAL 9010

Variable Multi Flow
VMF

• VERSIONS WITH INTERNAL 2– OR 3–WAY VALVE
• QUICK AND EASY INSTALLATION
• COMPACT DIMENSIONS

Features

By appropriately combining the options available, it is possible to select the model that satisfies the specific system requirements.

Sale code description:

Code	Size	Valve	Microprocessor control
FCW	**22-32-42**	**2V** (with internal 2-way valve) **3V** (with internal 3-way valve) **VL** (without valve)	**(Empty)** with control board **N** without control board

FCW is a fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors.
The product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements.
Fan coils without control board must be necessarily combined with an external control device.

- Display on the front panel
- Three-speed cross flow fan
- Maximum silence
- Aesthetically styled with flat panel
- Air flow louvered fins with horizontal adjustment facility
- Motorised deflector louvers that can be activated by remote control TLW2 and remote panel PFW2 for vertical orientation of the outlet air with 4 fixed positions and continuous oscillation
- Timer for programming switch-off or switch-on (TLW2 and PFW2)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW2 and PFW2);
- Night time Well-being Program (TLW2)
- Automatic season change (TLW2 and PFW2)
- Automatic re-start after power cut (TLW2 and PFW2)
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning
- Full compliance with accident-prevention standards.

Accessories

For models with control board installed
FCW_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCW series **(TLW2 or PFW2)**

For models without control board installed
FCW_2VN, 3VN, VLN a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation.
To make the selection, please refer to the **"control panels"** or **"VMF system"** sheets, where you will find comprehensive information on this topic.

• Remote control TLW2
(mandatory accessory for versions with controller FCW_2V, FCW_3V, FCW_VL):
This accessory is required for operating the fan coil as an alternative to the wired remote control panel PFW2.
Infrared remote control with liquid crystal display for controlling all unit functions.
The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil.
The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.

• Wired control panel PFW2
(mandatory accessory for versions with controller FCW_2V, FCW_3V, FCW_VL):
This accessory is required for operating the fan coil.
The PFW2 panel can control only one fan coil.
The panel must be wall-mounted and connected to the fan coil using the 7.5-metre long cable provided.

Technical data

FCW			222V			223V			22VL			322V			323V			32VL			422V			423V			42VL		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																													
2 pipe systems																													
Heating capacity (70°C)	(1)	kW	4,03	3,02	2,65	4,03	3,02	2,35	4,29	3,66	2,85	5,03	4,36	3,25	5,03	4,36	3,25	5,24	4,51	3,73	7,97	7,23	6,29	7,97	7,23	6,29	8,56	7,84	6,44
Water flow rate	(1)	l/h	354	265	206	354	265	206	377	321	250	442	383	286	442	383	286	460	396	328	699	635	552	699	635	552	751	688	565
Pressure drop	(1)	kPa	24	14	9	24	14	9	9	6	4	29	22	13	29	22	13	16	12	9	32	27	21	32	27	21	26	22	16
Heating capacity (45°C)	(2)	kW	2,00	1,50	1,17	2,00	1,50	1,17	2,14	1,82	1,42	2,50	2,17	1,62	2,50	2,17	1,62	2,61	2,24	1,85	3,96	3,60	3,13	3,96	3,60	3,13	4,26	3,90	3,21
Water flow rate	(2)	l/h	348	261	203	348	261	203	371	316	246	434	377	281	435	377	281	453	390	322	688	624	543	688	624	543	739	677	556
Pressure drop	(2)	kPa	24	14	9	24	14	9	8	6	4	29	22	13	29	22	13	16	12	9	31	26	20	31	26	20	25	22	15
Cooling Performance																													
Total cooling capacity	(3)	kW	1,90	1,45	1,10	1,90	1,45	1,10	2,05	1,74	1,37	2,40	2,08	1,55	2,40	2,08	1,55	2,50	2,15	1,78	3,80	3,45	3,00	3,80	3,45	3,00	4,08	3,74	3,07
Sensible cooling capacity	(3)	kW	1,55	1,20	0,92	1,55	1,20	0,92	1,73	1,47	1,16	1,97	1,68	1,28	1,97	1,68	1,28	2,04	1,82	1,51	2,85	2,50	2,01	2,85	2,50	2,01	3,47	3,10	2,59
Cooling capacity (latent)	(3)	kW	1,23	1,21	1,20	1,23	1,21	1,20	0,32	0,27	0,21	0,43	0,40	0,27	0,43	0,40	0,27	0,46	0,33	0,27	0,95	0,95	0,99	0,95	0,95	0,99	0,61	0,64	0,48
Water flow rate	(3)	l/h	327	249	189	327	249	189	353	299	236	413	358	267	413	358	267	430	370	306	654	593	516	654	593	516	702	643	528
Pressure drop	(3)	kPa	23	14	9	23	14	9	9	7	5	29	22	13	29	22	13	15	11	8	32	27	21	32	27	21	26	21	15
Fans																													
Ventilatore - Tangential		n°	1																										
Air flow rate		m³/h	380	330	270	380	330	270	389	340	280	440	390	320	440	390	320	446	400	330	540	470	370	540	470	370	684	602	476
Sound level																													
Sound power level	(4)	dB(A)	53	48	42	53	48	42	53	48	42	53	48	42	53	48	42	53	48	42	54	49	44	54	49	44	54	49	44
Sound pressure level		dB(A)	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	45,5	40,5	35,5	45,5	40,5	35,5	45,5	40,5	35,5
Hydraulic connections																													
Main coil																													
Standard		Ø Gas (F)	1/2"F			1/2"F			1/2"F			1/2"F			1/2"F			1/2"F			1/2"F			1/2"F			1/2"F		
Electrical data																													
Absorbed power		W	27	24	23	27	24	23	27	24	23	27	23	22	27	23	22	27	23	22	48	41	31	48	41	31	48	41	31
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply			230V~50Hz																										

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Sound power level: based on mesurement in compliance with Eurovent 8/2
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

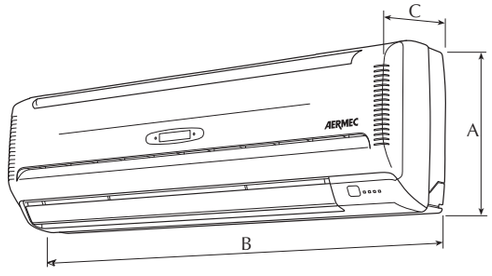
Dimensional data (mm)



Accessory TLW2



Accessory PFW2



FCW		22	32	42
A	mm	298	305	360
B	mm	880	990	1170
C	mm	205	210	220
Weight	kg	9	10	19

Code: SFCW3VUY.09/1612

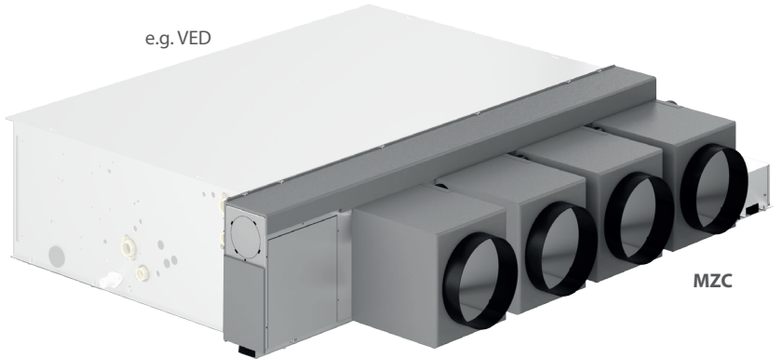
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NEW

MZC

Plenum with motor-driven dampers for channelling fan coils



Thermostats



WR10 and **WT10** Compulsory



MZCUI n°1 as standard

- **MULTI–ZONE PLENUM FOR CONTROLLING AIR CAPACITY**
- **AVAILABLE FOR CHANNELLED ON/OFF AND INVERTER FAN COILS**
- **IDEAL FOR RESIDENTIAL AND TERTIARY SECTOR APPLICATIONS**

Features

- The plenum with motor-driven dampers is designed for residential and tertiary applications. It combines optimal ambient comfort with assured energy savings.
  Modern plant increasingly require overall air conditioning using channelled systems. Thanks to the electronic control of the dampers, the **MZC** accessory regulates the room's comfort by adjusting the air flow to meet the actual requirements.
  MZC is designed for use in combination with all **fan coils with asynchronous or brushless motors** and is pre-set to distribute exchange air.

Special features:
Structure
- Galvanized sheet metal structure, insulated with self-extinguishing material.
- From 2 to 6 delivery outlet blocks depending on the model. Each outlet is fitted with a motor-driven damper, with the possibility - whenever the system so requires - of adding an accessory MZCSM outlet (possibility not available for all models - see the accessory compatibility table).
- **Fresh air injection flange, supplied as standard,** for connecting the MZC plenum to a heat recovery unit.
- Pre-setting for the installation of an additional Air Probe (accessory MZCSA) to control the Modulating or Pressure Independent Valves.
- Possibility of installing the plenum even on the fan coil intake using a flange (accessory MZCA)
- Reversible electrical box (right/left)

Adjustment
- **MCZ is equipped with a zone thermostat MZCUI** to select the required temperature set The status of the dampers (open/closed) is adjusted on reaching the temperature set in each room.
- Management of up to 6 motorized dampers
- Flow control for each damper (the damper's maximum and minimum aperture can be set for each outlet).
- **Possibility of associating the control of multiple dampers with the same zone thermostat, even wireless (MZCUI or WT10).**
- For installations in which the dampers and room thermostats are uniquely associated, the dampers can be modulated in relation to the room thermostats' requirements.
- Enabling the "Suction Plenum" function
- MZC is able to control any valves installed on the fan coil associated with it (On/Off, modulating or Pressure Independent types) for systems with 2 or 4 pipes
- Possibility of setting control unit parameters through the supervision serial port

Compatibility of accessories

- **MZCAC**, **Compulsory** electrical plant for connecting the MZC plenum **with a fan coil fitted with an asynchronous motor**
- **MZCBC**, **Compulsory** electrical plant for connecting the MZC plenum **with a fan coil fitted with a brushless motor**
- **MZCSM**, single module with motorized damper **for all models except MZC220**
- **MZCUI**, zone thermostat **in addition to the one supplied as standard whenever the plant installation so requires.**
- **MZCA**, Adapter flange for installing the Plenum even under fan coil suction.
- **WT10**, Wireless thermostat.
- **WR10**, Two-channel wireless receiver for WT10.
- **MZCSA**, Air Probe for controlling Modulating or Pressure Independent Valves.
- **VMF-VOC**, Air quality detection accessory.

	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCSM	-	•	•	•	•	•
MZCUI	•	•	•	•	•	•
MZCAC	•	•	•	•	•	•
MZCBC	•	•	•	•	•	•
WT10	•	•	•	•	•	•
WR10	•	•	•	•	•	•
MZCA	2	3	5	8	-	-
MZCSA	•	•	•	•	•	•
VMF-VOC	•	•	•	•	•	•

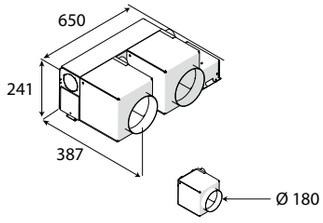
Compatibility of MZC Plenums with Aermec Fan Coils

For performance data, refer to the product data cards for each MZC compatible unit. All these data cards are available on the site www.aermec.com

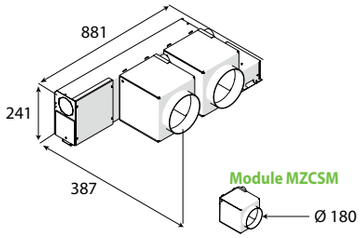
Models	N° Dampers	FCX_ PO	FCXI_P	FCZ_PO	FCZI_P	VED	VED_I
MZC220	2	22-24	20-24	200-201-202-250	200-201-202-250	030-040	030-040
MZC320	2 *	32-34-36	30-34-36	300-301-302-350	300-301-302-350	130-140	130-140
MZC530	3 *	42-44 50-54-56	40-44 50-54-56	400 -401-402-450 500-501-502-550	400 -401-402-450 500-501-502-550	230-240	230-240
MZC830	3 *	62-64 82-84	80-84	600-601-602-650 700-701-702-750 800-801-802-850 900-901-950	700-701-702-750 900-901-950	330-340	330-340
MZC5040	4 *	-	-	-	-	430-432-440-441 530-532-540-541	530-532-540-541
MZC7050	5 *	-	-	-	-	630-632640-641 730-732-740-741	730-732-740-741

* Whenever the plant installation so requires, **it is even possible to add later on a** single delivery module **MZCSM** (accessory), refer to the figures

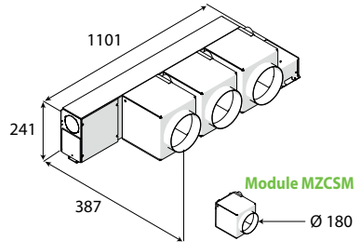
MZC220



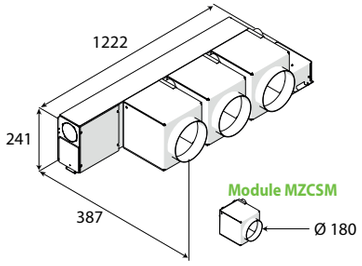
MZC320



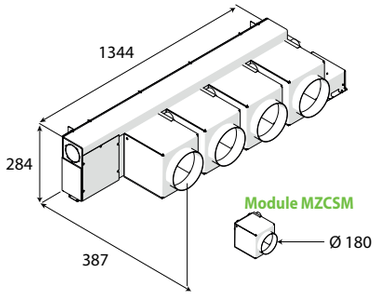
MZC530



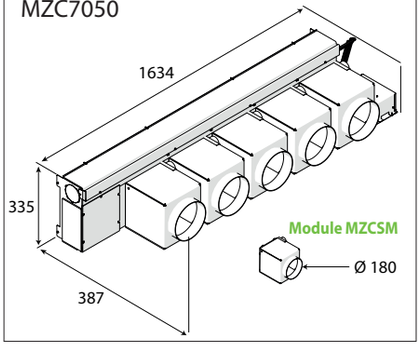
MZC830



MZC5040

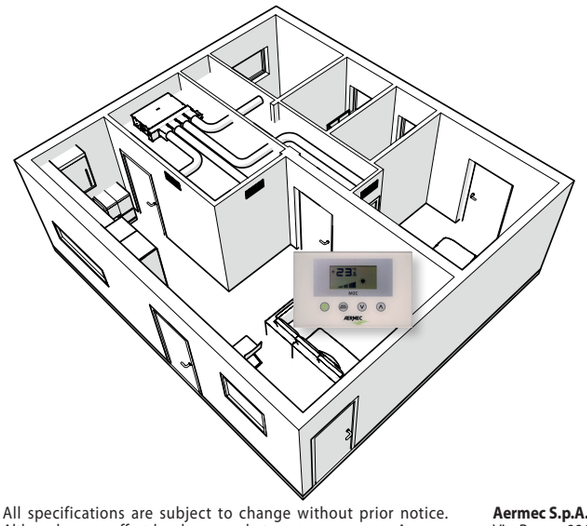


MZC7050

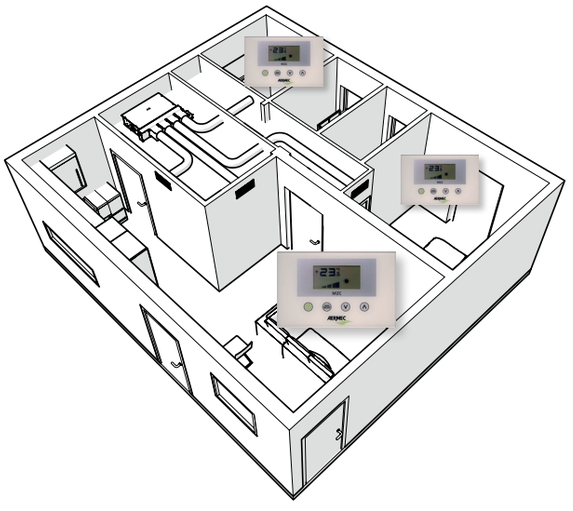


Plant solutions

Solution - with n° 1 **MZCUI zone thermostat**
Supplied as standard



Solution - with n° 3 **MZCUI zone thermostats**
n° 1 Supplied as standard (Master)
n° 2 Accessories (Slave)



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Code: SMZCUY.00 / 1612

Ventilcassaforma

Template for recessed installation of fancoils in the wall

Variable Multi Flow

VMF

CHF
CHU L



Ventilcassaforma has been designed to respond to the needs to rationalise spaces to suit modern interior architecture.

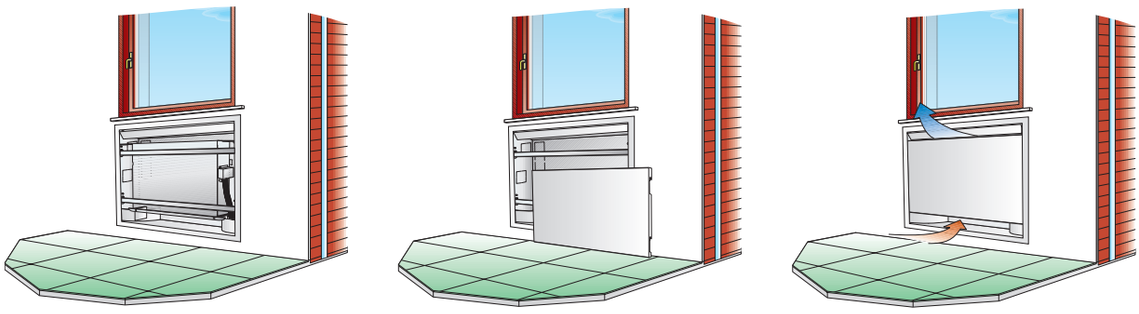
Ventilcassaforma is a galvanised template that makes it possible to make a space to house fan coils in the wall. The template will make masonry work easier during the construction of a niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from view.

Ventilcassaforma is available in two versions with the same characteristics but designed to house fan coils from two different series:

- **CHU-L** for fan coils in the **Omnia UL-P** series
- **CHF** for fan coils in the **FCX-P , FCX-PV** and **FCXI-P** series in 2 pipe systems, 2 pipe systems with resistance and with 4 pipe systems

Features

- Available in two versions for combined fan coils:
  CHU-L: Ventilcassaforma for the OMNIA UL-P series. Available in four sizes
  CHF: Ventilcassaforma for FCX-P , FCX-PV and FCXI-P fan coils. Available in 5 sizes
- **Compatible with VMF System**
- **Ventilcassaforma** is made up of the following parts to be assembled:
- Recess box;
- Closure panel;
- Outer frame with deflector;
- Cover bases, cross-members, covers.
  All parts are made of galvanised steel and treated with epoxy-polyester resin-based thermo-hardening base paint in grey with rough glazed finish in order to hold the paint. The final colour can be chosen by the client.
- **Closure Panel:** Made of galvanised steel, this is the box housing the fan coil. The box is recessed in the wall during building work making the construction of a niche where the fan coils will be installed much easier. Holes for fitting the fan coil and preparing an electric plant with a socket and GEWISS fuse holder are already present on the back panel. The box can accommodate the hydraulic system pipes and condensation drain pipes thanks to the presence of several easily-removable elements on the sides and base.
- **Closure Panel:** made of steel pre-treated with base paint and no slots present. Easily removable for servicing and cleaning the air filter.
- **Outer Frame:** the perimeter of the box has an outer frame made of pre-treated steel making it possible to cover the perimeter part of the wall and hide any imperfections that overtime show possible crumbling on the edge of the plaster work.
- **Deflector:** manual, with which the flow of air can be directed into the room. The deflector is incorporated in the frame.



Ventilcassaforma - Omnia UL combination

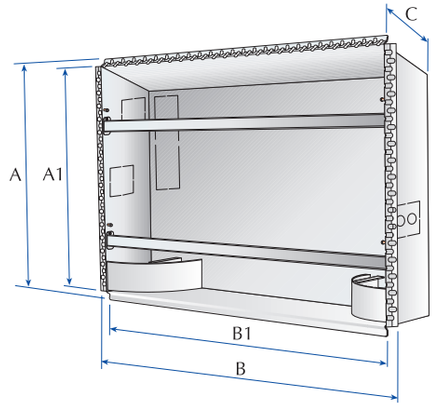
Ventilcassaforma CHU L + Omnia UL combination				
Ventilcassaforma	CHU 12 L	CHU 17 L	CHU 27 L	CHU 37 L
Fan coil	Omnia UL 11 P	Omnia UL 16 P	Omnia UL 26 P	Omnia UL 36 P

Ventilcassaforma CHF - FCX P / FCX PV / FCXI P / FCZ P / FCZI P					
Ventilcassaforma	CHF 17	CHF 22	CHF 32	CHF 42	CHF 62
Fan coil	FCX 17 P FCX 17 PV FCZ 1 P-PPC *	FCX 22 P FCX 22 PV	FCX 32 P - 36 P FCX 32 PV - 36 PV	FCX 42 P - 50 P - 56 P FCX 42 PV - 50 PV - 56 PV	FCX 62 P - 82 P - 102 P FCX 62 PV - 82 PV - 102 PV
		FCX 24 P FCX 24 PV	FCX 34 P FCX 34 PV	FCX 44 P - 54 P FCX 44 PV - 54 PV	FCX 64 P - 84 P FCX 64 PV - 84 PV
		FCXI 20/24 P	FCXI 30/34/36 P	FCXI 40/44 P - 50/54/56 P	FCXI 80/84 P
		FCZ 2 P-PPC-PO *	FCZ 3 P-PPC-PO *	FCZ 4/5 P-PPC-PO *	FCZ 6/7/8/9/10 P-PPC-PO*
		FCZI 2 P *	FCZI 3 P *	FCZI 4/5 P *	FCZI 7/9 P *

The fan coils FCX-P , FCX-PV and FCXI-P can be inserted into 2 pipe systems, 2 pipe systems with resistance and 4 pipe systems
* For fan coils FCZ and FCZI, with 1, 2, 3, 4 .... means all sizes available es. with "1" means 100/101/102/150

Dimensions (mm)

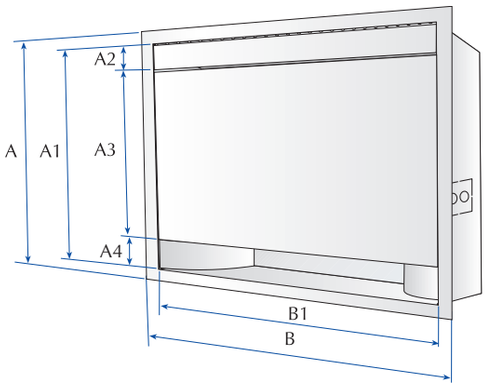
CHU		12 L	17 L	27 L	37 L
Height	A	691	691	691	691
	A1	648	648	648	648
Width	B	692	802	1032	1252
	B1	644	754	984	1204
Depth	C	186	186	186	186



CHF		17	22	32	42	62
Height	A	728	728	728	728	833
	A1	684	684	684	684	789
Width	B	732	842	1073	1293	1414
	B1	684	794	1025	1245	1366
Depth	C	240	240	240	240	240

Outer frame and closure panel

CHU		12 L	17 L	27 L	37 L
Height	A	724	724	724	724
	A1	634	634	634	634
	A2	70	70	70	70
	A3	494	494	494	494
Width	B	713	823	1053	1273
	B1	633	743	973	1193



CHF		17	22	32	42	62
Height	A	760	760	760	760	865
	A1	680	680	680	680	785
	A2	93	93	93	93	93
	A3	493	493	493	493	598
	A4	94	94	94	94	94
Width	B	753	863	1094	1314	1435
	B1	673	783	1014	1234	1355

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Cod.: SVC2UY.09 / 1610

Control panels

Range of control panels for fan coils

• WIDE RANGE OF CONTROL PANELS FOR AN EASY AND COMPLETE CONTROL OF ALL FUNCTIONS OF THE FAN COIL



T-TOUCH e T-TOUCH-I: Touch controller forFCZ, FCZI:
1. 2-pipe systems
2. 4-pipe systems

Features and standard equipment
- Wall-mount installation
- Automatic / manual season change
- Thermostated control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control or continuous adjustment
- Internal air and water probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
Air probe (SWAI)	•	-	•
Water probe (SWAI)	•	-	•

* is possible too handling the Plasmacluster filter, or germicidal lamp, contact us

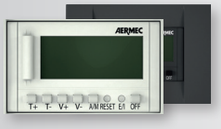


WMT21: Electronic thermostat for inverter fan coils installed in:
1. 2-pipe systems
2. 4-pipe systems

Overall dimensions (mm): H=87 - W=132 - D=31

Features and standard equipment
- Wall-mount installation
- Automatic / manual season change
- Thermostated control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control or continuous adjustment
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
Air probe (SWAI)	•	-	•
Water probe (SWAI)	•	-	•



TPFW (white) or TPF (black): Electronic thermostat with thermostated or continuous ventilation for fan coils in:
1. 2-pipe systems
2. 4-pipe systems

Overall dimensions (mm): H=45 - W=75 - D=46

Features and standard equipment
- Recessed installation (module 503 box)
- Automatic / manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation control
- Internal air probe
- Water probe (supplied)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
Air probe	-	-	-
Electric resistance	-	•	-



PXBI: Control panel for fan coils in:
1. 2-pipe systems with or without valve

Overall dimensions (mm): H=145 - W=70 - D=29

Features and standard equipment
- Fan coil installation
- Manual season change
- Control of up to 1 On/Off valve,
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	-
Cold water valve	•	-	-
SIT3 e SIT5	•	-	-



PXAE: Electronic thermostat with thermostated or continuous ventilation for fan coils in:
1. 2-pipe systems
2. 4-pipe systems

Overall dimensions (mm): H=148 - W=70 - D=27.5

Features and standard equipment
- Wall-mount installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal air probe
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Water probe (SW3)	•	•	•
SIT3 e SIT5	•	•	•



PXAI: Electronic thermostat with thermostated or continuous ventilation for fan coils in:
1. 2-pipe systems
2. 4-pipe systems

Overall dimensions (mm): H=148 - W=70 - D=27.5

Features and standard equipment
- Fan coil installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal water (2.5m) and air (2.3m) probes
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	•	•
SIT3 e SIT5	•	•	•



PXAR: Electronic thermostat with thermostated or continuous ventilation for fan coils in:
1. 2-pipe systems with resistance

Overall dimensions (mm): H=148 - W=70 - D=27.5

Features and standard equipment
- Wall-mount or fan coil installation
- Automatic / manual season change
- Control of up to 1 On/Off valve and 1 resistance
- Temperature and ventilation (3 speeds) control
- Internal air probe
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Cold water valve	-	•	-
SIT3 e SIT5	-	•	-
Water probe (SW3)	-	•	-
Electric resistance	-	•	-



KTLM: Control thermostat kit (remote control and receiver) for fan coils with casing in:
1. 2-pipe systems with or without valve
2. 4-pipe systems with valve

Features and standard equipment
- Even wall-mount installation with the fixing brackets
- Automatic / manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation (3 speeds) control
- Air probe inside the function remote control (IFEEL)
- Air probe supplied for installation in fan coil intake

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-



PTI: Control panel for fan coils in:
1. 2-pipe systems with or without valve

Features and standard equipment
- Fan coil installation
- Automatic / manual season change
- Temperature and ventilation (3 speeds) control
- Internal water (2.5m) and air (2.3m) probes

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	-
Cold water valve	•	-	-
SIT3 e SIT5	•	-	-



PTI4Z: Control panel for fan coils in:
1. 4-pipe systems with valve

Features and standard equipment
- Fan coil installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Air probe inside the remote control
- Internal water probe for the control of the minimum or maximum, depending on the plant

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	-	-	•
SIT3 e SIT5	-	-	-



KTLP: Control thermostat kit (remote control and receiver) for ducted fan coils in:
1. 2-pipe systems with or without valve
2. 4-pipe systems with valve

Features and standard equipment
- Even wall-mount installation with the fixing brackets
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Air probe inside the remote control
- Air probe provided for possible fan coil installation

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-



WMT05: Electromechanical thermostat with thermostated ventilation for fan coils in:
1. 2-pipe systems without valve

Overall dimensions (mm):
H=75 - W=127 - D=25

Features and standard equipment
- Wall-mount installation
- Manual season change
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
SIT3	•	-	-



WMT10: Electronic thermostat with thermostated or continuous ventilation for fan coils in:
1. 2-pipe systems
2. 2-pipe systems with resistance
3. 4-pipe systems

Overall dimensions (mm):
H=75 - W=127 - D=25

Features and standard equipment
- Wall-mount installation
- Manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	•	•
Cold water valve	•	-	•
Resistance	-	•	-



PTI2: Control panel for fan coils INVERTER with case:
1. 2-pipe systems with or without valve
2. 4-pipe systems with valve

Features and standard equipment
- Fan coil installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Air probe inside the remote control
- Internal water probe for the control of the minimum or maximum, depending on the plant

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance*	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-

* is possible too handling the Plasmacluster filter, or germicidal lamp, contact us



PX2: Commutator switch for fan coils in:
1. 2-pipe systems without valve

PX2C6 : Pack of 6 pcs.

Overall dimensions (mm):
H=145 - W=70 - D=29

Features and standard equipment
- Wall-mount or fan coil installation
- Ventilation control (3 speeds)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	-
Cold water valve	-	-	-
SIT3	•	-	-



PX2C6: Commutator (similar to al PX2) switch for fan coils in:
1. 2-pipe systems without valve

PX2C6 : Pack of 6 pcs.

Overall dimensions (mm):
H=145 - W=70 - D=29

Features and standard equipment
- **Wall-mount** installation
- Ventilation control (3 speeds)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	-
Cold water valve	-	-	-
SIT3	•	-	-



WMT06: Electromechanical thermostat with continuous ventilation for fan coils in:
1. 2-pipe systems
2. 4-pipe systems

Overall dimensions (mm):
H=75 - W=127 - D=25

Features and standard equipment
- Wall-mount installation
- Manual season change
- Thermostated control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
SIT3	•	-	-
Resistance	-	•	-



FMT10: Electronic thermostat for fan coils in:
1. 2-pipe systems
2. 2-pipe systems with resistance
3. 4-pipe systems

Overall dimensions (mm):
H=80 - W=118 - D=40

Features and standard equipment
- Wall-mount installation
- Automatic / manual season change
- Control of up to 2 On/Off valves, or 1 valve and 1 resistance
- Temperature and ventilation (3 speeds) control
- Air probe (supplied) to be installed on the fan coil intake

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	•	•
Resistance	-	•	-

(1) for the names of the accessories refer to the fan coil technical sheets.

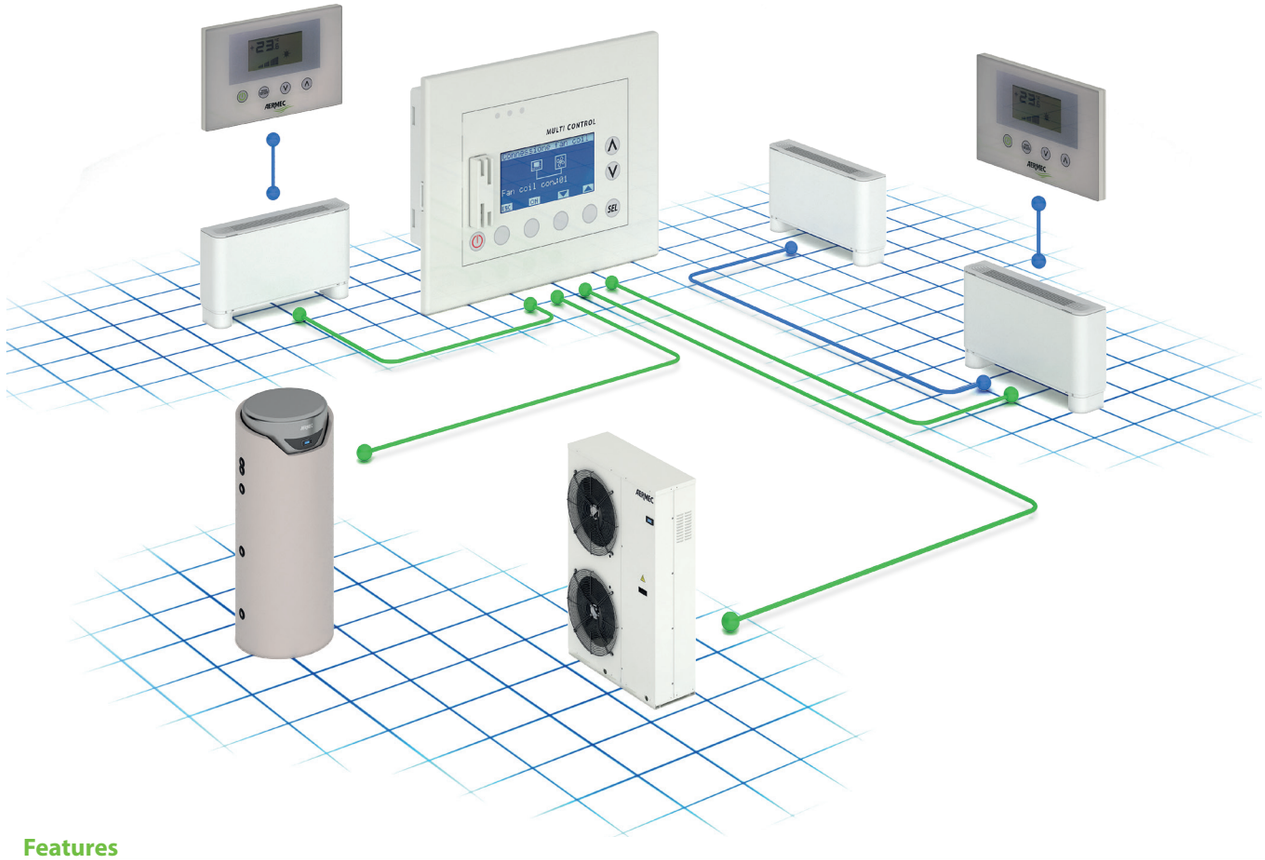
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Code: SPCUY.11 / 1709

VMF

Multi Flow Variable Systems
Range of components for the management of air conditioning, heating and domestic hot water production systems



Features

- **VMF:** Variable Multi Flow System
  Hydronic system management and control unit for air conditioning, heating and domestic hot water production.
  The VMF system ensures the complete control of every single component of a hydronic system, both local and centralised, through communication between the various system components, managing the performance without neglecting the end user's request for comfort at any time, but reaching it as efficiently as possible, with consequent energy savings.
  Summing up the advantages of a such an innovative control with the flexibility of a hydronic system, you achieve a more effective and efficient alternative to variable refrigerant volume (VRF) systems.
  The VMF system is extremely flexible, to the extent that it offers various control and management steps, also expandable at different times:

1) Control of a single fan coil

2) Control of a micro-zone (one MASTER fan coil and up to 5 SLAVE fan coils).

3) Control of a network consisting of several independent zones (one MASTER fan coil and up to 5 SLAVE fan coils per each zone)

4) Control of a fan coil network, plus heat pump management (if compatible with the VMF system)

5) Fan coil network and heat pump control as well as domestic hot water system management (VMF-ACS or SAF)

6) Control of a fan coil network, heat pump, domestic hot water production and additional pumps (up to 12 using 3 additional VMF-CRP modules).

7) Control of a fan coil network, heat pump, domestic hot water production, additional pumps and management of up to 3 heat recovery units (with the possibility to manage up to 3 VMF-VOC probes) or a boiler.

- The VMF system can control and manage, via a VMF-E5N / VMF-E5B panel, up to 64 zones, consisting of a MASTER fan coil and up to 5 SLAVE fan coils connected to each MASTER, for a total of 384 fan coils

- In addition to the centralised control provided by the VMF-E5N / VMF-E5B panel, the MASTER fan coils must be equipped with a local control interface; this interface can be mounted on the fan coil (VMF-E2 / VMF-E2D / VMF-E2H) or on a wall panel (VMF-E4 / VMF-E4D)
- Via panel VMF-E5N / VMF-E5B it is possible to control several functions such as:
  - Identify the various zones by giving each of them a name that characterises it
  - Control and set the ON-OFF function and the temperature setting of each zone
  - Set and manage the heat pump temperature
  - Schedule time slots
- Simple installation of the fan coil network thanks to the SELF-DETECTION function of the MASTER fan coils

System components

CONTROL PANELS

- **VMF-E2:** is a machine-mounted user interface to be combined with VMF-E0X, VMF-E1X and VM-E18X accessories. VMF-E2 has 2 selector switches, one for temperature and the other for speed control.
- **VMF-E2D:** is the machine user interface (just like the previous one) to be combined with VMF-E0X and VMF-E1X accessories, dedicated to the DUALJET range
- **VMF-E2H:** is a machine-mounted user interface (just like the previous one) to be combined with VMF-E0X and VMF-E1X accessories, dedicated to the HL range
- **VMF-E4:** is a wall-mounted user interface to be combined with VMF-E0X, VMF-E1X and VMF-E18X accessories for drawer grids. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment with a panel-mounted sensor probe (standard), or with the fan coil probe to which it is connected, or through mediated reading. It also enables the activation of an air purifier (Plasmacluster / UV lamp) and a heating element.
  Light grey front panel PANTONE COOL GRAY 1C
- **VMF-E4D:** is a variant of the previous code but with a light grey front panel PANTONE 425C (METAL)
- **VMF-E5B:** a white recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: **up to 64** fan coil zones consisting of **1 master + up to 5 slaves**; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on timing and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverting valve/pump, integrated heating element, accumulation temperature sensor, anti-legionella circuit system
- **VMF-E5N:** is a variant of the previous code but with black plastic.
- **VMF-VOC :** an accessory for measuring air quality (see related point in VMF-E5B description).

THERMOSTATS

- **VMF-E0X:**a thermostat accessory to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, **it controls systems with 2 pipes, 4 pipes, 2 pipes + Plasmacluster, 2 pipes + UV lamps, 2 pipes + Heating element.** Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5 slaves). **Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features:**
  - **In systems with two pipes and a heating element, the latter can be activated as a complete replacement, allowing you to warm the environment exclusively with this accessory.**
  - **Dualjet features are available in standard software and can be set via dip switch.**
    The thermostat is protected by a fuse
- **VMF-E1X:** like VMF-E0X plus:
  - Economy contact/presence sensor
  - Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory).
  - Serial RS485, ModBus RTU protocol, for centralised control.
  - Possibility of inserting expansion boards for future developments. The VMF-E1X accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump
  - Compatibility with the VMF-IO accessory
  - Compatibility with VMF-LON expansion board
- **VMF-E18X:** the same as VMF-E1X, but for fan coils with inverter motors
- **VMF-IO: Expansion board that expands the availability of Digital Inputs and Outputs, configurable via dip switches,** thus making it possible to control the thermostat via an external BMS without using a local user interface (e.g. VMF-E2 or VMF-E4). **The expansion board can be used to configure the MODBUS addresses** of the single thermostats included in a system, thus avoiding having to interact with the user interface for allocating an address and, most importantly, in order to replicate the address when replacing thermostats.
- **VMF-LON:** Expansion that allows interfacing with a thermostat with BMS systems using the LON protocol.
- **GLL N:** grid for FCL units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E1X accessory; (this grid is a MANDATORY accessory for FCL units).
- **GLLI N:** grid for FCLI units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E18X accessory; (this grid is a MANDATORY accessory for FCLI units).

PROBES

- **VMF-SW:VMF-SW:** water probe to be used, if necessary, to replace the one supplied as standard with VMF-E0X, VMF-E1X and VMF-E18X thermostats, for installation upstream of the valve
- **VMF-SW1:** extra water probe to be used for 4-pipe systems with VMF-E1X and VMF-E18X thermostats for overall control in the cold range.

MODULES

- **VMF-CRP:** accessory module for the control of the boilers, heat recovery units and pumps
- **VMF-SIT3:** Interface boards that allow connecting thermostats VMF-E0X and VMF-E1X to a fan coil with a high-power motor (for selection, see all the thermostat and fan coil documentation).

ELECTRICAL PANELS FOR DHW (Domestic hot water management for other suppliers' storage tanks)

- **VMF-ACS3KM:** electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated single phase 3kW resistor command, anti-legionella function and temperature sensor)
- **VMF-ACS3KTN:** electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 3kW resistor command, anti-legionella function and temperature sensor)
- **VMF-ACS6KTN:** electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 6kW resistor command, anti-legionella function and temperature sensor)
- **VMF-ACS8KTN:** electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 8kW resistor command, anti-legionella function and temperature sensor)

HEAT STORAGE TANK with integrated domestic hot water management (no need to be combined with a VMF-ACS accessory)

- **SAF:** thermoaccumulator for the instant production of domestic hot water.
  It integrates as a single unit both an energy storage element and a heat exchange one, in addition to various adjustment functions.

CONTROL SYSTEMS

- **VMF-Monitoring:** PC software to monitor and control the operation of one or several VMF controlled systems.
  Through the VMF-485EXP expansion board, the VMF-E5 panel provides the RS485 serial communication port used by the VMF-MONITORING application for controlling the hydronic system.
  The maximum number of controllable systems, each with VMF-E5 and VMF-485EXP expansion, is 10.
- **AERLINK:** Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN.
- **VMF-485EXP:** This accessory, specifically mounted in the VMF-E5 panel, adds an RS485 serial communication port to external supervision (BMS, Aerweb or Aermec supervision systems).

Thermostat compatibility for serial communication and control interfaces for MASTER units

Models	Versions	Notes	VMF-E0X	VMF-E1X	VMF-E18X	VMF-E2Z	VMF-E2D	VMF-E2H	VMF-E4/ VMF-E4D	GLL N	GLLI N
FCZ	DS		•	•	-	-	-	-	-	-	-
	AS-U-UA		•	•	-	•	-	-	•	-	-
FCZI	D		-	-	•	-	-	-	-	-	-
	AS-U		-	-	•	•	-	-	•	-	-
Omnia HL	S-SM		•	•	-	-	-	•	•	-	-
Omnia UL	S		•	•	-	-	-	-	•	-	-
Omnia ULI	S		-	-	•	-	•	-	•	-	-
FCZ_P	P-PPC-PO		•	•	-	-	-	-	•	-	-
FCZI_P			-	-	•	-	-	-	•	-	-
Omnia UL_P			•	•	-	-	-	-	•	-	-
Omnia ULI_P			-	-	•	-	-	-	•	-	-
VED			•	•	-	-	-	-	•	-	-
VED_I			-	-	•	-	-	-	•	-	-
VES			•	•	-	-	-	-	•	-	-
VES_I			-	-	•	-	-	-	•	-	-
VEC			•	•	-	-	-	-	•	-	-
VEC_I			-	-	•	-	-	-	•	-	-
FCL			-	-	-	-	-	-	•	•	-
FCLI			-	-	-	-	-	-	•	-	•
FCW			•	•	-	-	-	-	•	-	-

Heat pump compatibility with electric panel or heat storage tank for domestic hot water management

Models	Versions	Notes	VMF-ACS3KM	VMF-ACS3KT	VMF-ACS6KT	VMF-ACS8KT	SAF (4)
ANL	H		•	•	•	•	•
ANLI	H		•	•	•	•	•
ANK	H		•	•	•	•	•
NRK	H		-	-	-	-	-
CL	H		-	-	-	-	-
ANKI	H		•	•	•	•	•
WRL	H		•	•	•	•	•

Modules and additional probes compatibility

Models	Versions	Notes	VMF-CRP	VMF-VOC	VMF-SIT3
VMF-E5N/ E5D	All	(1) (2)	•	• (2)	
VED	All	(3)			•
RePuro		(1) (2)	•	• (2)	

Control system compatibility

Models	GLL N	GLLI N	VMF-E1X	VMF-E18X
VMF-E5	•	•	•	•
VMF-IO	•	•	•	•
VMF-LON	•	•	•	•

Notes:

(1) All system types including VMF-E5N / VMF-E5B centralised control are compatible with VMF-CRP accessory modules (up to 4); each module can perform the pump control function (4 pumps for each accessory module) or boiler and recovery unit control (with ON/OFF boiler and HRS management and management of 3 recovery units plus 3 VMF-VOC accessories).

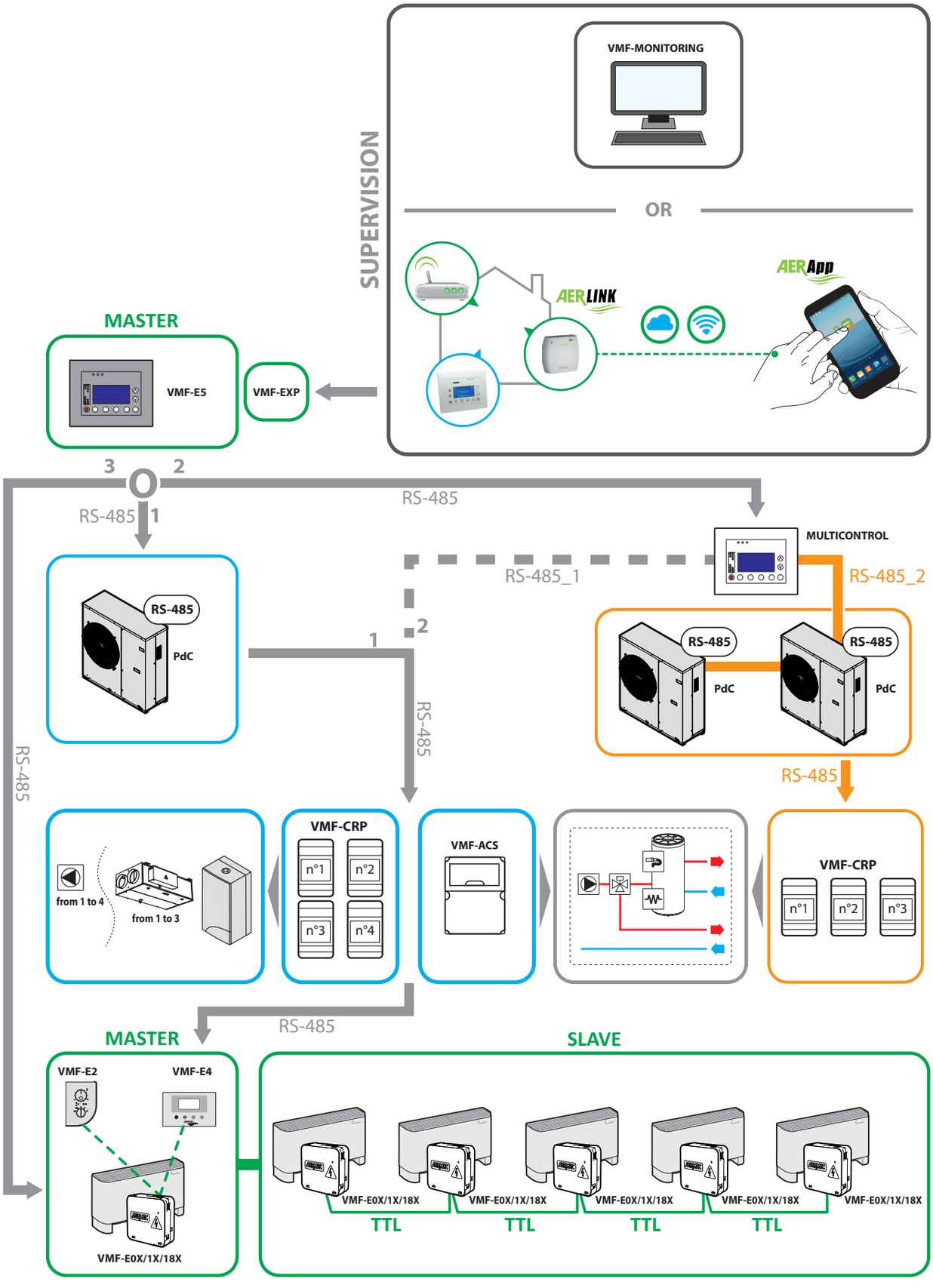
(2) The compatibility of the VMF-VOC probe is only related to the presence of the VMF-CRP accessory module in the system with a recovery unit control function.

(3) Mandatory accessory for combining VED units with VMF-E0X or VMF-E1X thermostats. Use a VMF-SIT3 for each unit.

(4) The SAF heat storage tank manages DHW independently. So, if included, integrating the VMF-ACS electrical panel into the VMF system is required.

For the dimensions of the accessories, please refer to the dedicated documentation.

Example of system components



Code: SVMFUI.10 / 1709

Aermec reserves the right to make all the changes deemed necessary for improving the product, including technical data.

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Numero Verde 800-843085

HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential. The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served. The catalogued range of nominal available air flow rates is from 100 to around 16.100 m^3/h.

HEAT RECOVERY UNITS

			Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	REPURO	With cross-flow exchanger	100-650	-	-	126
new	**TRS**	with enthalpy exchanger	170-1180	-	-	134
new	**RPLI**	Countercurrent flow heat recovery unit inverter	200-3900	-	-	136
new	**RTD**		1100-3200	-	-	140
	RPF	High performance version	200-4600	-	-	144
	URX_CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	148
	URHE_CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	152
	ERSR	High efficiency version with rotary recovery exchanger	1100-16100	-	-	156

RePuro

Heat recovery unit





90% high efficiency

Plasmacluster

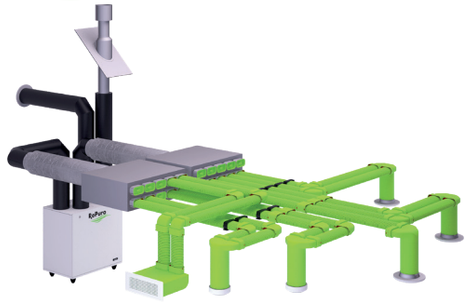
A

maximum Efficiency
Seasonal energy
(See Technical Data)

Variable Multi Flow

VMF

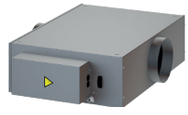
RePuroDistribution



Aermec RePuroDistribution
This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and confortable in all its cycle of life.
Examples of plenums for air distribution, which could be equipped of: electric heater, germicidal lamp, water-exchanger.



PLS
with multi-way flange



PLS_M
with one-way flange

Characteristics

RePuro is an innovative counter-flow heat recovery system which ensures the correct renewal of air to indoor environments.
Through the use of up to 90% high efficiency heat exchangers **RePuro** allows the introduction of fresh air at a temperature close to that of the room concerned, reducing energy costs that would be incurred in exchanging the air in traditional ways or by mechanical ventilation alone.
PLASMACLUSTER ionising filter. Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. The result is in the air: you can finally breath clean, odour-free ionised air.

• **Version**
RePuro standard
RePuro_R with electric pre-heater for continuous operation in cold climates up to -15°C.

• **Installation**
Wall installation and ceiling: (100÷170)
upright (250÷650)

- Heat exchanger with hexagonal shape to increase the surface area.
- Heat exchanger easily removed from the front for cleaning or replacement.
- Casing in galvanised sheet steel with internal insulation.
- Standard filter on fresh air G4
- Standard filter on extract air G2.
- Filters can be removed for cleaning or replacement.
- All units are equipped with frost protection system for climates > -10°C .
- High efficiency of 90% and above (UNI EN 308).
- Free-cooling in mid-seasons through the automatic by-pass function (RePuro 250-350-450-550-650).

• **By-pass** no frost (RePuro 450-550-650)

- Ionizer filter **PLASMACLUSTER** as standard.
- Flow rate control 0-100% of nominal air flow rate.
- Direct drive centrifugal fans, with "Brushless" EC high efficiency variable speed electric motors (ERP2015).
- Microprocessor controller with interface capability to the VMF System.
- Monitoring of the units with remote wired control panel (supplied as standard). Innovative design, extremely slim, allows control of functions via a touch keypad with LCD display.
  The panel cable is 6 metres long supplied as standard.
  Activation of the electric heater in the RePuro_R version. Front in light grey colour PANTONE COOL GRAY 1C.
- Easy to wall mount with standard supplied mounting plate, or floor mount with anti-vibration mounts AVM accessory.
- Adaptable to existing systems.
- Compact size.
- Quiet operation.
- **The installation requires a condensate drain system.**

Accessories

- **AVM** : Anti-vibration mounts
- **SSR** : Bearing bracket (RePuro 250-350-450-550-650)
- **FF7** : Air filters for fresh air with F7 efficiency
- **KSAE** : External air temperature sensor
- **PLS** : Plenum with acoustic lining equipped with multi-way flange to ensure a uniform distribution in all treated areas.
  The plenum is configured with:
  - **PLS_E** electric heater
  - **PLS_L** germicidal lamp
  - **PLS_W** water coil (requires accessory valve)
- **PLSM** : Plenum with acoustic lining equipped with one-way flange.
  IThe plenum is configured with:
  - **PLSM_E** electric heater
  - **PLSM_L** germicidal lamp
  - **PLSM_W** Plenum with acoustic lining equipped with one-way flange)
- **VCH** : Kit consisting of powered 3-way valve, copper couplings and pipes. Combined with the accessory PLS/PLSM in the configuration with the water heat exchanger. In cooling recovery it requires an accessory tray BC.
- **VCHR** : such as VCH, but with isolation as.
- **VCHD** : such as VCH, but with 2-way valve instead of 3-way one.
- **BC** :Auxiliary condensate drip tray.
  BC10 for vertical installation.
  BC20 for horizontal installation.
- **VMF-E5B :** White recessed panel, with backlit graphic LCD and touch keypad allowing the centralised command/control of a complete hydronic system consisting of:
  - Heat recovery units: up to 3 outputs for heat recovery units programmed according to time-clocks and/or by measuring the air quality obtained with the VMF-VOC accessory;
  - Fan coil units: up to 64 fan coil zones comprising 1 master + maximum 5 slaves;
  - Chiller/heat pump unit equipped with controls Modu_Control, GR3 and pCO^2 / pCO^3 (required accessory RS 485 interface respectively MODU-485A, AER485, AER485P2 / AER485P1),
  - Circulators: maximum of 12 configurable zone circulators;
  - Boiler: boiler enable for hot water production;
  - Domestic hot water module: complete management of the production of domestic hot water through the control of diverting valve/circulator, immersion heater, storage tank temperature sensor, anti-legionella cycle.
- **VMF-E5N :** Variant of the **VMF-E5B** panel but with black coloured plastic.
- **VMF-VOC :** Accessory for measuring air quality (see relevant point in the description of the VMF-E5B panel).
- **VMF-CRP** : Accessory module for the control of the boilers, pumps and heat recovery units.

Mod. RePuro	Vers.	100	170	250	350	450	550	650
AVM	All	-	-	•	•	•	•	•
SSR	All	-	-	•	•	•	•	•
FF7	All	170	170	350	350	650	650	650
KSAE	All	•	•	•	•	•	•	•
Delivery plenum with multiway flange								
PLS350		•	•	•	•	-	-	-
PLS350W	(1)	•	•	•	•	-	-	-
PLS350E		•	•	•	•	-	-	-
PLS350L		•	•	•	•	-	-	-
PLS350WE	(1)	•	•	•	•	-	-	-
PLS350WL	(1)	•	•	•	•	-	-	-
PLS350WLE	(1)	•	•	•	•	-	-	-
PLS350LE		•	•	•	•	-	-	-
PLS650		-	-	-	-	•	•	•
PLS650W	(1)	-	-	-	-	•	•	•
PLS650E		-	-	-	-	•	•	•
PLS650L		-	-	-	-	•	•	•
PLS650WE	(1)	-	-	-	-	•	•	•
PLS650WL	(1)	-	-	-	-	•	•	•
PLS650WLE	(1)	-	-	-	-	•	•	•
PLS650LE		-	-	-	-	•	•	•
Delivery plenum with one-way flange								
PLSM350		•	•	•	•	-	-	-
PLSM350W	(1)(2)	•	•	•	•	-	-	-
PLSM350E		•	•	•	•	-	-	-
PLSM350L		•	•	•	•	-	-	-
PLSM350WE	(1)(2)	•	•	•	•	-	-	-
PLSM350WL	(1)(2)	•	•	•	•	-	-	-
PLSM350WLE	(1)(2)	•	•	•	•	-	-	-
PLSM350LE		•	•	•	•	-	-	-
PLSM650		-	-	-	-	•	•	•
PLSM650W	(1)(2)	-	-	-	-	•	•	•
PLSM650E		-	-	-	-	•	•	•
PLSM650L		-	-	-	-	•	•	•
PLSM650WE	(1)(2)	-	-	-	-	•	•	•
PLSM650WL	(1)(2)	-	-	-	-	•	•	•
PLSM650WLE	(1)(2)	-	-	-	-	•	•	•
PLSM650LE		-	-	-	-	•	•	•
Kit for plenum								
VCH	(3)	•	•	•	•	•	•	•
VCHR	(3)	•	•	•	•	•	•	•
VCHD	(3)	•	•	•	•	•	•	•
BC10		•	•	•	•	•	•	•
BC20		•	•	•	•	•	•	•
VMF-system								
VMF-CRP		•	•	•	•	•	•	•
VMF-VOC		•	•	•	•	•	•	•
VMF-E5N		•	•	•	•	•	•	•
VMF-E5B		•	•	•	•	•	•	•

(1) Combination with three-way valve kit required.
(2) If you intend to use all the after-heating coil system, or in all the situations in which the air temperature inside the pipe could provoke condensation on external surfaces of pipe, it is mandatory to isolate adequately the installation components.
(3) in the cold-functioning they require the accessory BC10 o 20

Technical data

Mod.		RePuro	100	170	250	350	450	550	650
Nominal air flow rate		m^3/h	100	170	250	350	450	550	650
Available static pressure		Pa	85	20	195	133	100	120	70
Winter recovery efficiency		%	94,4	91,2	91,9	89,4	90,3	88,6	87
Recovered heating capacity		W	957	1573	2329	3171	4118	4940	5734
Winter recovery efficiency	(1)	%	90,6	85,3	86,3	82,2	83,7	81	78,4
Recovered heating capacity	(1)	W	601	963	1433	1910	2500	2957	3386
Summer recovery efficiency		%	90,6	85,3	86,4	82,2	83,7	81	78,5
Recovered cooling capacity		W	180	289	430	573	750	887	1015
Nominal air flow rate	(2)	m^3/h	75	125	150	200	300	350	450
Available static pressure		Pa	135	110	331	376	210	300	270
Winter recovery efficiency		%	95,7	93,2	94,8	93,3	93	92,1	90,3
Recovered heating capacity		W	728	1181	1441	1891	2830	3267	4118
Winter recovery efficiency		%	92,7	88,6	91,1	88,6	88,2	86,6	83,7
Recovered heating capacity		W	462	735	908	1177	1758	2014	2500
Summer recovery efficiency		%	92,7	88,6	91,2	88,7	88,3	86,7	83,7
Recovered cooling capacity		W	138	220	272	353	527	604	750
Nominal air flow rate	(2)	m^3/h	50	75	75	100	150	175	200
Available static pressure		Pa	185	210	426	526	310	430	485
Winter recovery efficiency		%	97	95,7	97,2	96,4	96,2	95,7	95,1
Recovered heating capacity		W	492	728	739	977	1463	1697	1928
Winter recovery efficiency	(1)	%	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered heating capacity	(1)	W	315	462	475	623	932	1077	1218
Summer recovery efficiency		%	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered cooling capacity		W	95	138	142	187	280	323	365
GENERAL DATA									
SEC		kWh/(m²a)	-36	-38	-37	-40	-40	-40	-40
CLASS			A	A	A	A	A	A	A
Maximum power input		W	45	65	160	180	220	280	360
Power supply		V/ph/Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz

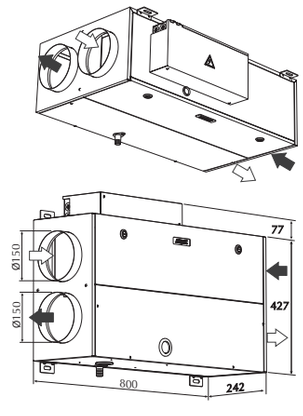
Winter recovery
Exhaust air temperature 20°C b.s. 50% u.r.; Fresh air temperature -10°Cb.s. 80%u.r.
(1) Exhaust air temperature 25°C b.s. 27% u.r.; Fresh air temperature 5°Cb.s. 50%u.r. **(UNI EN308)**

Summer recovery
Exhaust air temperature 26°C b.s. 50% u.r.; Fresh air temperature 32°Cb.s. 50%u.r.
(2) capacities obtained with air flows different from nominal ones.

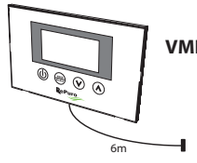
Dimensions (mm)

Extract air

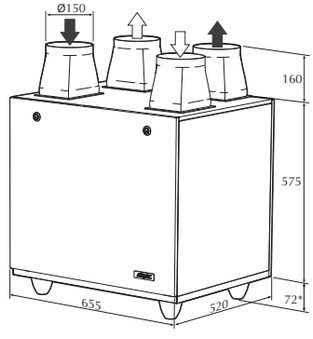
Fresh air



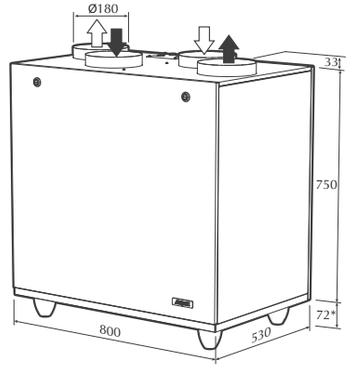
RePuro 100 - RePuro 170



VMF-E4 RePuro



RePuro 250 - RePuro 350



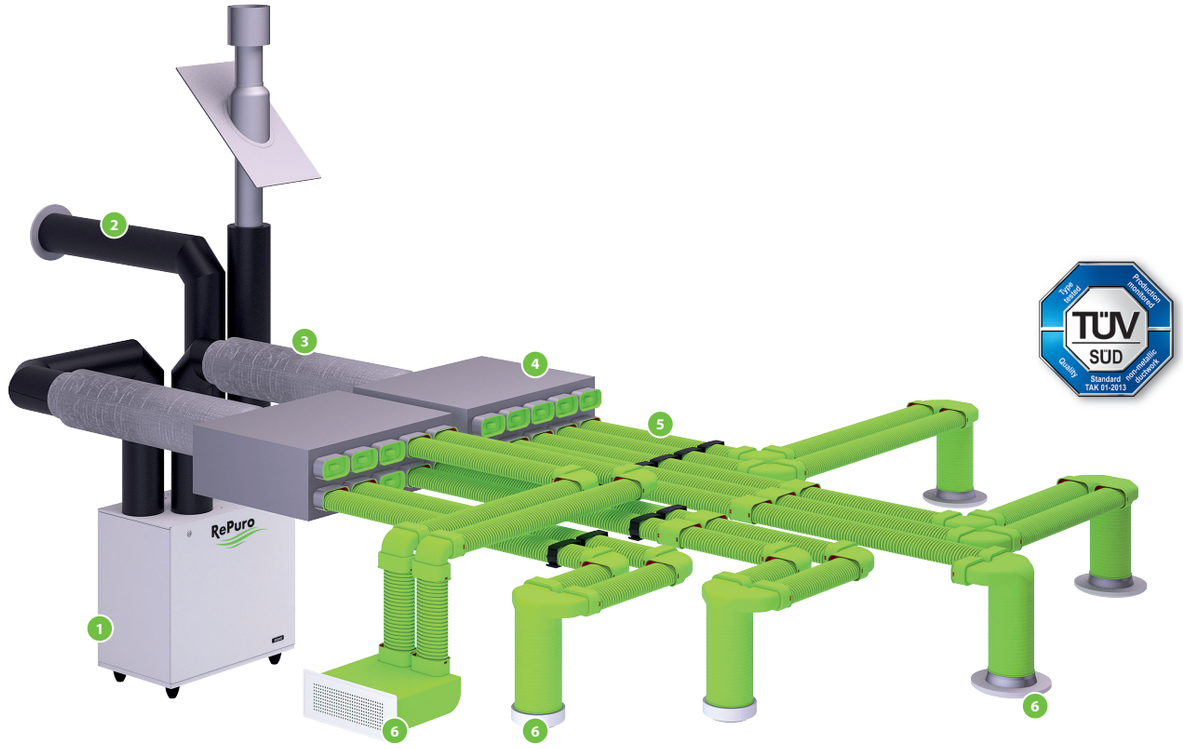
RePuro 450 - RePuro 550 - RePuro 650

* = with AVM accessory

Mod. RePuro		Vers.	100	170	250	350	450	550	650
Weight	(kg)	all	25	25	48	48	55	55	55

RePuroDistribution

Aermec RePuroDistribution
This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and confortable in all its cycle of life.



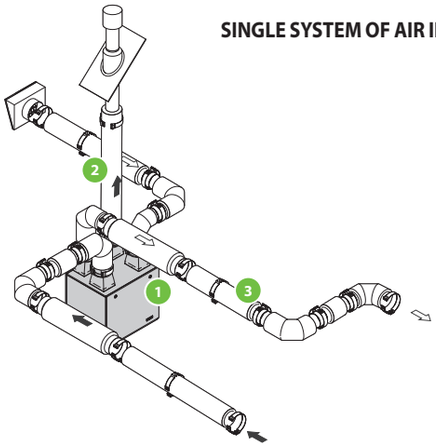
- **EASY "PLUG & PLAY" INSTALLATION**
- **LOW DUCT HEIGHT FOR IN–WALL AND SCREED–FLOOR APPLICATION**
- **ANTI–STATIC AND ANTI–BACTERIAL PROPERTIES**
- **LONG–TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS**
- **THE DUCT SEMI–OVAL IS CERTIFIED TÜV**

Please note:
The picture shows as and indication only an example of an installation with semi-oval, semi-rigid antibacteric ducts, composed by:

1. heat recovery unit RePuro
2. Duct with external air intake/expulsion
3. Interconnection between RePuro and distribution box
4. Distribution box
5. Air distribution with semi-oval semi-rigid antibacterial ducts.
6. Terminals with nozzles and design grilles

The Aermec range in addition to point n. 5, provides two other air distribution system:
- air distribution with round semi-rigid ducts;
- air distribution with rigid rectangular ducts.

RePuroDistribution



SINGLE SYSTEM OF AIR INLET AND EXHAUST CONNECTED TO REPURO

1. Heat recovery unit RePuro
2. Ducts with external air intake/expulsion
3. Interconnection between RePuro and distribution plenum



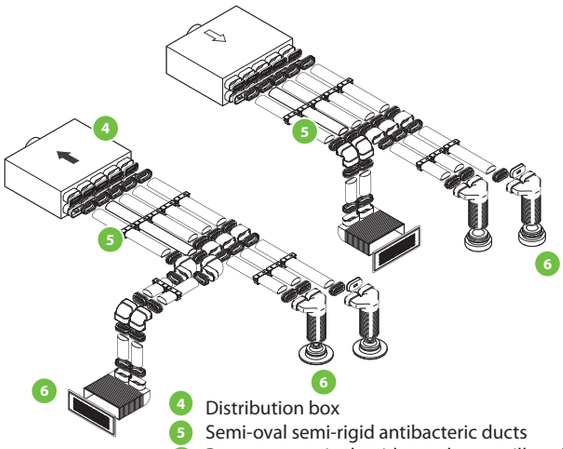
Some examples of the components

		n° in to package	RePuro 100	170	250 250R	350 350R	450 450R	550 550R	650 650R
COMPONENTS FOR EXTERNAL AIR INTAKE/EXPULSION SYSTEM									
TV-150	vertical black roof terminal DN150	1	•	•	•	•	-	-	-
T25-150	Underlay for pitched roofs 5-25° DN150	1	•	•	•	•	-	-	-
T45-150	Underlay for pitched roofs 25-45° DN150	1	•	•	•	•	-	-	-
T55-150	Underlay for pitched roofs 35-55° DN150	1	•	•	•	•	-	-	-
TP-150	Rose window deal for flat roofs DN150	1	•	•	•	•	-	-	-
TAP-150B	Suction wall terminal white DN150	1	•	•	•	•	-	-	-
TAP-150N	Suction wall terminal black DN150	1	•	•	•	•	-	-	-
CCI-150	Insulated duct L=2000mm - DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Clip locking collar for ducts DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
TV-180	Terminal with vertical black roof DN180	1	-	-	-	-	•	•	•
T45-180	Underlay for pitched roofs 25-45° DN180	1	-	-	-	-	•	•	•
TP-180	Rose window deal for flat roofs DN180	1	-	-	-	-	•	•	•
TAP-180B	Suction wall terminal white DN180	1	-	-	-	-	•	•	•
TAP-180N	Suction wall terminal black DN180	1	-	-	-	-	•	•	•
CCI-180	insulated duct L=2000mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Locking collar joint DN180	16	-	-	-	-	•	•	•
CLF-180	Collare di fissaggio giunto - canale DN180	16	-	-	-	-	•	•	•
SC-180	Silencer L=1500mm - DN180	1	-	-	-	-	•	•	•
COMPONENTS OF INTERCONNECTIONS BETWEEN RePuro UNITS, PLENUM AND SILENCERS									
CCI-150	Insulated duct L=2250mm DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Duct clip joints DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
CCI-180	Insulated duct L=2250mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Duct clip joint DN180	16	-	-	-	-	•	•	•
CLF-180	Locking collar joint - duct DN180	16	-	-	-	-	•	•	•
SC-180	Silenziatore L=1500mm - DN180	1	-	-	-	-	•	•	•

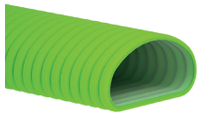
Please note: For further informations on the typologies of installations and of accessories, please referr to the dedicated documentation available on Aermec website www.aermec.com.

RePuroDistribution

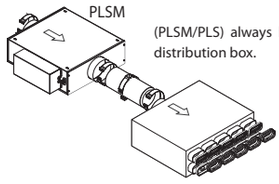
DISTRIBUTION SYSTEM WITH SEMI-OVAL SEMI-RIGID ANTIBACTERIC DUCTS



4 Distribution box
5 Semi-oval semi-rigid antibacteric ducts
6 Recovery terminals with nozzles or grilles of design



Aermec, offers the possibility of any post-treatment, of mono-multi flange delivery plenum (PLSM/PLS) with different combinable accessories :
- Electric heater
- Germicidal lamp
- Water exchanger



(PLSM/PLS) always has to be installed before distribution box.

n° in to package	RePuro						
	100	170	250 250R	350 350R	450 450R	550 550R	650 650R

COMPONENTS OF DISTRIBUTION SEMI-OVAL SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY .									
BDX6-150	Distribution box 6 nozzles with deadening DN150	1	•	•	•	•	•	•	•
BDSX10-150	Distribution box 10 noozles with deadening and silencer bafflers DN150	1	•	•	•	•	•	•	•
BDX12-150	Distribution box 12 nozzles with deadening DN150	1	•	•	•	•	•	•	•
BDSX15-180	Distribution box 15 nozzles with deadening and silencer bafflers DN180	1	-	-	-	-	•	•	•
CO30	Semi-oval semi-rigid antibacteric duct L=30	1	•	•	•	•	•	•	•
CO50	Semi-oval semi-rigid antibacteric duct L=50m	1	•	•	•	•	•	•	•
RDP	Flow regulator for semi-oval semi-rigid antibacteric ducts	10	•	•	•	•	•	•	•
SMC	Mounting bracket for semi-oval semi-rigid antibacteric ducts	10	•	•	•	•	•	•	•
ADT	Sealing ring for semi-oval semi-rigid antibacteric ducts	8	•	•	•	•	•	•	•
CVO	Vertical curve for semi-oval duct	3	•	•	•	•	•	•	•
COO	Horizontal curve for semi-oval semi-rigid antibacteric ducts	2	•	•	•	•	•	•	•
TO	Cap for semi-oval semi-rigid antibacteric ducts	5	•	•	•	•	•	•	•
GCO	Joint for semi-oval semi-rigid antibacteric ducts	4	•	•	•	•	•	•	•
GOO90	90° curve to attach semi-oval semi-rigid antibacteric ducts with round semi-rigid ducts.	1	•	•	•	•	•	•	•
AD125X2	Adaptor for nozzle(x 2) - DN125	1	•	•	•	•	•	•	•
CGP	Collector for flat grille (x 2) - (309x86)	1	•	•	•	•	•	•	•
ADG	Adaptor for grille (140x140)	1	•	•	•	•	•	•	•

TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE

Some examples


GRM

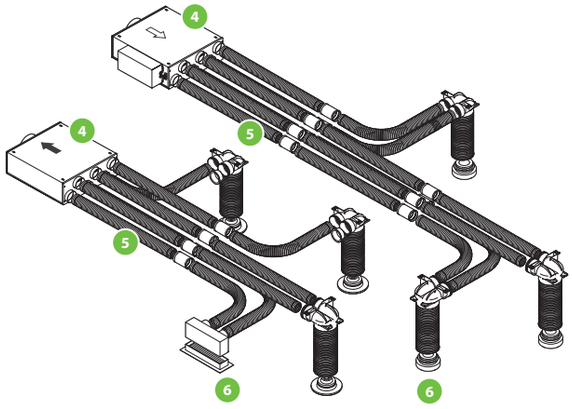

BIM125


GRRM

Please note: For further informations on the typologies of installations and of accessories, please referr to the dedicated documentation available on Aermec website www.aermec.com

GRM	Painted steel grille RAL9010	1	•	•	•	•	•	•	•
GRAI	Stainless steel grille	1	•	•	•	•	•	•	•
BES-125	Extraction nozzle DN 125	6	•	•	•	•	•	•	•
BIM-125	Input nozzle DN125	3	•	•	•	•	•	•	•
TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE									
GRQM	Square grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRRM	Rectangular grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRQB	Square grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRB	Rectangular grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRQL	Square grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRL	Griglia rettangolare con alette verticali orientabili alluminio	1	•	•	•	•	•	•	•

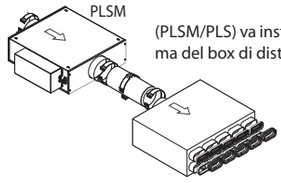
DISTRIBUTION SYSTEM WITH ROUND SEMI-RIGID DUCTS



4 Distribution box
5 Semi-rigid round ducts
6 Recovery terminals with nozzles and design grilles



Aermec offers the opportunity for an eventual after-treatment of intake plenum mono-multi flange (PLSM/PLS) with different combinable accessories:
- Electric heater
- Germicidal lamp
- Water exchanger

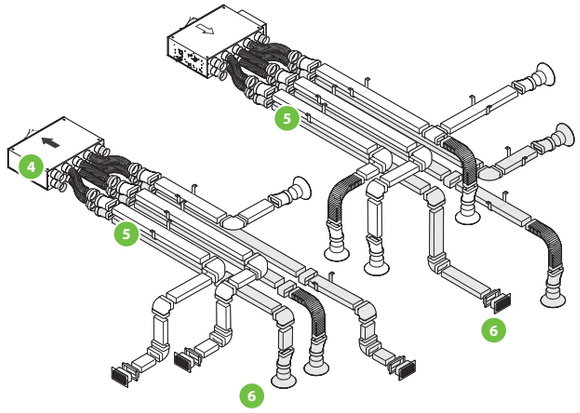


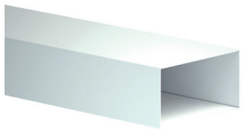
(PLSM/PLS) va installato sempre prima del box di distribuzione

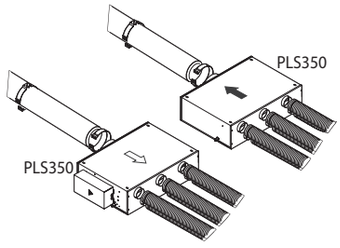
	n° in to package	RePuro						
	package	170	250 250R	350 350R	450 450R	550 550R	650 650R	
COMPONENTS FOR DISTRIBUTION ROUND SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY								
BDX6T-150	Deadening Distribution box with 6 nozzles Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
BDX10T-150	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
BDSX10T-150	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
BDSX15T-180	Distribution box 15 nozzles with deadening and silenced septa Ø75 (internal) - DN180	1	-	-	-	-	•	•	•
CT50	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	•	•	•	•	•	•	•
CT50AB	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m Antistatic and antibacteric	1	•	•	•	•	•	•	•
RDPT	Flow regulator for round ducts	10	•	•	•	•	•	•	•
AD125X2T	Adaptor for nozzles 2xØ75mm - DN125	1	•	•	•	•	•	•	•
ADTT	Sealing ring for round ducts Ø75mm	10	•	•	•	•	•	•	•
TCT	Cap for round ducts Ø75mm	5	•	•	•	•	•	•	•
GCT	Joint for round ducts Ø75mm	4	•	•	•	•	•	•	•
ADGR2T	Adatptor for rectangular grille 2xØ75mm (external)	1	•	•	•	•	•	•	•
ADGQ1T	Adaptor for rectangular grille 1xØ75mm (external)	1	•	•	•	•	•	•	•
TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE								
Some examples								
 **GRM**  **BIM125**  **GRRM**	**Please note: For further informations on the typologies of installations and of accessories, please referr to the dedicated documentation available on Aermec website www.aermec.com**							
GRM	Metal grille RAL9010	1	•	•	•	•	•	•	•
GRAI	Steinless steel grille	1	•	•	•	•	•	•	•
BES-125	Extraction nozzle DN 125	6	•	•	•	•	•	•	•
BIM-125	Input nozzle DN125	3	•	•	•	•	•	•	•
TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE								
GRQM	Square grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRRM	Rectangular grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRQB	Square grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRB	Rectangular griille with horizontal and vertical swinging aluminium fins.	1	•	•	•	•	•	•	•
GRQL	Square grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRL	Rectangular grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•

RePuroDistribution

DISTRIBUTION SYSTEM WITH RECTANGULAR RIGID DUCTS







In this system Plenum PLS can be used also as a simple distribution box without any accessory for post-treatment.

4 **distribution Plenum PLS**
5 Rectangular rigid ducts
6 Recovery terminals with nozzles and design grilles

		n° in to package	RePuro						
			100	170	250 250R	350 350R	450 450R	550 550R	650 650R
COMPONENTS FOR RECTANGULAR RIGID DISTRIBUTION WITHIN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND INTAKE									
CPR	Rectangular flat duct 55x110x2000mm	6	•	•	•	•	•	•	•
GRT	Rectangular joint 55x110mm	5	•	•	•	•	•	•	•
CRT	Rectangular terminal frame 55x110mm	4	•	•	•	•	•	•	•
ARC	Rectangular/Circular adaptor 55x110mm/ Ø100	6	•	•	•	•	•	•	•
GRCV90	Vertical crank 90° Rectangular Circular Adaptor55x110mm	4	•	•	•	•	•	•	•
GRO45	Crank 45° Rectangular Horizontal 55x110mm	8	•	•	•	•	•	•	•
GRO90	Crank 90° Rectangular Horizontal 55x110mm	8	•	•	•	•	•	•	•
GRV90	Crank 90° rectangular vertical 55x110mm	6	•	•	•	•	•	•	•
TR	Rectangular terminal cap	4	•	•	•	•	•	•	•
RMC100	Multi-cone reducer Ø100 - Ø80	4	•	•	•	•	•	•	•
RMC125	Multi-cone reducer Ø125 - Ø100	4	•	•	•	•	•	•	•
RTR	Rectangular T joint 55x110mm	3	•	•	•	•	•	•	•
CR	Rectangular collar 55x110mm	10	•	•	•	•	•	•	•
MFR	Rectangular flexible sleeve 55x110x500mm	1	•	•	•	•	•	•	•
CT50	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	•	•	•	•	•	•	•
CT50AB	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m Antistatic and antibacteric	1	•	•	•	•	•	•	•
RDPT	Flow regulator for round ducts	10	•	•	•	•	•	•	•
ADTT	Sealing ring for round ducts Ø75mm	10	•	•	•	•	•	•	•
CPVC	Glue for PVC	2	•	•	•	•	•	•	•
NAL	Aluminium tape 50x0,3mm Lenght= 50m	5	•	•	•	•	•	•	•
ACCESSORIES FOR AIR DIFFUSION AND RECOVERY									

Some examples


BA


BCI


GRIR

Please note: For further informations on the typologies of installations and of accessories, please referr to the dedicated documentation available on Aermec website www.aermec.com

GRIR	Rectangular template grille 55x110mm	6	•	•	•	•	•	•	•
GRIC	Circular template grille Ø100mm	10	•	•	•	•	•	•	•
BCI	Circular template nozzle with net Ø100mm	10	•	•	•	•	•	•	•
BFR	Self-adjusting template nozzle Ø100mm	6	•	•	•	•	•	•	•
BA30	Self-adjusting nozzle 30m^3/h Ø125mm	5	•	•	•	•	•	•	•
BA60	Self-adjusting nozzle 60m^3/h Ø125mm	5	•	•	•	•	•	•	•

Please note: For further informations on the typologies of installations and of accessories, please referr to the dedicated documentation available on Aermec website www.aermec.com.

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Cod.: SREPUY.09 /1602

TRS

Heat recovery unit with enthalpy exchanger



TRSPTS

• QUICK AND EASY INSTALLATION
• FANS COUPLED TO BRUSHLESS DC MOTORS WITH LOW ENERGY CONSUMPTION

Features

The TRS heat recovery units allow to join maximum environmental comfort with sure energy saving. Forced ventilation must be created in current air conditioning and treatment plants, which leads to the expulsion of treated air, determining large energy consumption and increase in costs.
TRS intends to solve these problems using a static heat recovery unit that saves most of the energy that would otherwise be lost.
The unit adopts high-efficiency heat recovery with countercurrent flows which consists of flat sheets of special paper **that allow you to recover both sensible and latent heat (humidity)**.
No condensation forms by adopting the enthalpy recovery unit: part of the humidity in a flow of air is absorbed by the porous surface and is then transferred completely to the opposite air flow. **Therefore, no condensate drip tray or the relative drain pipe is required**. The high static pressures available allow ducts to be mounted, thereby allowing the extraction or input of air across multiple environments simultaneously.

- Very compact units **that can only be installed horizontally,** which require simple maintenance of the heat exchanger and filters (both removable from the side).
- Automatic free-cooling function.
- Free-cooling in mid-season thanks to the automatic by-pass function.
- Centrifugal fans with Brushless EC motor, with the possibility to adjust the speed on 10 different **levels through the obligatory accessory TRSPTS, touch screen control panel**
  In the absence of this accessory it will only be possible, by acting on the remote on-off contact, to operate the fans always at maximum speed.
- Built-in electrical panel with electronic board for the control of ventilation and free-cooling functions.
- Hexagonal-shaped enthalpy recovery unit to increase the exchange surface.
- Galvanised sheet metal self-supporting panels with insulation.
- Air filters, in efficiency class F9 (with G3 prefilter) on the fresh air, G3 filter on the return flow.
- Pressure switch with integrated dirty filter signal.
- Silent operation.
- The installation does not require a condensate drain system.

Accessories

The following accessories are available for complete control of the TRS recovery units:

- **TRSCP1**: **Flush control panel with an LCD display** to control the On-Off, speed selection, programmable weekly timer and the automatic Free-Cooling functions. IR receiver for coupled operation with the IR remote control accessory.
  Wall installation recessed in supplied electrical junction boxes "module 502".
- **TRSCPR1**: **Remote control and flush control panel with an LCD display** to control the On-Off, speed selection, programmable weekly timer and the automatic Free-Cooling functions. IR receiver for coupled operation with the IR remote control accessory.
  Wall installation recessed in supplied electrical junction boxes "module 502".
- **TRSPTS**: Control panel with Touch Screen.
- **TRSQSW**: Wall CO_2 probe.
- **TRSUSW**: Wall humidity probe.

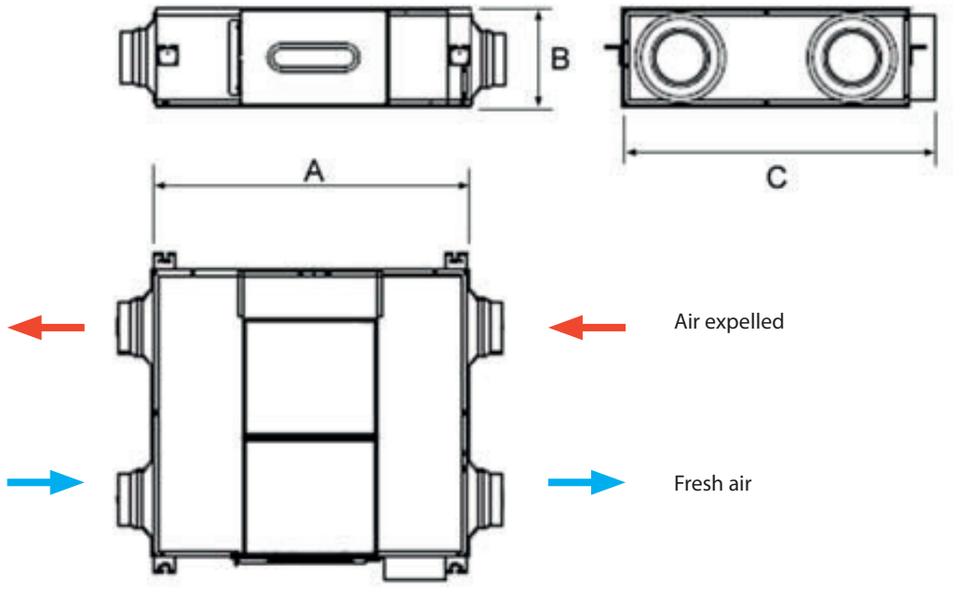
	Accessories compatibility						
TRS	**251**	**351**	**501**	**651**	**801**	**1001**	**1301**
TRSPTS	•	•	•		•	•	•
TRSQSW	•	•	•		•	•	•
TRSUSW	•	•	•		•	•	•

Technical data

TRS			251	351	501	651	801	1001	1301
Air flow rate		m³/h	250	350	500	650	800	1000	1300
Nominal static pressure		Pa	90	140	110	100	140	140	140
Max input current		A	0.5	0.6	0.6	1.2	1.4	2.1	2.7
Fans									
Motor type						EC			
n° speed						10			
Ventilation control	(1)					Man			
Internal specific power of SPF int		W/(m³/s)	812	670	547	846	865	881	873
Total nominal absorbed power		kW	0.08	0.13	0.15	0.23	0.32	0.39	0.50
Sound pressure level	(2)	dB(A)	34	37	39	40	42	43	44
Heat recovery									
Winter thermal efficiency	(3)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.2
Enthalpy winter efficiency	(3)	%	65.0	65.0	67.0	65.0	65.0	62.0	59.0
Summer thermal efficiency	(4)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.0
Summer enthalpy efficiency	(4)	%	62.0	62.0	63.0	60.0	63.0	60.0	58.0
Efficienza termica a secco	(5)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.0

(1) Man = Manual from selector or keyboard;
(2) Sound pressure level assessed at 1m from suction / discharge ports and the inspection side at nominal conditions in free field.
(3) Outdoor air -5 ° C 80% RH; ambient air 20 ° C 50% RH.
(4) Outdoor air: 32 ° C BS, UR 50%; Ambient air: 26 ° C BS, UR 50%
(5) According to EU regulation 1253/2014; at the nominal pressure; temperature and humidity conditions referred to EN308.

Dimensional data (mm)



Model	Dimensions [mm]			Weight [kg]
	A	B	C	
TRS251	815	270	650	30
TRS351	815	270	855	37
TRS501	895	270	955	43
TRS651	1185	390	945	65
TRS801	1185	390	1200	71
TRS1001	1200	390	1290	83
TRS1301	1200	390	1290	83

Code: STRSUY.02 / 1712

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RPLI

Counter-current flow heat recovery unit with inverter motor



• EASY AND QUICK INSTALLATION
• FAN WITH EC INVERTER MOTOR
• VERSIONS WITH WATER COIL OR ELECTRIC FOR THE POST–HEATING

Features

The RPLI heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
The unit is equipped with a counter-current heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air.
They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

Version for horizontal installation:
RPLI (L or P): L low useful static pressure, H high useful static pressure
With fans orientation type 1 (see example on side)
RPLI_W: With water coil
Cooled/ Hot for the sizes 030 - 100
Hot for the sizes 140 - 400
RPLI_E: With electric heating coil

- Plug-fan radial fan with EC motors
- **Aluminium plate counter-current flow heat recovery unit** with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin.
- **Ventilation by-pass** of the external air flow equipped with internal damper, with free cooling and even anti-freeze function.
- **Synthetic filter class M5** according to EN779 placed on the expelled air intake
- **Synthetic filter class F7** according to EN779 placed on the external air inlet
- filters fouling pressure switches assembled
- Self-supporting sandwich panels in galvanised sheet metal with injected polyurethane insulation density 45 kg/m^3 and a thickness of 25 mm. The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1.
- Condensate collection basin in galvanised steel
- Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400
- Accessible fans, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400
- The fan can be controlled with a 0-10 Vdc controller, RVC or RVCL accessory.

Accessories

- **M4F_**: External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.
- **MBF_:** External module with water cooling coil and condensate collection basin (only for sizes 140-400).
- **MBF_X**: External module with water cooling coil and condensate collection basin (only for sizes 140X-400X).
- **MBP_:** Module with post-heating water coil.
- **MBE_:** Module with electric coil (anti-freeze and/or post-heating function).
- **MSU_:** Module equipped with silencer baffles. The accessory is supplied in 1 piece.
- **FGC_:** Circular flanges. The accessory is supplied in 1 piece.
- **RVC_ and RVCL:** Speed regulator supplied in 2 pieces.

Compatibility of accessories

RPLI	030	050	070	100	140	200	300	400
M4F	M4F03	M4F05	M4F07	M4F10	M4F14	M4F20	M4F30	M4F40
MBF	/	/	/	/	MBF14	MBF20	MBF30	MBF40
MBF_X	/	/	/	/	MBF14X	MBF20X	MBF30X	MBF40X
MBP	MBP03	MBP05	MBP07	MBP10	MBP14	MBP20	MBP30	MBP40
MBE	MBE03	MBE05	MBE07	MBE10	MBE14	MBE20	MBE30	MBE40
MSU	MSU03	MSU05	MSU07	MSU10	MSU14	MSU20	MSU30	MSU40
FGC	FGC030	FGC050	FGC070	FGC100	FGC140	FGC200	FGC300	FGC400
RVC (versions P)	RVC40							
RVC (versions L)	RVC40	RVCL	RVCL	RVC40	RVCL	RVC40	RVC40	RVC40

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Code**

1,2,3,4 RPLI

5,6,7 **Size**

030-050-070-100-140-200-300-400

8 **Version**

- **L** Low useful static pressure
- **P** High useful static pressure

9 **Installation**

- ° Horizontal

10 **Flow orientation**

- ° Type 1
- **X** Type 2

11 **Heat exchanger**

- ° No internal coil
- **W** Water coil (1)
- **E** Post-heating electric internal coil

(1) Also to be used with cooled water only for sizes 030-100 including, for sizes 140-400 only be used with hot water.

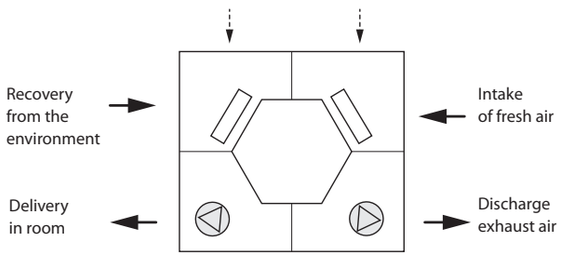
Example of commercial code: RPLI030L (Low static pressure heat recovery unit) **RPLI030LW** (Low static pressure heat recovery unit with water coil), **RPLI030LX** (Low static pressure heat recovery unit with type 2 flow orientation).

Each option is represented in a unique way from all the others, so it is not necessary to indicate (within the commercial code) the standard options (identified by °).

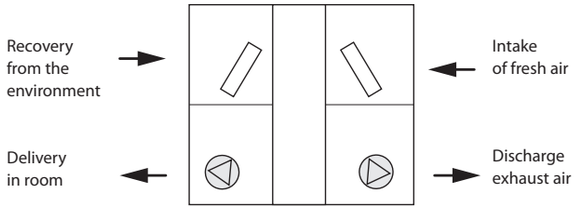
Available orientation

TYPE 1 Standard

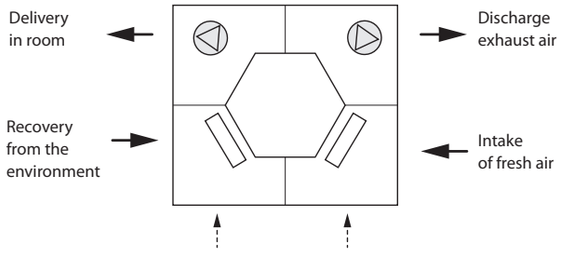
Size from 030 to 100

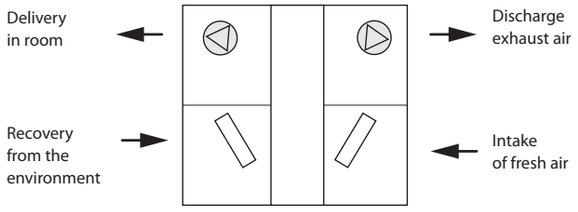


Size from 140 to 400



TYPE 2 to be requested during order





Technical data

RPLI L			030	050	070	100	140	200	300	400
		V/ph/Hz	230V~50	230V~50	230V~50	230V~50	230V~50	230V~50	400V/3/50	400V/3/50
Ventilation units type	*		UVNR (non-residential ventilation unit)							
Heat recovery unit										
Heat recovery system type	*	type/no	static at counter-current flow / 1							
Dry heating efficiency	*(1)	%	81,1	78,1	76,8	75,3	76	76,3	75,5	75,6
Heat capacity recovered (EN308)	(2)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Nominal air flow rate supply/recovery	*	m³/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
		m³/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate		m³/h	200	250	400	550	800	1150	1750	2300
Fans										
Commissioning	*		Analogue signal of EC fan (0-10Vdc)							
Fans		type/no	EC/2	EC/2	EC/2	EC/2	EC/4	EC/2	EC/2	EC/2
Supplied electrical power consumption		kW	0,065	0,088	0,142	0,208	0,333	0,449	0,472	0,734
Recovered electrical power consumption		kW	0,064	0,085	0,139	0,203	0,307	0,412	0,436	0.686
Total input electric power	*	kW	0,129	0,173	0,2811	0,410	0,640	0,860	0,907	1,420
SFP int	*	W/(m³/s)	820	953	907	1120	1132	1103	748	928
SFP int_lim 2018		W/(m³/s)	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	*	m/s	0,8	1,2	1	1,4	2,2	2,2	1.9	2,5
Nominal external pressure Δp	(5)	Pa	100	100	110	110	110	110	110	110
Max. useful static supply pressure	(5)	Pa	323	401	191	143	112	110	132	196
Max. useful static recovery pressure	(5)	Pa	328	416	198	161	154	149	164	242
Supplied internal pressure drop Δp	*	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δp	*	Pa	110	213	182	274	228	230	213	244
Fans static efficiency	*(3)	%	35,8%	57,0%	57,0%	59,7%	57,0%	49,2%	67,2%	66,9%
External / internal leakage	(4)		<3% / 3.9%							
Filters										
Expelled air filter		type/no	M5/1							
External air filter		type/no	F7/1							
Filters energy class (delivery and recovery)			On request							
Sound Data										
sound power level	*	dB(A)	On request							

RPLI P			030	050	070	100	140	200	300	400
		V/ph/Hz	230V~50	230V~50	230V~50	230V~50	230V~50	230V~50	400V/3/50	400V/3/50
Ventilation units type	*		UVNR (non-residential ventilation unit)							
Heat recovery unit										
Heat recovery system type	*	type/no	static at counter-current flow / 1							
Dry heating efficiency	*(1)	%	81,1	78,1	76,8	75,3	76	76,3	75,5	75,6
Heat capacity recovered (EN308)	(2)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Nominal air flow rate supply/recovery	*	m³/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
		m³/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate		m³/h	200	250	400	550	800	1150	1750	2300
Fans										
Commissioning	*		Analogue signal of EC fan (0-10Vdc)							
Fans		type/no	EC/2	EC/2	EC/2	EC/2	EC/2	EC/4	EC/4	EC/2
Supplied electrical power consumption		kW	0,043	0,084	0,113	0,215	0,347	0,410	0,546	0,872
Recovered electrical power consumption		kW	0,042	0,080	0,113	0,209	0,328	0,376	0,498	0,818
Total input electric power	*	kW	0,085	0,164	0,226	0,424	0,675	0,786	1.044	1,690
SFP int	*	W/(m³/s)	543	903	694	1116	1095	918	770	999
SFP int_lim 2018		W/(m³/s)	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	*	m/s	0,8	1,2	1.0	1,4	2,2	2,2	1.9	2,5
Nominal external pressure Δp	(5)	Pa	100	100	125	125	145	145	150	150
Max. useful static supply pressure	(5)	Pa	506	338	279	638	412	469	462	303
Max. useful static recovery pressure	(5)	Pa	511	353	285	656	452	509	493	349
Supplied internal pressure drop Δp	*	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δp	*	Pa	110	213	182	274	228	230	213	244
Fans static efficiency	*(3)	%	61,7	61,7	61,7	57,2	57,2	61,8	66,9	62,7
External / internal leakage	(4)		<3% / 3.9%							
Filters										
Expelled air filter		type/no	M5/1							
External air filter		type/no	F7/1							
Filters energy class (delivery and recovery)			On request							
Sound Data										
sound power level	*	dB(A)	56	58	56	61	66	62	62	68

*** Information in compliance with Annex V of regulation EU no. 1253/2014**

SFP Specific Fan Power

(1) relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.

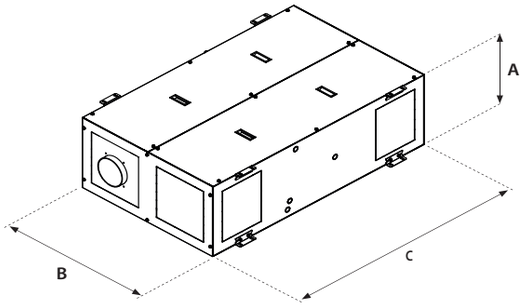
(2) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C

(3) according to regulation EU 327/2011;

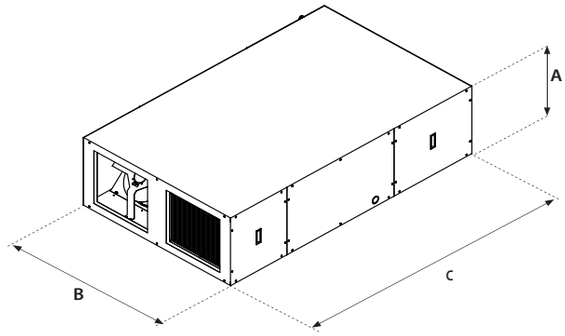
(4) external leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

(5) Performances referring to clean filters

Dimensions (mm)



030 - 100



140 - 400

RPLI		030	050	070	100	140	200	300	400
A	mm	400	400	435	435	460	460	600	600
B	mm	800	800	945	945	1100	1600	1700	2050
C	mm	1300	1300	1600	1600	1800	1800	2350	2350
RPLI L	kg	89	105	150	150	154	234	374	451
RPLI P	kg	91	107	153	153	157	238	379	456

Code: SRPLIUI.00/1711

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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800-843085

AERMEC

NEW

RTD

Thermodynamic recovery unit with Inverter compressor
Nominal air flow rate from 1100 to 3200 mc/h



- **COMPACT DIMENSIONS**
- **INVERTER COMPRESSOR**
- **PLUG FANS WITH EC INVERTER MOTOR**
- **ADVANCED FIXED POINT SETTING IN DELIVERY**

Features

RTD is an air replacement, filtration and treatment unit equipped with high efficiency thermodynamic recovery performed by an integrated cooling circuit.
The inverter compressor allows a high energy saving at the same time as maintaining the set delivery temperature.
The unit can be integrated in the direct expansion and hydronic systems both in heating and cooling mode..

Internal horizontal installation:

RTD : standard unit with constant flow-rate control

Q : units with flow modulation according to the concentration of CO_2

W: with internal hot/cold water coil complete with three-way valve, modulating servo-control and anti-freeze thermostat.

- Cooling circuit **BLDC inverter compressor**
- **Plug fans with EC inverter motor**
- **power and control electrical panel** on the machine
- **Programmable controller** able to manage all the advanced functions present on the unit (with fixed point adjustment in delivery; cooling, heating, automatic, free cooling functions; compressor, fans and eventual water coil modulation)
- **Synthetic filter class M5** according to EN779 on the external air inlet complete with fouling detection pressure switch
- Lower sandwich panels in galvanised sheet metal with injected polyurethane insulation; upper and side panel in galvanised sheet metal internally lined with insulating mat
- **Condensate collection tank** in aluminium alloy with side discharge
- **Remote panel (mandatory accessory)** in graphic display version or Touch version

Accessories

MODULES SUPPLIED UNASSEMBLED

- **MRE_ _ :** Single-stage ON / OFF anti-freeze electric heater module to be installed on the external air intake (required for outdoor air temperatures below -5° C).
- **MF5R_ :** M5 efficiency recovery filters module (lateral extraction)
- **MF7M_ :** F7 efficiency delivery filters module (lateral extraction) complete with filter fouling pressure switch.

REMOTE PANEL (COMPULSORY ACCESSORY) to be chosen from the following:

- **PRGD1 :** wall mounted remote panel with graphic display. Allows the control of all unit functions. Maximum installation distance of 10 m.
- **PRGDXIN :** recessed touchscreen remote panel with black frame. Allows the control of all unit functions. Maximum installation distance of 150 m.
- **PRGDXIB :** recessed touchscreen remote panel with white frame. Allows the control of all unit functions. Maximum installation distance of 150 m.
- **PRGDXPN :** wall mounted touchscreen remote panel with black frame. Allows the control of all unit functions. Maximum installation distance of 150 m.
- **PRGDXPB** : wall mounted touchscreen remote panel with white frame. Allows the control of all unit functions. Maximum installation distance of 150 m.

Compatibility of accessories

RTD	11	14	17	21	26	32
MRE*	MRE2M		MRE3M	MRE3T	MRE5T	
MF5R	MF5R1		MF5R2		MF5R3	
MF7M	MF7M1		MF7M2		MF7M3	
PRGD1	PRGD1					
PRGDXIN	PRGDXIN					
PRGDXIB	PRGDXIB					
PRGDXPN	PRGDXPN					
PRGDXPB	PRGDXPB					

* The number indicates the power of the electric battery, the last letter indicates M = single-phase power supply, T = three-phase power supply.

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Abbrev.**

1,2,3 RTD

4,5,6 **Size**

11 - 14 - 17 - 21 - 26 - 32

7 **Ventilation control type**

° Constant flow (standard unit)

Q Control via air quality probe

8 **Internal hot/cold water coil**

° no coil (standard unit)

W Coil

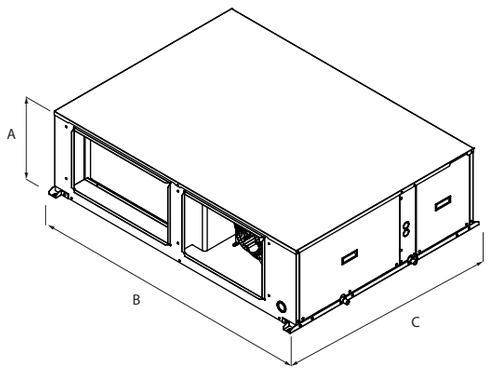
Example of commercial code: RTD11 (standard unit); **RTD11Q** (unit with air flow control via air quality probe) ; **RTD11W** (unit with internal water coil) ; **RTD11QW** (unit with air flow control via air quality probe and internal water coil) ;
Each option is represented in a unique way from all the others, so it is not necessary to indicate (within the commercial code) the standard options (indicated by °.

Technical data

RTD		**070**	**100**	**140**	**200**	**300**	**400**
Nominal air flow rate	m³/h	1100	1400	1700	2100	2600	3200
Minimum air flow rate	m³/h	950	1200	1450	1800	2200	2700
Maximum air flow rate	m³/h	1200	1550	1850	2300	2850	3500
DELIVERY FANS							
Number of fans	no.			1			
Type				Plug-fan EC inverter			
Nominal useful head	Pa	150	150	150	150	150	150
Maximum useful head	Pa	597	632	566	411	592	397
Installed power	W	500	500	500	500	930	930
Absorbed power	kW	0.16	0.18	0.21	0.30	0.40	0.59
EXPULSION FANS							
Number of fans	no.			1			
Type				Ventilateur à roue libre à EC à inverter			
Nominal useful head	Pa	140	140	140	140	140	140
Maximum useful head	Pa	619	665	624	500	705	564
Installed power	W	500	500	500	500	930	930
Absorbed power	kW	0.17	0.18	0.28	0.26	0.31	0.45
AIR CONDITIONING PERFORMANCE							
Total cooling capacity	kW	6.8	7.8	8.4	10.9	13.6	14.8
Sensible cooling capacity	kW	4.9	5.9	7.4	9.9	11.7	13.1
Compressor absorbed power	kW	1.9	2.3	2.3	3.2	3.9	4.6
E.E.R. cooling circuit		3.62	3.32	3.75	3.39	3.49	3.23
E.E.R. EN14511 2013		3.31	3.12	3.35	3.11	3.14	2.81
HEAT PUMP PERFORMANCE							
Thermal power	kW	7.8	9.6	10.3	13.7	16.4	19.2
Compressor absorbed power	kW	1.4	1.8	2.3	2.8	3.5	4.1
C.O.P.		5.48	5.20	4.51	4.83	4.66	4.65
C.O.P. EN14511 2013		4.45	4.36	3.72	4.04	3.87	3.72
COMPRESSOR							
Type				Twin-rotary BLDC			
Commissioning				Inverter			
FILTERS							
External air filter	type/no			M5/1 (F7 accessory)			
Expelled air filter (accessory)	type/no			M5/1			
ELECTRICAL DATA	V/ph/Hz	230/1/50	230/1/50	230/1/50	400/3+N/50	400/3/50	400/3/50
F.L.I.		4.4	4.4	4.4	5.2	6.0	6.0
F.L.A.		14.2	13.6	13.6	17.7	16.9	16.9
M.I.C.		5	4.4	4.4	4.4	3.6	3.6

Conditions en refroidissement avec : air extérieur Tbs/Tbh 35°C/24°C ; air intérieur Tbs/Tbh 27°C/19°C
Conditions en chauffage avec : air extérieur Tbs/Tbh 7°C/6°C ; air intérieur Tbs/Tbh 20°C/15°C

Dimensions (mm)



RTD		070	100	140	200	300	400
A	mm	425	425	525	525	625	625
B	mm	1500	1500	1500	1500	1500	1500
C	mm	1100	1100	1100	1100	1100	1100

Code : SRTDUI.00 /1712

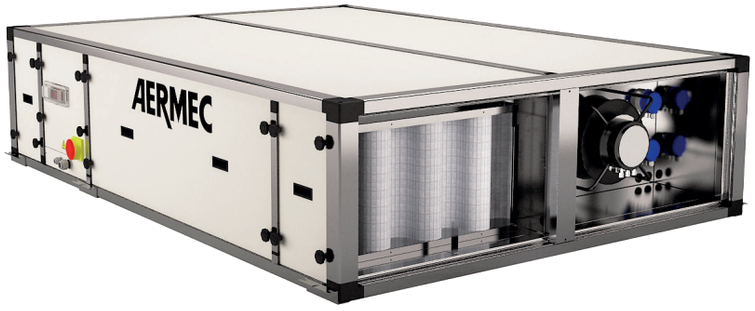
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Numero Verde
800-843085

RPF

High performance heat recovery unit with cross-current recuperator. Nominal air flow from 790 to 4250 m³/h.



• CROSS–CURRENT HEAT RECOVERY WITH PERFORMANCES SUPERIOR THAN 90%
• PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS FOR ENERGY COSTS REDUCTION

Features

- Heat recovery units **RPF** have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving.
  Always more in the modern plant design there is the demand to have a Controlled Mechanical Ventilation, which implies the expulsion of conditioned air, determining a higher consumption of energy and consequently an increase of prices.
  The units **RPF thanks to the cross-current heat recuperator** permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.

  RPF could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.

Configurations
- **RPF_O** Horizontal right supply (not available for size 42)
- **RPF_P** Horizontal left supply (not available for size 42)
- **RPF_V** Vertical right supply
- **RPF_Z** Vertical left supply

Each of the different configurations could be further customized thanks to the choice of the accessories **(please refer to the technical documentation)**

- **The structure is formed by aluminium profiles with thermic cut**, connected by nylon angles charged with glassfibre.
  The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with density 45 kg/m3. The expandent of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential).
  The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986.
  Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

- Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.

- Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow.
  The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available.
  The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air.
  Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].
- Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate.
  The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed.
  Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract.
  It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

- Regulation
  Costituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position.
  The function of regulation are:

1. Ventilation control (manual control of the standard fans speed);
2. Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);
3. Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation , ranges of time;
4. Complete interfaceability with BMS systems.

Functionality and technological advantages

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.
The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building.. For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

- **VERY HIGH VENTILATION EFFICIENCY**
  Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.
  Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.
  A particular adaptative logic permits to adjust the effective air capacity required from the system with more consequent advatages in terms of reduction of consumptions.

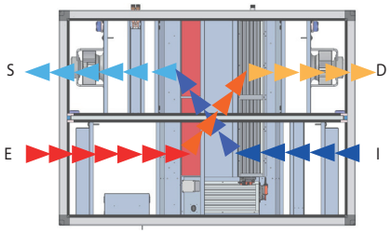
- **MAXIMUM EFFICIENCIES**
  In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery.
  The key-concept on which is based the RPF proposal are:
- Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
  Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for m^3/h of total processed capacity);
  High efficiency filtration and low pressure drops;
  Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
- Compactness of dimensions and logic of installation "plug and play".

- **AIR QUALITY IN ROOM**
  Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.

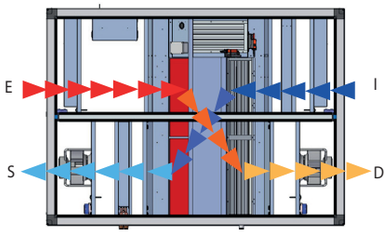
Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

Basic configuration

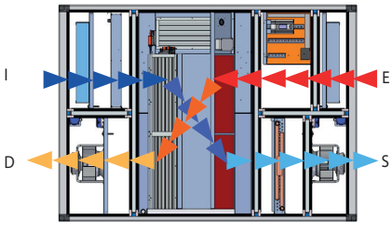
RPF O Horizontal configuration
Right supply (seen from above)



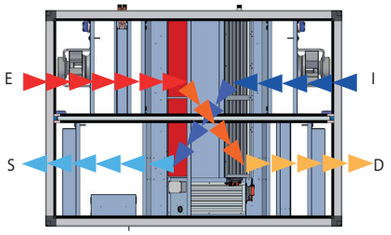
RPF P Horizontal configuration
Left supply (seen from above)



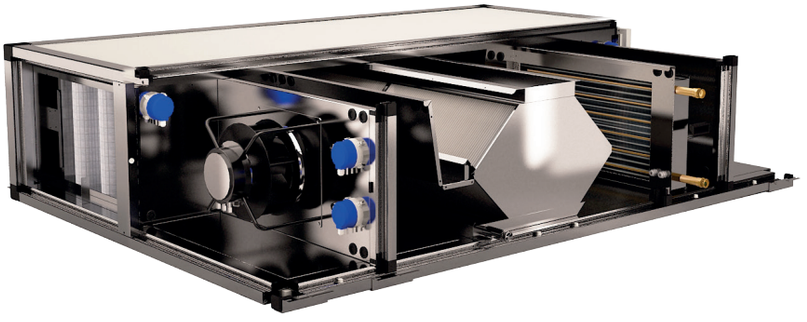
RPF V Vertical configuration
Right supply (seen from the accessible side)



RPF Z Vertical configuration
Left supply (seen from the accessible side)



Legend: D = Discharge; I = Intake; S = Supply E = Extract



Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC)



Static cross-current high efficiency recuperator with aluminium plates.

RPF			008	010	013	020	031	042
		V/ph/Hz	230V/~N/50	230V/~N/50	230V/~N/50	230V/~N/50	400V/3/50	400V/3/50
Type of ventilation units	*		UVNR (Unit ventilation not residential)					
Recery it								
Type heat recovery system	*	type/n°	cross-current heat recovery / 1					
Heating efficiency dry	*(1)	%	80	79,9	80	79,9	79,9	83,8
Total recovered heating capacity (EN308)	(2)	kW	4,2	5,4	7	10,7	16,6	22,8
Heating efficiency for renovation	(3)	%	90	90	90	90	90	90
Total recovered heating capacity	(3)	kW	7,2	9,1	11,8	18,1	28,1	38,5
Air flow rate supply/extract	*	m³/s	0,22	0,28	0,36	0,56	0,86	1,18
		m³/h	790	1000	1300	2000	3100	4250
Air flow rate min.		m³/h	200	200	400	1000	1000	1300
Air flow rate max.		m³/h	980	1260	1530	2350	3700	4600
Fans								
Driving	*		Analog signal of EC fan					
Fans		type/n°	EC/2	EC/2	EC/2	EC/2	EC/2	EC/2
Supplied electrical power consumption		kW	0,16	0,24	0,33	0,6	0,79	1,3
Recovered electrical power consumption		kW	0,15	0,23	0,33	0,56	0,76	1,2
Total input electric power	*	kW	0,31	0,47	0,66	1,16	1,55	2,5
Total input electric power	(4)	kW	0,6	1,24	1,26	1,66	5,26	5,26
Corrente assorbita massima totale	(4)	A	4,6	7,5	7,5	9,3	11,1	11,1
SFP int	*	W/(m³/s)	625	667	743	1142	919	1211
SFP int_lim 2018		W/(m³/s)	1127	1118	1109	1227	1031	1253
Filters face velocity	*	m/s	1,8	2	1,8	2,2	2,2	2,1
Nominal external pressure Δp		Pa	200	250	250	250	250	225
Useful static supply pressure		Pa	191	218	169	134	215	143
Useful static recovery pressure		Pa	196	233	175	152	255	184
Supplied internal pressure drop Δp	*	Pa	174	198	219	319	304	372
Recovered internal pressure drop Δp	*	Pa	176	189	227	355	293	379
Fans static efficiency	*(5)	%	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage	(6)		0,3	0,3	0,3	0,1	0,3	0,2
External leakage	(6)		<3%					
Filters								
Expelled air filter energy class			B	B	B	B	B	B
External air filter energy class			On request					

*** Information in compliance with Annex V of regulation EU no. 1253/2014**

SFP Specific Fan Power

(1) relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.

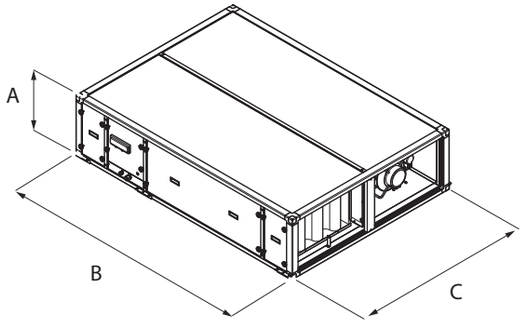
(2) Expelled air: Tbs=25°C; Tbu<14°C. Fresh air: Tbs=5°C

(3) according to regulation EU 327/2011;

(4) external leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

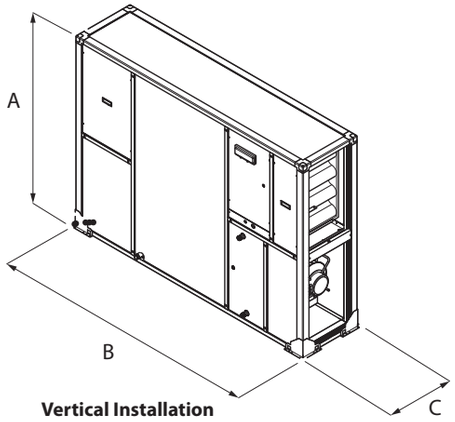
Dimensions (mm)

RPF 008÷031



Horizontal Installation

RPF 008÷042



Vertical Installation

Mod. RPF (Horizontal)				**008**	**010**	**013**	**020**	**031**	**042**
Height	(mm)	A		450	450	524	560	700	-
Width	(mm)	B		1915	1915	2174	2334	2654	-
Depth	(mm)	C		1054	1258	1374	1694	1948	-
Weight when empty	(kg)		(2)	194	220	264	328	452	-

Mod. RPF (Vertical)				**008**	**010**	**013**	**020**	**031**	**042**
Height	(mm)	A		1054	1258	1374	1694	1948	1550
Width	(mm)	B		1915	1915	2174	2334	2654	2974
Depth	(mm)	C		450	450	524	560	700	1130
Weight when empty	(kg)		(2)	194	220	264	328	452	585

(2) Standard confi guration of unit with accessories

Note: For more information, refer to the selection program Magellano or the technical documentation available on the website www.aermec.com

Cod.: SRPFUY.03 / 1608

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URX CF

Heat recovery unit with refrigerant circuit. Air flow from 750 to 3,300 m^3/h.

HFC Refrigerant R410A



The URX_CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.
The URX_CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.
The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A. All this allows to have a complete unit, with the automatic operation in each season and capable of combining the required space ventilation requirements with efficient heat recovery.
The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

Characteristics

VERSIONS
- Standard horizontal configuration
  5 sizes complete with temperature controller and ready for installation.

PANELS:
- Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m3).

HEAT RECOVERY:
- Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

FILTERS:
- Class G3, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

CENTRIFUGAL FANS:
- Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

REFRIGERANT CIRCUIT:
- Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

ELECTRICAL PANEL:
- The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, pressure switch in the supply air filter. Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

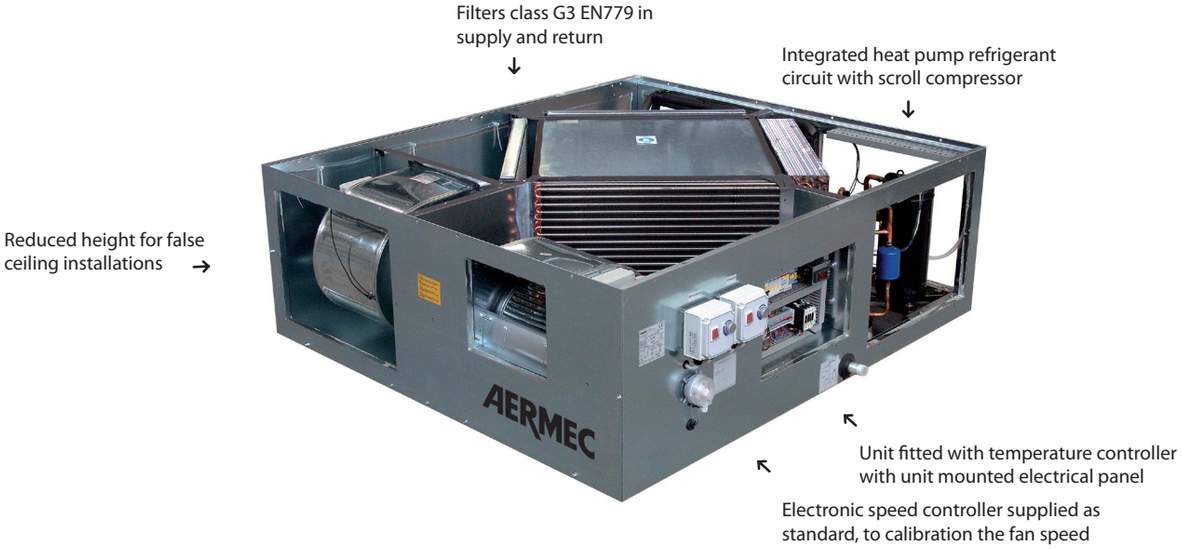
CONDENSATE DRAIN TRAY:
- Condensate drain tray in aluminium.

ACCESSIBILITY:
- From below for the heat recovery, the filters, the condensate drain tray and the fans.

Accessories

- **MBC** casing with 2 row hot water coil to install on the supply air. Includes the three way valve and on-off actuator.
- **FCE** free-cooling complete with controls to be added to the existing. Free-cooling operation only works in the summer mode, if the external air temperature is at least 10K lower than the internal air temperature and if the compressor safeties permit it.
- **FGC** circular flanges. Each accessory consists of a flange to be connected to each unit's rectangular connection.
- **G4F** filter efficiency G4
- **MBX** casing with single stage electrical heater with shrouded finned elements, with double safety thermostat of manual and automatic reset type, to install on the supply air.
- **SUF** silencer splitter module, in appropriate casing. The accessory consists of two modules: one for the supply and one for the return.
- **RS485** board RS485

URX_CF	07	10	15	21	33
RS485	•	•	•	•	•
FCE	07	10	15	21	33
FGC	07	10	15	21	-
G4F	07	10	15	21	33
MBC	07	10	15	21	33
MBX	07	10	15	21	33
SUF	07	10	15	21	33



Technical data

Mod. URX_CF			07	10	15	21	33
Air flow nominal supply and extract		m^3/h	750	1000	1500	2100	3300
Air flow minimum			640	850	1275	1785	2800
Available supply static pressure (max)	(1)	Pa	298	250	250	166	280
Available extract static pressure (max)	(1)	Pa	248	218	233	163	273
Heating capacity total (heat recovery + refrigerant circuit)		kW	8,8	10,8	15,8	22,8	33,3
Total cooling capacity (heat recovery + refrigerant circuit)		kW	6,1	7,3	10,2	15,0	23,0
Heating capacity available		kW	2,4	2,3	3,0	4,8	5,2
Cooling capacity available		kW	1,4	1,7	2,2	3,4	5,1
Efficiency heat recovery		%	46,2	51,2	53,2	53,6	53,6
Fans							
Total fans nominal power input		n°	0,92	0,92	0,92	0,92	1,5
Total fans maximum current input		kW	4,20	4,20	4,20	4,20	6,80
N°		A	2	2	2	2	2
Compressors							
Gas			R410A	R410A	R410A	R410A	R410A
Compressor power input winter condition		kW	1,3	1,3	1,8	2,5	3,0
Compressor power input summer condition		kW	1,8	2,1	2,3	3,5	4,4
Maximum compressor current input		A	8,2	12,5	7	11,1	19,7
Total power input winter condition		kW	2,0	2,0	3,3	4	5,5
Total power input summer condition		kW	2,6	2,8	3,8	5	6,9
Sound pressure level at 1 m		db(A)	53	55	57	59	62
Power supply			230V/1/50Hz	230V/1/50Hz	400V/3N/50Hz	400V/3N/50Hz	400V/3N/50Hz

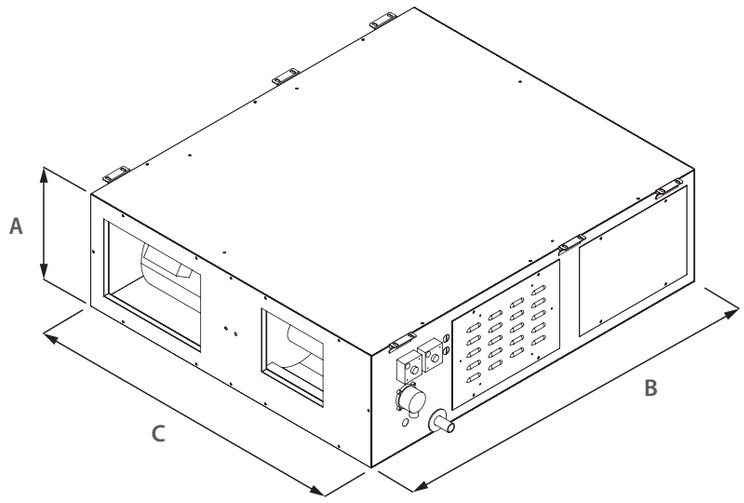
MBC - Hot water coil (accessory)							
Number of rows		n°	2	2	2	2	2
Air side pressure drop (nominal air flow)		Pa	11	18	23	42	78
Heating capacity	(2)	kW	5	6	8,7	10,3	16,8
Heating capacity	(3)	kW	1,9	2,2	3,4	3,7	7,5
Water flow rate at nominal conditions	(2)	l/h	442	523	763	902	1475
Water pressure drop (nominal conditions)	(2)	kPa	16	22	9	12	31
Water flow rate at nominal conditions	(3)	(/h	336	382	584	638	1306
Water pressure drop (nominal conditions)	(3)	kPa	11	14	6	7	28
MBX - Electric heating coil (accessory)							
Power supply			400V/3/50Hz (separate power supply to the unit)				
Heating capacity		kW	3	4,5	6	9	12
Air side pressure drop (nominal air flow)		Pa	10	10	10	10	10
Number of stages		n°	1	1	1	1	1
Electric heater current input		A	4,6	6,8	9,1	13,7	18,2
CONNECTION DIAMETERS							
Drain pan condensate discharge diameter		in	1″	1″	1″	1″	1″
Water coil connection diameter		in	3/4″	3/4″	3/4″	3/4″	3/4″

Heating
fresh air flow equal to the exhaust air flow; external air temperature (in) -5°C 80% r.h.; room air temperature 20°C, 50% r.h.

Cooling
fresh air flow equal to the exhaust air flow; external air temperature (in) 34°C 50% r.h.; room air temperature 26°C, 50% r.h.

(1) Fan power supply 230V; nominal air flow rate without accessories
(2) Water temperature (in/out) 70/60°C; operating as in heating mode; with compressor operating
(3) Water temperature (in/out) 45/40°C; operating as in heating mode; with compressor operating
Sound pressure: at 1 m in free field with ducted vents

Dimensional data (mm)



URX_CF			07	10	15	21	33
Height	A	mm	450	450	550	550	600
Width	B	mm	1300	1300	1500	1500	1600
Depth	C	mm	1500	1500	1800	1800	1800
Weight		kg	205	218	272	298	328

Cod.: SURXUY.02 / 1501

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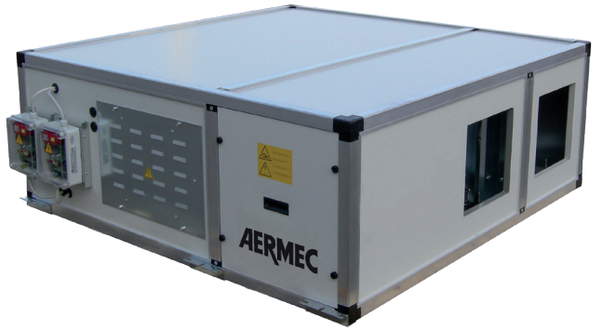
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URHE__CF

High-efficiency heat recovery unit with cooling circuit without an external unit. Air flow rates from 1,000 to 3,300 m³/h.

HFC Refrigerant R410A

TECHNOLOGY HIGH EFFICIENCY



Features

The units from the URHE_CF series represent a high-efficiency solution to satisfy the temperature and humidity comfort and ventilation requirements in air conditioning systems that serve public spaces and the commercial sector, such as offices, bars, restaurants, etc.
The URHE_CF units are particularly efficient units in that they use a high yield cross flow plate heat exchanger of high capacity combined with a heat pump cooling circuit operating with refrigerant R410A.
The use of a high yield cross flow heat recovery unit permits a significant reduction in the operating time of the cooling circuit throughout the year, thereby reducing to the minimum the electrical energy consumption.
The small unit dimensions allow for easy installation even in suspended ceilings, allowing excellent accessibility for the maintenance of all the internal components.
The numerous accessories available on request, for example the high-efficiency compact filters, the hot water coil or the silencers, complete the functions of the unit, which is usually combined to an air conditioning system.

VERSIONS
- 4 sizes available in horizontal configuration for ground or suspended ceiling installation.
- Unit complete with temperature controller and ready for installation.

STRUCTURE AND PANELS:
- Structure in aluminium profiles with glass fibre reinforced nylon corner pieces.
- Sandwich panel 25 mm thick with galvanised steel for the internal surface, prepainted for the external surface with injected polyurethane insulation (density 42 kg/m3).

HEAT RECOVERY:
- Cross flow plate heat exchanger in aluminium optimised to ensure high outputs.

PLEATED FILTERS:
- Class G4, 80% gravimetric efficiency according to EN 779, thickness 48 mm, located before the recovery unit both in the supply and return air flow.

CENTRIFUGAL FANS:
- Forward curved impellers with directly coupled high static pressure motor. The air flow rate is maintained constant by the use of an electronic controller.

COOLING CIRCUIT:
- Heat pump with refrigerant R410A, complete with high-efficiency low noise rotary or scroll compressors (depending on size), 4 way cycle reversing valve, evaporator coil, condenser coil, liquid receiver, thermostatic valve, liquid sight glass, dehydrator filter, high pressure manostat, low pressure manostat, safety valve, bypass valve (for the smaller sizes).

ELECTRICAL PANEL:
- The unit is provided with an electrical panel complete with power and control cross-section (including the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the cooling circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, manostat on the flow filter. Supplied loose is a remote control terminal for automatic control of the unit.

ENVIRONMENTALLY FRIENDLY:
- Through the applied technology and the use of ozone friendly refrigerant R410A, the URCHE_CF series is environmentally friendly. R410A is a refrigerant with high thermodynamic efficiency and this, together with the use of scroll compressors, allows for reduced CO_2 emissions.

Accessories

- **MBCH** hot water coil module
- **MBCX** electric coil module
- **FCT** high-efficiency compact filters F7
- **BIT** base for floor mounting
- **BIM** base for floor mounting for additional modules
- **TPE** roof for external installation
- **TPM** roof for external installation of additional modules
- **FCH** free-cooling kit
- **RS485** board RS485
- **MSS** n° 1 silencer splitter module
- **TPMSS** roof for silencer splitter module
- **FGE** circular flanges

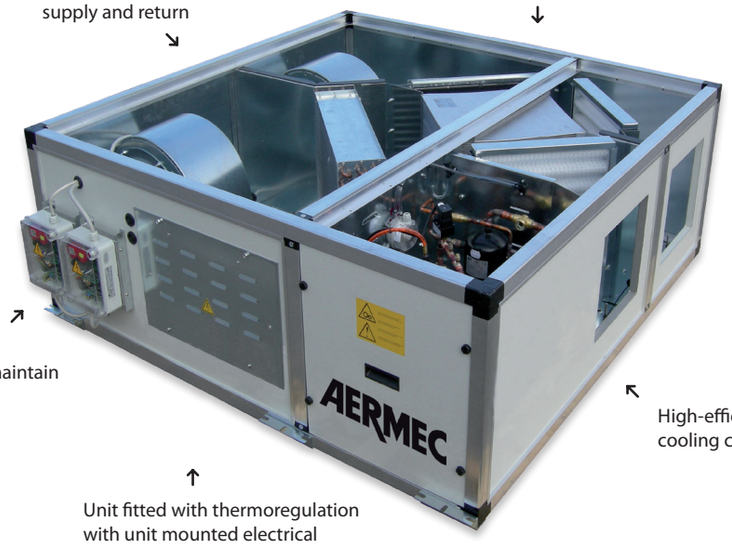
URHE_CF	10	15	25	33
MBCH	MBCH1	MBCH1	MBCH1	MBCH2
MBCX	MBCX1	MBCX2	MBCX3	MBCX4
FCT	FCT1	FCT1	FCT2	FCT3
BIT	BIT1	BIT1	BIT2	BIT3
BIM	BIM1	BIM1	BIM1	BIM1
TPE	TPE1	TPE1	TPE2	TPE3
TPM	TPM1	TPM1	TPM1	TPM2
FCH	FCH1	FCH1	FCH2	FCH2
RS485	RS485	RS485	RS485	RS485
MSS	MSS1	MSS1	MSS2	MSS2
TPMSS	TPMSS1	TPMSS1	TPMSS1	TPMSS2
FGE	FGE1	FGE1	FGE1	FGE1



Remote panel
(standard)

Filters class **G4 EN779** in supply and return

High-efficiency plate heat exchanger



Standard inverter for fans to maintain constant air flow rate

High-efficiency heat pump cooling circuit

Unit fitted with thermoregulation with unit mounted electrical panel

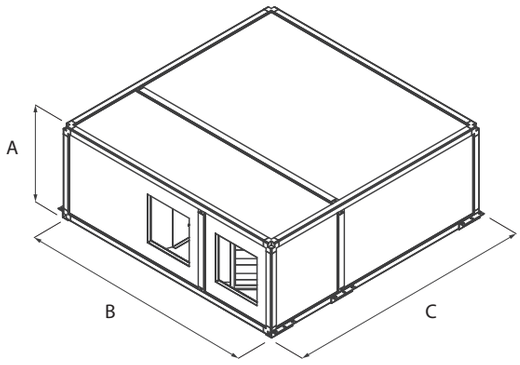
Technical data

URHE_CF			10	15	25	33
Maximum air flow and recovery flow rate			1000	1500	2500	3300
Air flow minimum			800	1100	2000	2500
Available flow and return static pressure	(1)	(Pa)	320	245	140	220
Heating capacity recovered	(2)	(kW)	7	10	15.3	19.6
Cooling capacity recovered	(3)	(kW)	2.2	3.2	4.5	5.8
Total heating capacity (recovery unit + compressor)	(2)	(kW)	10.9	14.2	24.8	33.1
Total cooling capacity (recovery unit + compressor)	(3)	(kW)	6.6	8.7	13.8	19.8
Available heating capacity	(2)	(kW)	2.8	2.9	3.9	7
Available cooling capacity	(3)	(kW)	1.8	3.1	3.3	5.4
RECOVERY UNIT						
Efficiency in winter condition		(%)	82	80	73	71
Efficiency in summer condition		(%)	82	80	68	65
FANS						
Number of fans			2	2	2	2
1 fan maximum input power		(kW)	0.42	0.46	1.1	1.1
1 fan maximum input current		(A)	3.10	3.10	5.3	5.3
Heating total input power	(2)	kW	2.2	2.4	4.2	4.9
Cooling total input power	(3)	kW	2.6	2.9	5.1	6.5
Protection rating		IP	55	55	55	55
Sound power level		dB(A)	66	69	72	75
FILTERS (standard)						
EN779 Classification			G4	G4	G4	G4
Gravimetric efficiency		(%)	90	90	90	90
EN779 Classification (accessory filters)			F7	F7	F7	F7
Additional pressure drop for filters F7 (accessory)		Δ (Pa)	35	59	58	63
COOLING CIRCUIT (COMPRESSOR)						
Refrigerant			R410A	R410A	R410A	R410A
Compressor maximum current input		(A)	10	11	7	10.3
CONDENSATE DRAIN TRAY						
Condensate drain tray discharge diameter		(in)	1″	1″	1″	1″
MBCH - HOT WATER COIL (accessory)						
Rows		(n)	2	2	2	2
Air side pressure drop (nominal flow rate)		(Pa)	7	18	37	37
Heating capacity	(4)	(kW)	7.7	10.3	15.6	19.7
Heating capacity	(5)	(kW)	2.6	4	6.5	7.6
Water flow rate at nominal conditions	(4)	(l/h)	673	906	1363	1725
Water side pressure drop (nominal conditions)	(4)	(kPa)	11	8	18	32
Water flow rate at nominal conditions	(5)	(l/h)	446	700	1118	1311
Water side pressure drop (nominal conditions)	(5)	(kPa)	3	6	14	22
Water coil manifold diameter		(in)	3/4″	3/4″	3/4″	3/4″
MBCX - Electric heating coil (accessory)						
Power supply			400V/3/50Hz (separate power supply from the unit)			
Heating capacity		(kW)	5	7.5	12.5	16.5
Air side pressure drops (nominal flow rate)		(Pa)	10	10	10	10
Stages		(n)	1	1	1	1
Electric coil current input		(A)	7.6	11.4	19	25.1

(1) Fan power supply: 230V; nominal air flow rate; without accessories;
(2) Fresh air flow rate equal to exhaust air flow rate: incoming external air temperature -5°C, 80% UR; Room temperature 20°C, 50% UR
(3) Performance referring to: fresh air flow rate equal to exhaust air flow rate; incoming external air temperature 34°C, 50% UR; room temperature 26°C, 50% UR.
(4) Performance referred to: inlet/outlet water temperature 70/60°C; at conditions 2) with compressor operating
(5) Performance referred to: inlet/outlet water temperature 45/40°C at conditions 2) with compressor operating
Sound power level of the flow fan not ducted with useful static pressure equivalent to 0 Pa.

(1) Fan power supply: 230V; nominal air flow rate; without accessories;
Cooling
(2) Operating conditions: return air 26°C 50%, external air 34°C 50%;
Heating
(3) Operating conditions: return air 20°C 50%, external air -5°C 80%;
(4) This value offers an indication of the capacity produced by the unit net of the capacity used to bring the external air conditions to neutral values (specifically, 20°C with 50% UR in winter and 26°C with 50% UR in summer)
(5) At 1 m distance in free field with ducted connections.
(6) Inlet/outlet water temperature 70/60°C. Compressor operating. Operating conditions: return air 20°C 50%, external air -5°C 80%;
(7) Inlet/outlet water temperature 45/40°C. Compressor operating. Operating conditions: return air 20°C 50%, external air -5°C 80%;

Dimensions (mm)



URHE_CF			10	15	25	33
Height	A	(mm)	580	580	580	580
Width	B	(mm)	1640	1640	1640	1970
Depth	C	(mm)	1500	1500	1990	2310
Weight		(kg)	300	310	373	410

Code: SURHECFUY.04 / 1501

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ERSR

High-efficiency heat recovery high-efficiency with rotary recovery unit. Air flow rates from 1,000 to 30,000 m³/h.

TECHNOLOGY
HIGH EFFICIENCY



- **MECHANICALLY CONTROLLED VENTILATION**
- **ROTARY HEAT RECOVERY UNIT**
- **RECOVERY OF UP TO 80% OF THE ENERGY OF THE EXPELLED AIR**
- **AIR PURIFICATION**

Features

The **ERSR** heat recovery units for indoor and outdoor installation are designed for commercial applications and are able to combine maximum environmental comfort with definite energy saving.
With modern systems, there is always the need to create forced ventilation, which, however, also involves expelling air-conditioned air, which thus leads to higher energy consumption.
But ERSR units are equipped with a rotary heat recovery unit (upon request, also hygroscopic rotary) that enables you to save more than 80% of the energy that would otherwise be lost with the expelled stale air.
These units can be integrated with fan coils and chillers, and can operate both in winter and summer.

Versions
ERSR_T with a sensitive rotary recovery
ERSR_H with a hygroscopic rotary recovery

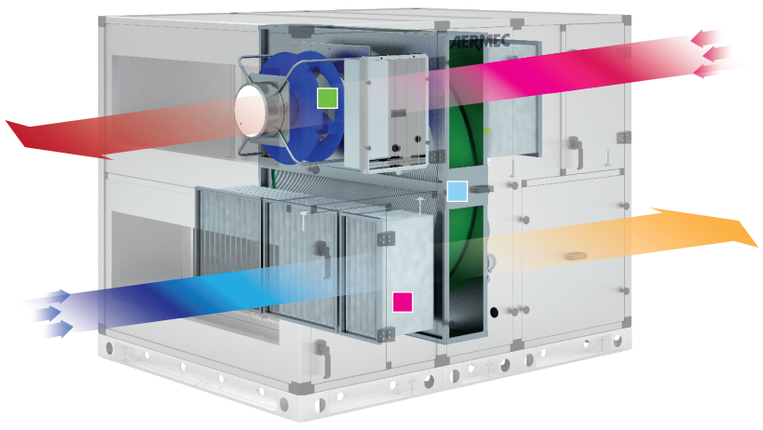
- Rotary heat recovery unit (with the option in hygroscopic material), high-efficiency and low pressure drops.
- Soft air bag F7 filters (flow and recovery) equipped with a standard differential pressure switch, which can be extracted from either side facilitate their periodic cleaning.
- Fans (intake and flow), Plug fan with back curved blades with a directly coupled, electronically controlled motor for sizes 07-17 and with an inverter for sizes 21-24.
- Support frame and sandwich panels, 50 mm thick, in galvanised sheet steel for internal surfaces and pre-painted externally, and with mineral wool insulation (density 40 kg/m³).

Upon request, there are two different types of panelling.
Base in galvanised sheet steel continuous profiles. Sizes 07 to 09 are monoblocs whilst the other sizes are divided into sections. The unit can be inspected from both sides.
- The unit is equipped with a power electric control board on the machine and adjustment purposely designed to reduce energy consumption. Equipped with a communication serial port on RS485 with MODBUS Master/Slave protocol

Accessories

- **CAP** Intake rainproof cover
- **BDL** Flow rainproof cover
- **FRR** Rectangular flange
- **GAR** rectangular anti-vibration joint
- **HSR** Fresh air intake damper with servocontrol
- **RSR** Circulation damper module
- **HG4** Flat filters G4
- **TDP** roof protection for basic unit in the case of outdoor installation
- **VRC** condensate drip tray
- **VVR** Variable speed recovery unit
- **QP** Air quality probe (VOC)
- **KDP** Dehumidification and post-heating management kit
- **RBC** 3-way valve hot water coil module
- **RBF** 3-way valve cold water coil module
- **RBE** electric coil module
- **RBP** 3-way valve cold water and post-heating coil module
- **MSS** silencer baffles module

Features



- Air expelled
- Air recovery from the room
- Outdoor fresh air
- Air introduced into the room

Quality of the air
Nowadays, the quality of air inside rooms is fundamental. The mechanically controlled ventilation system is not only indispensable from an energetic point of view, but also for the comfort of the rooms.
Harmful elements and smells in the air are eliminated by the efficient filtration system with bag filters (F7), which are easily extracted and regenerated.

High-efficiency air circulation thanks to plug-fans with electronically controlled motors or inverters, depending on the sizes

- It eliminates inefficiency, wear and maintenance of traditional fans with belt and pulley transmission
- They guarantee energy savings of up to 30% compared to traditional fans. The control lets you calibrate the fan's speed according to your requirements, thus optimising seasonal efficiency

High-efficiency recovery unit (80% of the energy of the expelled air)
Air heat recovery both in summer and winter, thanks to the rotary recovery unit (hygroscopic version also available). Air introduced into the room is always optimised, thanks to the heat exchange between the air recovery and outdoor fresh air.

State of the art electronic control
Naturally, all these technological advantages are controlled by state of the art heat regulation, thus ensuring maximum energy savings in every condition of use.

Accessories compatibility

ERSR	07	09	12	15	17	21	24
UNIT ACCESSORIES							
CAP	CAP07	CAP09	CAP12	CAP15	CAP17	CAP21	CAP24
BDL	BDL07	BDL09	BDL12	BDL15	BDL17	BDL21	BDL24
FRR	FRR09	FRR09	FRR12	FRR15	FRR17	FRR21	FRR24
GAR	GAR07	GAR09	GAR12	GAR15	GAR17	GAR21	GAR24
HSR	HSR07	HSR09	HSR12	HSR15	HSR17	HSR21	HSR24
RSR	-	-	HSR12	RSR15	RSR17	RSR21	RSR24
HG4	HG407	HG409	HG412	HG415	HG417	HG421	HG424
TDP	TDP07	TDP09	TDP12	TDP15	TDP17	TDP21	TDP24
VRC	VRC07	VRC09	VRC12	VRC15	VRC17	VRC21	VRC24
VVR	VVR07	VVR09	VVR12	VVR15	VVR17	VVR21	VVR24
QP	•	•	•	•	•	•	•
KDP	•	•	•	•	•	•	•
MODULE ACCESSORIES							
RBC	RBC07	RBC09	RBC12	RBC15	RBC17	RBC21	RBC24
RBF	RBF07	RBF09	RBF12	RBF15	RBF17	RBF21	RBF24
RBE	RBE07	RBE09	RBE12	RBE15	RBE17	RBE21	RBE24
RBP	RBP07	RBP09	RBP12	RBP15	RBP17	RBP21	RBP24
MSS	MSS07	MSS09	MSS12	MSS15	MSS17	MSS21	MSS24
MODULE ACCESSORIES WITH ROOF (for outdoor installations)							
RBCT	RBC07T	RBC09T	RBC12T	RBC15T	RBC17T	RBC21T	RBC24T
RBFT	RBF07T	RBF09T	RBF12T	RBF15T	RBF17T	RBF21T	RBF24T
RBET	RBE07T	RBE09T	RBE12T	RBE15T	RBE17T	RBE21T	RBE24T
RBPT	RBP07T	RBP09T	RBP12T	RBP15T	RBP17T	RBP21T	RBP24T
MSST	MSS07T	MSS09T	MSS12T	MSS15T	MSS17T	MSS21T	MSS24T

Technical data

Mod. ERSR			07T	09T	12T	15T	17T	21T	24T
Nominal air flow and recovery flow rate		m^3/h	1.100	1.950	3.700	5.950	7.800	12.200	16.100
Maximum air flow and recovery static pressure available		Pa	420	660	1.100	1.120	1.040	1.440	1.530
Total nominal input power	(1)	kW	0,33	0,48	1,06	1,69	2,13	3,49	3,85
Maximum air flow and recovery flow rate		m^3/h	2.000	4.370	5.880	10.650	14.800	24.750	31.350
Total maximum input power		kW	0,84	2,04	6,09	8,78	10,18	22,37	30,37
Total heating capacity recovered		kW	10,7	19	36	57,9	75,9	118	156
Recovered sens. heating capacity		kW	7,4	13,1	24,9	40,1	52,5	82,1	108
Winter recovery unit efficiency		%	80	80	80	80	80	80	80
Total recovered cooling capacity		kW	2,8	4,9	9,3	14,9	19,5	30,5	40,3
Recovered sens. cooling capacity		kW	2,7	4,7	9	14,4	18,9	29,6	39
Summer recovery unit efficiency		%	80	80	80	80	80	80	80
Total number of fans		n°	2	2	2	2	2	4	4
Sound power level		dB(A)	65,6	67	75,3	76,7	78	78	79
Unit power supply		V/h/Hz	400V/3N/50Hz						
RBC Hot water coil									
Heating capacity	(2)	kW	9,5	16,9	27,4	46,7	60,1	95,8	130,4
Water flow rate	(2)	m^3/h	0,8	1,4	2,3	4	5,2	8,4	11,3
Water side pressure drop	(2)	kPa	9	8	8	7	11	16	20
RBF Cold water coil									
Total cooling capacity	(3)	kW	10,5	19,5	34,7	59,8	80	127,4	171,3
Sensitive cooling capacity	(3)	kW	4,1	7,6	13,9	23,9	32	51	68,5
Water flow rate	(3)	m^3/h	1,6	2,9	6	10,3	13,7	21,9	29,5
Water side pressure drop	(3)	kPa	15	8	7	23	33	34	3,2

For the performance of the H version, contact the head office.

Heating
Fresh air flow rate equal to the air expulsion flow rate; Outdoor air temperature (in) -5°C 80% r.h.; Room temperature 20°C, 50% r.h.

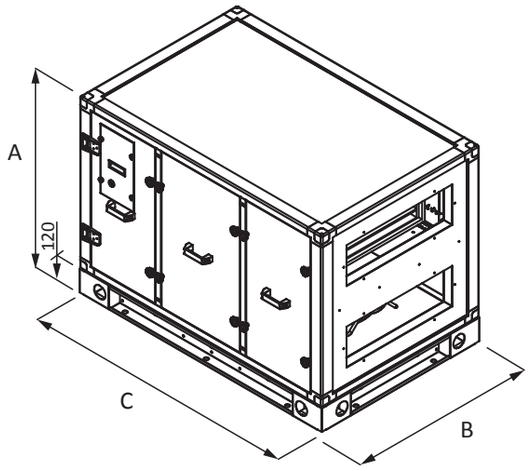
Cooling mode
Fresh air flow rate equal to the air expulsion flow rate; Outdoor air temperature (in) 35°C 50% r.h.; Room temperature 26°C, 50% r.h.

(1) With nominal air flow rates and useful pressure of 100Pa.
(2) Coil water inlet temperature 70°C; Coil inlet-outlet temperature difference 10°C; Coil air intake temperature 15°C; Water pressure drops not included with a 3-way valve (standard).
(3) Coil water inlet temperature 7°C; Coil inlet-outlet temperature difference 5°C; Coil air intake temperature 28°C, 75% RH; Water pressure drops not inclusive with a 3-way valve (standard).

Sound power level of the flow fan not ducted with useful static pressure equivalent to 0 Pa.

Dimensional data (mm)

Horizontal installation



ERSR			07	09	12	15	17	21	24
Height	A	mm	965	1285	1445	1765	2085	2405	2725
Width	B	mm	895	1005	1375	1695	1855	2335	2665
Depth	C	mm	1375	1535	2045	2365	2365	3005	3005
Weight		kg	240	340	570	820	1010	1610	1980

Code: SERSRUY.03 /1501

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AIR HANDLING UNIT

The air handling units customized according to dierent needs of the installer to carry the best comfort and the best quality in civil commercial and industrial.

AIR HANDLING UNITS

		Air flow rate (m^3/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
Compact air Handling units					
UFB20W	Floating floor installation	140-290	0,8-1,5	0,9-2,9	162
TUN	Air flow rate 900÷4000 m^3/h	900-4000	4,7-29,4	11,2-51,1	164
TS	Air flow rate 930÷4200 m^3/h	930-4200	4,8-24,8	9,8-52,0	168
TDA	Air flow rate 800÷3500 m^3/h	800-3500	4,9-22,3	2,5-45,4	170
TA	Air flow rate 900÷5000 m^3/h	900-5000	4,7-39,6	2,2-87,5	172
TN	Air flow rate 3000÷23000 m^3/h	3000-23000	10,7-155,1	14,7-334,1	176
Modular air handling units					
NCD	For hospitals	1134-79475	-	-	180
SPL 025-130	For wellness areas	2500-13000	-	-	184
SPL 160-250	For wellness areas	16000-25000	-	-	188
ENERGY	High energy efficiency version	3600-25000	-	-	192
Packaged roof-top units					
RTX 01-08	For medium crowding applications	-	12,3-50	12,5-51,0	196
RTX 09-16	For medium crowding applications	-	51,6-131,9	50-133,9	200
RTX 17-23	For medium crowding applications	-	152-305	153-311	204
RTY 01-10	For high crowding applications	-	30-134,8	29,1-142,2	208

UFB_W

Handling units with Brushless motor Inverter (EC)
Floating floor installation

INVERTER TECHNOLOGY

Variable Multi Flow

VMF





Typical installation

• LOWER ELECTRICITY CONSUMPTION
• VERY QUIET OPERATION
• EASY MAINTENANCE

Features

Air handling terminal for installations in floating floor, also called floating or raised floor.
IS a unit consisting of a fan unit with **brushless inverter motor,** enclosed in a metal structure with mixing chamber equipped with motor-driven damper, filter and electronic card.
The use of these units is expected within a floating floor, often used in offices or equipment rooms for data centre and similar.
In these systems there is often an air handling unit that cools the environment by entering the treated air in the underfloor and the buster units combine to improve the distribution in the rooms and, depending on the version, perform localized after-treatment.
Using the two ambient air temperature sensors (return air) and the underfloor air temperature sensors, the electronic regulation through the positioning of the motor-driven damper, performs a mix to reach the temperature setpoint set with the local user interface (type VMF-E4) or by the supervision system.

Versions
UFB20W booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using a water coil (heating, cooling, dehumidification) for the control of the room temperature.

- Unit is easy to install, as completely compatible with squares 600x600 mm used in these applications. Using the normal support systems of such floating floors allow to fully replace a square, obtaining a perfect joint, in line with the rest of the floor, with no "step".
- **Centrifugal fan with Brushless inverter** with continuous speed variation, 0-100%, which allows the exact adjustment to the requests of the internal environment without temperature fluctuations. Also allows an electric savings and better acoustic comfort.
- Thickness contained (219 mm)
- **Water coil** for a possible post-heating for the temperature control in the room
- For a better air quality, the UFB are equipped with electro-statically pre-loaded filters.

Accessories

- **DSC4UFB**: Condensate drainage device for use when natural run-off is not possible.
- **VCF_U**: Kit consisting of motor-driven 3-way valve with insulating shell, insulated copper couplings and pipes. Versions with 230V~50Hz power supply
- **VMF-E4:** User interface from walls, allows the control of the functions through the capacitive keyboard. **Obligatory to provide 1 for each Master unit**

For more information about the VMF system, refer to the specific documentation available on the site www.aermec.com

Technical data

UFB_W			20		
Fan speed			**H**	**M**	**L**
Heating performance					
2-pipe systems					
Heating capacity (70°C)	(1)	kW	2.96	2,53	1,91
Water flow rate	(1)	l/h	260	222	167
pressure drops	(1)	kPa	6	4	3
Heating capacity (50°C)	(2)	kW	1.77	1.51	1,13
Water flow rate	(2)	l/h	258	210	144
pressure drops	(2)	kPa	6	5	2
Cooling performance					
Total cooling capacity	(3)	kW	1,50	1.22	0,84
Sensible cooling capacity	(3)	kW	1.24	1,00	0,67
Water flow rate	(3)	l/h	258	210	144
pressure drops	(3)	kPa	6	5	3
Water content		l			
Fan					
Fan		type/no		centrifugal/1	
Air flow rate		m³/h	290	220	140
Noise levels					
sound power level	(4)	dB(A)	50	43	31
Sound pressure level		dB(A)	42	35	23
Connections diameter					
Standard coil		Ø		1/2"	
Electrical characteristics					
Input power		W	12	8	5
Input current		A		0.12	
Electrical wirings		%	90	68	36
Power supply		V/ph/Hz		230V~50Hz	

H maximum speed; **M** average speed; **L** minimum speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

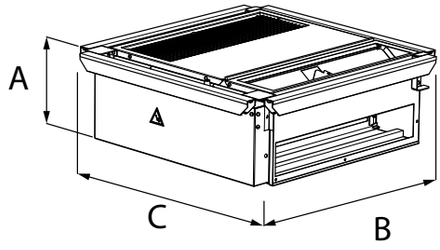
(2) Room air 20°C d.b.; Water (in) 50°C; Water flow rate as in cooling mode

(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C

(4) Sound power based on measures made in compliance with Eurovent regulation 8/2

Sizes and weights

UFB			20W
Height	A	mm	219
Width	B	mm	571
Depth	C	mm	572
Weight		kg	16.5



Code: SUFBWUI.00/1509

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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TUN

Ductable air-conditioning unit



- **UNIVERSAL CONFIGURATION**
- **VERSION WITH 4–6 ROW COIL**
- **VERSION WITH EXTRACTOR**

Features

The air-conditioning units of the TUN series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements

• The **structure** is made of 1.5 mm thick hot galvanised sheet metal, insulated internally with a V0 insulation class. The unit is designed for any flow and/or intake channels to be connected. The unit can be installed horizontally or vertically and both are facilitated by the relative brackets.

• **Air-filtering** relies on standard G2 class filters in accordance with EN779 (6 mm thick), positioned on intake.

• Forward blade double intake centrifugal fans with a directly coupled motor. The single-phase 230V-50Hz multi-speed motor has three speeds that are selected via a control.

• Internal condensate **drip tray** made of 1 mm thick hot galvanised sheet metal.

• **4-6 row coils**, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.

• Post-heating 2-row coils **are also available**, made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes.

Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

Fields configurator:

1 2 3	4 5	6	7
Code	Size	Version	Configuration

Identication:
TUN
Size:
10, 15, 20, 25, 40
Version:
4 - 4 row coil
6 - 6 row coil
Configuration:
P - Powered

Example of a sale code: **TUN104P**
This is a TUN unit, size 10 with a powered 4-row coil.

Accessories

• M2S Mixing chamber 2 dampers
Section made of galvanised steel sheet with two air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

• M3S Mixing chamber 3 dampers
Section made of galvanised steel sheet with three air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pins made of galvanised steel. It must be coupled with the VRF accessory.

• FTF Soft bag filter section
Section made of galvanised steel sheet with F6 filtering degree soft bag filters. For different filtering degrees please contact the Aermec Sales Technical Dept. It must be coupled with a powered unit.

• B2R 2 row water coil
For 4-pipe systems, positioned internally, downstream the main coil.

• PBE Section with post-heating coil
The electric coil consists of armoured resistances fitted with a twin safety thermostat.

• SSL Module with silencer baffles
Section made of galvanised steel sheet with mineral wool silencer baffles covered in a polyethylene film in order to prevent flaking.

• S2Z 2-area damper (70-30%)
Damper made of galvanised steel sheet with opposite louvers for the external air flow to blend with the air circulation flow. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

• VRF Return ventilating section with a G4 filter
Ventilating unit equipped with an electronic rev shifter, contained in a galvanised steel sheet section with flat filters having a G4 efficiency (EN779).

• PMM Plenum with circular flow attachments
1.5 mm Plenum made of hot galvanised sheet metal. The plenum has multi-diameter circular plastic fittings (200 mm, 180 mm and 150 mm) for circular pipes to be connected.

• TPMC Plenum of delivery
Plenum to be used for the connection with circular canals. Made of galvanized steel with insulating mat with circular nozzles Three sections closed. It can be used as a plenum, both as a plenum aspiration with circular channels.

• PMC Closed flow plenum
1.5 mm Plenum made of hot galvanised sheet metal. The plenum allows the flow to turn 90°. The installer must make the flow aperture.

• SAS Intake damper
Air calibration damper with louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

• GMD Flow grid with adjustable louvers
Grid with double row adjustable louvers for air to be introduced in the relative room. It can be installed directly on to the appliance by removing the flanges or on to the wall.

• GAP Intake grid
With louvers tilted at 45°; it can be installed directly on to the appliance by removing the flanges or on to the wall.

• FPI G4 filters for lower intake

• FPF G4 filters

• PX Control panel with only the switch-over

• WMT 05 Electro-mechanical thermostat
For fan coils installed in 2-pipe systems. The panel must be installed on the wall and protected electrically with an internal fuse. It has the following functions: on / off switch; cursor to select the heating / cooling modes (manual season change); cursor to select the fan speed (high, medium and low); temperature selector (+5°C to 30°C)

• WMT10 Control panel
For fan coils installed on the wall. Controls the fan coil operation according to the set mode. The panel must be wall mounted; it is to be used in 4-pipe and 2-pipe systems and systems with 2-pipes with resistance, with the possibility of connecting two ON - OFF type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse. The control has the following functions:
1) cursor to select the cooling or heating mode;
2) manual season change;
3) manual selection of the fan speed;
4) selection of the desired room temperature (+ 10°C to 30°C);
5) 2-pipe system management;
6) 4-pipe system management;
7) 2-pipe system management (cooling) + electrical resistance (heating);
8) thermostatic ventilation;
9) continuous ventilation;
10) continuous ventilation in cooling mode and thermostatic in heating mode.

Accessories compatibility

	TUN 10	TUN 15	TUN 20	TUN 25	TUN 40	TUN 40P
M2S	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5
M3S	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5
FTF	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5
B2R	B2R11	B2R21	B2R31	B2R41	B2R41	B2R51
PBE	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7
SSL	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5
S2Z	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5
VRF	VRF1	VRF3	VRF4	VRF5	VRF6	VRF7
PMM	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5
TPMC	TMPC1	TMPC2	TMPC3	TMPC4	TMPC4	TMPC5
PMC	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5
SAS	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5
GMD	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5
GAP	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5
FPI	FPI11	FPI12	FPI13	FPI14	FPI14	FPI15
FPF	FPF1	FPF2	FPF3	FPF4	FPF4	FPF5
PX	•	•	•	•	•(2)	•(2)
WMT 05	•	•(1)	•(1)	•(1)	•(2)	•(2)
WMT 10	•	•(1)	•(1)	•(1)	•(2)	•(2)
SIT3	•	•	•	•	•	•

(1) SIT3 is to be used and the 2A fuse is to be replaced with a 4A fuse
(2) Install a relay, one per speed

Technical data

			10	15	20	25	40	10P	40P
Cooling capacity with:									
4-row coil (1)	total	kW	4,7	9,3	12,5	16,5	23,3	4,7	26,4
	sensible	kW	3,6	6,6	8,7	11,4	16,3	3,6	18,2
6-row coil (1)	total	kW	6,2	11,1	14,1	18,5	26,6	6,2	29,4
	sensible	kW	4,4	7,6	9,8	12,7	18,5	4,4	20,1
Water flow rate									
4-row coil		l/h	804	1599	2141	2832	4002	804	4536
6-row coil		l/h	1072	1910	2420	3184	4572	1072	5051
Pressure drop									
4-row coil (2)		kPa	3	16	33	33	60	3	56
6-row coil (2)		kPa	9	34	20	20	37	9	28
Heating capacity with		kW							
4-row coil (2)	total	kW	11,2	19	24,9	32,3	46,7	16,6	51,1
6-row coil (2)	total	kW	12,5	21,1	27,5	35,4	52,2	18,5	56,1
4-row coil	total	kW	5,5	9,3	12,1	16	25,9	6,4	30,8
6-row coil	total	kW	6,1	10,5	13,6	17,6	28,9	7,2	34,8
Water flow rate									
4-row coil		l/h	978	1663	2183	2831	4089	978	4475
6-row coil		l/h	1097	1849	2410	3101	4573	1097	4909
Pressure drop									
4-row coil		kPa	4	13	24	24	46	4	41
6-row coil		kPa	7	24	15	14	28	7	20
Heating capacity 2-row water coil		kW	7	11,7	15,3	20,5	27,9	7	31,8
Water flow rate		l/h	609	1026	1339	1792	2444	609	2786
Pressure drop		kPa	4	7	7	10	17	4	10
Electrial coil:									
Electric coil capacity		kW	4	8	10	12	20	6	20
No. of stages of the electric coil		n°	2	2	2	2	2	2	2
Power supply						400V/3/50Hz			
fan:									
Air flow rate (3)		m3/h	900	1500	2000	2500	4000	900	4000
Static pressure		Pa	110	150	170	150	120	330	220
Fan power supply		W	357	713	886	874	1771	713	1771
Fan input current		A	1,6	3,1	3,9	3,8	7,7	3,1	7,7
Poles		n°	2	2	4	4	4	2	4
Power supply						230V/1/50Hz			
Filters:									
Efficiency of flat filters (4) std/opt	STD/OPT		G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4
Efficiency of bag filters			F6	F6	F6	F6	F6	F6	F6
Sound data:									
Sound power		dB(A)	68	72	77	78	79	71	80
Hydraulic connections:									
Main coil collectors		Ø	1″	1″	1″	1″	1″	1″	1″
Additional coil		Ø	¾"	¾"	¾"	¾"	¾"	¾"	¾"

Unit designed to operate with all recirculating air or maximum 10% of external air

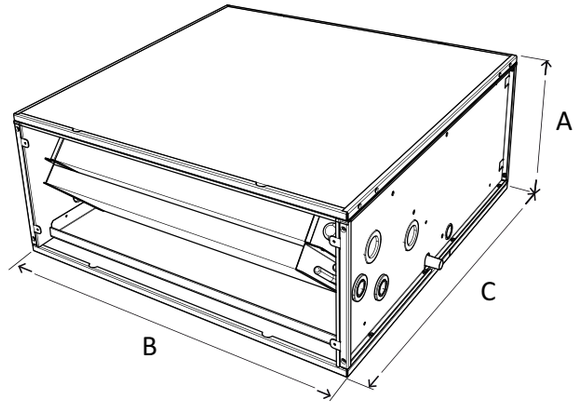
(1) Temperature of incoming air 27°C b.s.|19°C b.u.
Water temperature inlet 7°C
Water temperature outlet 12°C

(2) Temperature of incoming air 20°C
Water temperature inlet 70°C
Water temperature outlet 60°C

(3) At nominal flow rate with 4-row coil

(4) In compliance with EN 779

Dimensional data (mm)



TUN HORIZONTAL INSTALLATION WITH EXTRACTOR
FRONT VIEW

Mod. TUN		10	10P	15	20	25	40	40P
DIMENSIONS OF A HORIZONTAL INSTALLATION AND "EXTRACTOR" CONFIGURATION								
Height (A)	mm	300	300	300	390	390	390	390
Width (B)	mm	700	700	1050	1050	1475	1475	2100
Length (C)	mm	700	700	700	850	850	850	1000
Connection projection	mm	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2

UNIT NET WEIGHTS		10	10P	15	20	25	40	40P
4-row coil	kg	33	37	47	59	88	88	108
6-row coil	kg	35	38	49	61	92	92	108

Cod.: STUNUY.11 / 1705

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TS

Air handling units with cooling capacity from 4.85 up to 24.8 kW



Characteristics

- Compact unit for horizontal installation
- Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation
- Condensate drip tray in stainless steel AISI 304 with insulation
- Coils with aluminium fins and copper pipes
- Statically and dynamically balanced centrifugal fans
- Three-speed electrical motor with running capacitor permanently activated and internal thermal protection
  NOTE: Possibility to also have the engine with five speed.
- Transmission system relay card for each speed (excluding the models TS13 and TS16)
- Useful static pressure available for any canalisation
- Large choice of distance commands
- Wide range of accessories to meet varying needs (class G3 air filter, post-heating coils, plenum suction assembly, mixer section, suction grille, delivery flanges with circular outlets or rectangular outlet)

Choice of Unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field configurer:

1 2	3	4
Code	Size	Row coil
TS	**1 2 3 4 5 6 7**	**3 4 6**

Code:
TS
Size:
1, 2, 3, 4, 5, 6, 7
Coil:
3 - 3-row coil
4 - 4-row coil
6 - 6-row coil

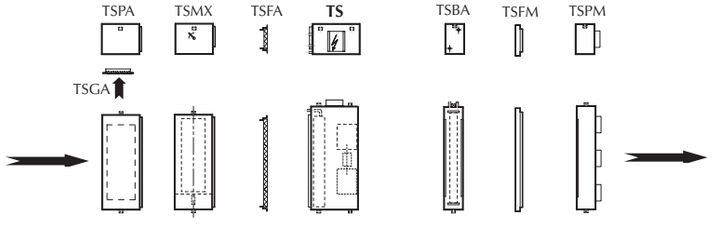
Models available:

Standard with 3 speed electrical motor
TS 13 - 16 - 23 - 34 - 36 - 43 - 46 - 53 - 56 - 63 - 74 - 76

with 5 speed electrical motor
TS 435V - 465V - 535V - 565V - 745V - 765V

Accessories

- **TSBA:** 2-row coil for post-heating, contained in a delivery installation plenum
- **TSFA:** Class G4 air filter
- **TSFM:** Delivery flange with rectangular section
- **TSGA:** Horizontal suction grille with fixed fins to produce suction from below together with the TSPA accessory
- **TSMX:** Section that mixes the recirculating air and the external air. Calibration of the mix via the damper, motorisation is possible
- **TSPA:** Plenum with suction from below, to which the TSGA grille can be applied
- **TSPM:** Delivery plenum to be connected to the circular channels (with 2, 3 or 4 circular, 200 mm flanges).
- **VCT 2-way or 3-way valve**
  These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility.
  These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **Control panels:**the characteristics of the control panels are described on the appropriate card.



Technical data

Model		U.M.	TS 13	TS 16	TS 23	TS 34	TS 36	TS 43	TS 46	TS 53	TS 56	TS 63	TS 74	TS 76
								TS435V	TS465V	TS535V	TS565V		TS745V	TS765V
Cooling capacity		kW	4.85	5.80	7.9	9.6	10.5	11.1	13.3	13.9	16.5	16.6	21.9	24.8
Sensible cooling capacity		kW	3.75	4.45	6.4	7.6	8.3	8.95	10.7	9.8	11.7	13.1	17.8	20.1
Water side pressure drop		kPa	21	9	24	24	16	23	17	32	27	26	28	26
Water flow rate		l/h	830	1000	1360	1650	1810	1910	2290	2390	2840	2860	3770	4270
Heating capacity (70°C)		kW	9.80	12.58	15.50	19.70	21.52	21.60	27.49	25.90	32.89	35.50	46.30	52.06
Water side pressure drop		kPa	12	8	17	20	13	17	13	21	21	20	23	21
Water flow rate		l/h	840	1080	1330	1690	1850	1860	2360	2230	2830	3050	3980	4480
Nominal air flow rate		m^3/h	930	930	1500	1600	1600	2050	2050	2400	2400	3600	4200	4200
Useful static pressure	(1)	Pa	90	55	100	85	45	115	75	105	70	120	115	75
TSFA filter pressure drop	(2)	Pa	13	13	11	12	12	13	13	11	11	16	25	25
Coil rows		n°.	3	6	3	4	6	3	6	3	6	3	4	6
Coil water connections		Ø"	G 3/4"	G 1"	G 3/4"	G 3/4"	G 1"	G 3/4"	G 1"	G 3/4"	G 1"	G 1"	G 1"	G 1¼"
Maximum water temperature		°C	80											
Ventilation speed number Motors		bar	15	15	15	15	15	15	15	15	15	15	15	15
Fans		n°.	1	1	2	2	2	2	2	2	2	2	2	2
Ventilation speed number			3	3	3	3	3	3	3	3	3	3	3	3
Motors		n°.	1	1	1	1	1	1	1	1	1	1	1	1
Motor maximum power		W	225	225	345	345	345	550	550	550	550	600	830	830
Maximum input current		A	1	1	1,9	1,9	1,9	2,6	2,6	2,6	2,6	3,9	5,5	5,5
Sound pressure level		dB(A)	50	50	51	52	52	55	55	55	55	58	58	58
Power supply			230V~50Hz											

Unit designed to operate with all recirculating air or maximum 10% of external air

Cooling
Room air temperature 27°C b.s./19°C b.u.; Water inlet temperature 7°C; ΔT water 5°C.

Heating (70°C)
Room air temperature 20°C b.s.; Water inlet temperature 70°C; ΔT water 10°C.

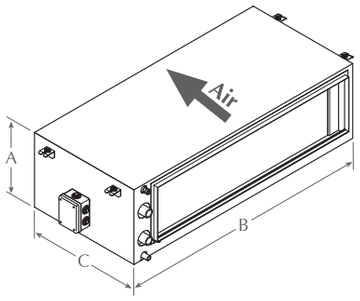
(1) Rated capacity (maximum speed) without air filter

(2) Air filter (TSFA accessory) at rated capacity

TS	TSBAx	TSFAx	TSFMx	TSGAx	TSMXx	TSPAx	TSPMx	VCT	VCT	FMT	PXAE	WMT	SWA**
	10	10	10	10	10	10	10	(2 vie)	(3 vie)	10		5	
	20/30	20/30	20/30	20/40	20/30	20/30	20/30			21		10	
	40	40	40		40	40	40					6	
	50	50	50	50/60/70	50	50	50						
	60/70	60/70	60/70		60/70	60/70	60/70						
13 - 16	•*	•*	•*	•*	•*	•*	•*	VCT102	VCT103	•	•	•	•(x 1-2)
23	•*	•*	•*	•*	•*	•*	•*	VCT102	VCT103	•	•	•	•(x 1-2)
34 - 36	•*	•*	•*	•*	•*	•*	•*	VCT102	VCT103	•	•	•	•(x 1-2)
43 - 46	•*	•*	•*	•*	•*	•*	•*	VCT202	VCT203	•	•	•	•(x 1-2)
53	•*	•*	•*	•*	•*	•*	•*	VCT202	VCT203	•	•	•	•(x 1-2)
56	•*	•*	•*	•*	•*	•*	•*	VCT402	VCT403	•	•	•	•(x 1-2)
63	•*	•*	•*	•*	•*	•*	•*	VCT402	VCT403	•	•	•	•(x 1-2)
74 - 76	•*	•*	•*	•*	•*	•*	•*	VCT402P	VCT403P	•	•	•	•(x 1-2)

* = The code of these accessories is obtained by substituting the letter "x" with the number indicating the corresponding size of the unit
** = SWA accessories are matched with FMT21 control panels.

Dimensions (mm)



		TS13	TS16	TS23	TS34	TS36	TS43	TS46	TS53	TS56	TS63	TS74	TS76
Height (A)	[mm]	295	295	295	295	295	325	325	325	325	375	375	375
Width (B)	[mm]	645	645	1000	1000	1000	1100	1100	1345	1345	1345	1345	1345
Depth (C)	[mm]	520	520	520	520	520	600	600	600	600	600	600	600
Weight	[kg]	25	27	35	38	42	42	46	48	52	56	61	67,5

Cod.: STS1UY.07 / 1702

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TDA

Air handling units
Air flow rate from 800 to 3,500 cu.m/h



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSION WITH 3–4 ROW WATER–TYPE COIL**
- **VERSION WITH 2–ROW DIRECT EXPANSION COIL**
- **VERSION WITH EXTRACTOR**

Characteristics

The conditioning units in the TDA range have been designed for small and medium sized rooms in civil, commercial and hotel type systems.
The units are designed to guarantee high head levels and are suitable for both vertical and horizontal installation, to ensure greater versatility of use. The outstanding aesthetic finish of the product makes it perfect for installation in box rooms, bathrooms, suspended ceilings or in the room itself.
The wide range of sizes and accessories available means it's easy to choose the best model for the specific requirements.
•**Structure** with hot galvanised steel sandwich panels, 15mm thick, with interposed polyurethane foam (density 40kg/m3). The delivery and suction panels are equipped with flanges for the collets to any air channels and can be moved to create different air flow configurations. The horizontal or vertical fixing to the walls of the unit is made possible by the appropriate brackets.
• **New centrifugal fans** with high head levels, double suction, forward blades and directly coupled motor. The single-phase 230V-50Hz motor is multi-speed (of which three speeds can be selected).
• **Condensated collection** basin in galvanised steel, suitable for both vertical and horizontal installation.
• **Coils** with 3 rows, that can be fed with hot or refrigerated water. Made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes. They are equipped with threaded sleeves for the plumbing connections and the air breather valve. The coils can be rotated on site.
• **A 2-row**, direct expansion coil is also available. It is made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes.

Accessories

- **FAF filter G4 on intake**
  Contained in the special housing, it is made of synthetic fibre and pleated geometry; the U-shaped frame is in galvanised sheet metal with two galvanised wire support nets
- **SM Mixing chamber with G4 filter and dampers**
  Galvanised steel housing complete with two air adjustment dampers with opposed fins in galvanised steel. The housing comes complete with a synthetic fibre filter (efficiency class G4, in accordance with standard EN779).
- **SR Intake damper**
  Consisting of a frame with galvanised steel ribbed fins. The fins are moved by nylon toothed wheels.
- **GM Delivery grille**
  Grille with double row of adjustable fins to introduce air into the room.
- **GA Suction grille**
  With tilted fins fixed at 45°; can be installed directly on the device (by removing the flange) or on the wall.
- **CMA Outer casing for grille**
- **BP One-row water-type post-heating coil applied outside the unit**
  Contained in a special, thermally-insulated housing, it is installed on the air delivery flange only and consists of a 1-row turbo-type coil.
- **BR Electric post-heating coil applied outside the unit**
  The machines can be fitted with the electric coil accessory of suitable capacity. It is installed downstream of the finned coil only.
- **VCT 2-way or 3-way valve**
  These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility.
  These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.
- **PM Delivery plenum with circular start-up**
  Sandwich panel in hot galvanised steel, with interposed polyurethane foam (40kg/m3). The panel is 15mm thick. It is installed in place of the delivery panel with rectangular flange, using the same 4 self-threading screws.
- **Control panels:**
  PX with selector only
  WMT05 Electromechanical thermostat.
  WMT10 control panel

	TDA09	TDA15	TDA21	TDA 28	TDA37
FAF	FAF1	FAF2	FAF3	FAF4	FAF4
SM	SM1	SM2	SM3	SM4	SM5
SR	SR1	SR2	SR3	SR4	SR4
GM	GM5	GM6	GM7	GM8	GM8
GA	GA5	GA6	GA7	GA8	GA8
CMA	CMA5	CMA6	CMA7	CMA8	CMA8
BP	BP1	BP2	BP3	BP4	BP5
BR	BR1	BR2	BR3	BR4	BR5
VCT (2 way)	VCT102	VCT202	VCT402	VCT402P	VCT402P
VCT (3 way)	VCT103	VCT203	VCT403	VCT403P	VCT403P
PM	PM1	PM2	PM3	PM4	PM4
PX	•	•	•	•	•(2)
WMT05	•	•(1)	•(1)	•(1)	•(2)
WMT10	•	•(1)	•(1)	•(1)	•(2)

(1) Envision the use of SIT and the replacement of the AA fuse with one AA fuse
(2) Envisions return relay, one per speed

Choice of Unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field configurer:

1 2 3 — Code
4 6 — Size
6 — Version

Code:
TDA

Size:
09, 15, 21, 28, 37

Version:
3 - 3-row water coil
4 - 4-row water coil
E - 2-row direct expansion coil
X - Extractor (without coil)

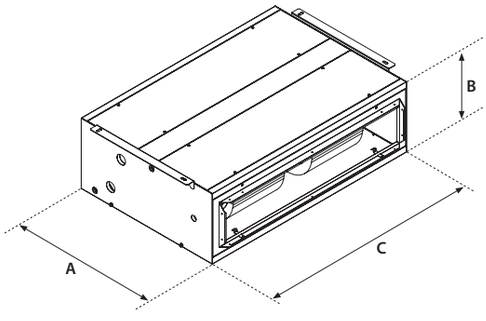
Technical data

Mod. TDA			9	15	21	28	37
Nominal air flow rate		m3/h	800	1400	2000	2700	3500
		l/s	222	389	556	750	972
Useful static pressure (1)		Pa	277	330	227	150	240
Cooling capacity with 3-row coil (2)	total	kW	4,90	7,40	11,10	14,70	17,90
	sensible	kW	3,50	5,60	8,20	10,90	13,70
Cooling capacity with 4-row coil (2)	total	kW	6,10	9,70	13,10	18,40	22,30
	sensibile	kW	4,30	6,90	9,40	12,50	15,20
Cooling capacity with R-407C coil (3)	totale	kW	5,10	7,50	10,70	14,10	16,70
	sensibile	kW	3,50	5,20	7,40	9,90	12,40
Heating capacity with 3-row coil (4)		kW	10,40	16,60	24,20	32,10	41,20
Heating capacity with 4-row coil (4)		kW	12,10	19,90	27,30	36,80	45,40
Heating coil capacity for 4-pipe systems (4)		kW	5,20	8,80	12,60	16,40	20,90
Heating capacity with 3-row coil (5)		KW	5,10	8,10	11,90	15,70	20,10
Heating capacity with 4-row coil (5)		KW	6,00	9,80	13,40	18,20	22,30
Heating capacity with coil for 4-pipe systems (5)		KW	2,50	4,30	6,00	7,80	10,00
Electric coil capacity		KW	4	6	8	10	12
Electric coil power supply					230V~/50Hz		
Fans		n°	1	2	2	1	2
Motors			1	2	2	1	2
Total fan input power		kW	0,357	0,713	0,736	0,874	1,771
Fan input current		A	1,6	3,1	3,2	3,8	7,7
Fan power supply					230V~/50Hz		
Filter efficiency (6)			G4	G4	G4	G4	G4
Sound power level (7)		dB(A)	62	63	70	72	73
Connections							
Water battery collectors		Ø mm	1″	1″	1″	1″	1″
Direct expansion liquid coil pipes		Øi mm	10	10	12	16	16
Direct expansion gas coil pipes		Øu	18	22	22	28	28
Condensate discharge		Ø mm	3/8″	3/8″	1/2″	1/2″	1/2″

Unit designed to operate with all recirculating air or maximum 10% of external air

(1) at nominal flow rate with 3-row coil
(2) Incoming air temperature 27°C d.b. 19°C w.b.; water temperature (In-Out) 7°C-12°C
(3) Incoming air temperature 27°C d.b. 19°C w.b.; average evap. temp. 7°C
(4) Incoming air temperature 20°C; water temperature (In-Out) 70°C-60°C
(5) Incoming air temperature 20°C; water temperature (In-Out) 45°C-40°C
(6) In accordance with standard EN 779
(7) In accordance with standard UNI EN ISO 9614

Dimensions (mm)



TDA		9	15	21	28	37
Height (B)	mm	300	320	320	380	380
Width (C)	mm	920	1000	1400	1400	1400
Lenght (A)	mm	630	670	670	790	790
Net weight *	kg	42	53,00	71,00	88,00	91,00

(*) with 4-row coil

Cod.: STDAUY.02 / 1801

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TA

Air handling unit with 4 row cooling coil from 4.5 up to 32 kW
5.5 a 40 kW 6 row coil
heating efficiency with 4 row coil from 14.0 up to 78.0 kW
15.5 a 87.5 kW 6 row coil



- **HORIZONTAL OR VERTICAL CONFIGURATION**
- **VERSION WITH 4–6 ROWS WATER COIL**
- **VERSION WITH 4 ROW EXPANSION COIL USING R410A**
- **VERSION WITH EXTRACTOR**

Features

The air conditioning units in the TA range are destined to civil, commercial and hotel systems, for applications in small to medium sized environments.

The units in the TA range are characterised for their compactness (indispensable requisite for typical suspended-ceiling applications), the low noise and high useful static pressure.

The great availability of accessories (e.g. bag filters and the mixing chambers with 3 dampers) allows to satisfy the most varied plant requirements

- **Structure** realised with sandwich panels with thickness of 15 mm with polyurethane (density 40 kg/m3). The intake panel is equipped with a flange for fitting to any air channels. Horizontal or vertical fixing to a wall is made easy by the brackets.
- **Filtration** of the air entrusted to class G4 filters in compliance with EN779 (thickness 50mm) as per standard positioned at intake.
- **Fans** double intake centrifugal with forward blades and directly coupled motor.
  The 230V-50Hz single-phase motor has many speeds, of which three can be selected via the control panel.
- **Condensate drip tray** interior isolated in aluminium alloy.
- **Coils with 4, 6** rows that can be fed with hot or cooled water realised in coil in copper piping with aluminium louvers blocked via mechanical expansion of the pipes. Threaded sleeves are supplied for the hydraulic attachments and the air vent valve.
  The possibility to rotate the coils on site is envisioned.
- Also available are coils with 4 rows with direct expansion operating with R410A fluid and post-heating coils with 1 and 2 rows realised in copper piping with aluminium louvers blocked via mechanical expansion of the pipes.

Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

Fields configurator:

1 2	3 4	5	6
Code	Size	Configuration	Version

Code:
TA

Size:
09, 11, 15, 19, 24, 33, 40, 50

Configuration:
H - Horizontal
V - Vertical
X - Extractor

Version:
4 - Coil with 4 rows
6 - Coil with 6 rows
E - R410A coil with direct expansion 4 left rows

Example of a sale code: **TA09H4**
This is a TA unit, size 09 horizontal with 4 row coil.

Accessories

- **M2S 2 damper mixing chamber**
  Galvanised sheet steel section complete with two air calibration dampers with galvanised sheet steel louvers.
  Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.

- **M3S 3 damper mixing chamber**
  Galvanised sheet steel section complete with three air calibration dampers and galvanised sheet steel louvers.
  Louver pitch 50 mm; regulation pins in galvanised steel with diameter 8 mm mechanisation.
  Va must be coupled with the VRF accessory

- **FTF Soft bag filters section**
  Galvanised sheet steel section complete with soft bag filters with F6 filtration level.
  For different filtrations, contact the AERMEC technical-sales dept.

- **B2R 2 row water coil**
  For 4 pipe systems, positioned internally, downstream from the main coil.
  Threaded sleeves are supplied for the hydraulic attachments and the air vent valve.

- **VCT 2-way or 3-way valve**
  These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility.
  These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.

- **PBE Section with post-heating coil**
  The electric coil is made up from armoured resistances equipped with double safety thermostat.
- **SSL Module with seven silencers**
  Galvanised sheet steel section complete with seven silencers in mineral wool covered with a polyethylene film to prevent exfoliation.

- **S2Z Damper with 2 areas (70-30%)**
  Galvanised sheet steel damper with opposite louvers for the mixture of the external air flow and the flow of recirculation air. Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.

- **VRF Recovery fan section with G4 filter**
  Fan unit, equipped with electronic varistor of the number of revs. contained in a section in galvanised sheet steel equipped with flat filters with G4 efficiency (EN779).

- **PMM Plenum with multiple circular flows**
  Plenum equipped with sandwich panelling with thickness of 15 mm in galvanised steel with polyurethane insulation. The plenum is supplied with multi-diameter circular attachments (200 mm, 180 mm and 150 mm) in plastic to allow the connection of circular conduits.

- **PMC Closed flow plenum**
  Plenum closed equipped with sandwich panelling with thickness of 15 mm in galvanised steel with polyurethane insulation.
  The plenum allows to turn the flow by 90°.
  The opening of the flow hole is the installer's responsibility.

- **SAS Intake damper**
  Air calibration damper with galvanised sheet steel louvers.
  Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.

- **GMD Flow grid with moveable louvers**
  Grid with double order of moveable louvers for the introduction of air into the room to be conditioned. It can be installed directly onto the appliance by removing the flanges or on the wall.

- **GAP Intake grid**
  With fixed louvers inclined by 45°; can be installed directly onto the appliance by removing the flanges or on the wall.

- **FPI G4 flange filters**
- **PX Switch-over only control panel**

- **WMT 05 Electro-mechanical thermostat**
  For fan coils installed in 2 pipe systems The panel must be installed on the wall and protected electrically by an internal fuse.
  Has the following functions: on/off switch; cursor for the selection of heating/cooling modes (manual season change); cursor for the selection of fan speed (high, medium and low); temperature selector switch (+5°C÷30°C)

- **WMT10 Control panel**
  For can coils with wall installation.
  Control functioning of the fan coil depending on the mode set.
  The panel must be mounted on the wall, it is used on 4 pipe and 2 pipe and 2 pipe with resistance systems, with the possibility of connecting two On - Off type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse.
  The control has the following functions: cursor for the selection of the cooling or heating functioning mode;
  manual season change;
  manual selection of the fan speed
  selection of the desired environment temperature (+10°CA÷30°CA);
  2 pipe systems management;
  4 pipe systems management;
  2 pipe systems management (cooling) + electrical resistance (heating);
  thermostat ventilation;
  continuous ventilation;
  continuous ventilation in cooling mode and thermostat ventilation in heating mode.

Accessories compatibility

	TA 09	TA 11	TA 15	TA 19	TA 24	TA 33	TA 40	TA 50
M2S	M2S1	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5	M2S5
M3S	M3S1	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5	M3S5
FTF	FTF1	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5	FTF5
B2R	B2R1	B2R1	B2R2	B2R3	B2R4	B2R4	B2R5	B2R5
VCT (2 way)	VCT 102	VCT 102	VCT 202	VCT 202	VCT 202 o 402	VCT 402 o402P	VCT 402P	VCT 402P
VCT (3 way)	VCT 103	VCT 103	VCT 203	VCT 403 o403P	VCT 403 o 403P	-	-	-
PBE	PBE1	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7	PBE8
SSL	SSL1	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5	SSL5
S2Z	S2Z1	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5	S2Z5
VRF	VRF1	VRF2	VRF3	VRF4	VRF5	VRF6	VRF7	VRF8
PMM	PMM1	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5	PMM5
PMC	PMC1	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5	PMC5
SAS	SAS1	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5	SAS5
GMD	GMD1	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5	GMD5
GAP	GAP1	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5	GAP5
FPI	FPI1	FPI1	FPI2	FPI3	FPI4	FPI4	FPI5	FPI5
PX	•	•	•	•	•	**•(2)**	**•(2)**	**•(2)**
WMT 05	•	**•(1)**	**•(1)**	**•(1)**	**•(1)**	**•(2)**	**•(2)**	**•(2)**
WMT 10	•	**•(1)**	**•(1)**	**•(1)**	**•(1)**	**•(2)**	**•(2)**	**•(2)**

(1) Envision the use of SIT and the replacement of the 2A fuse with one 4A fuse
(2) Envisions return relay, one per speed

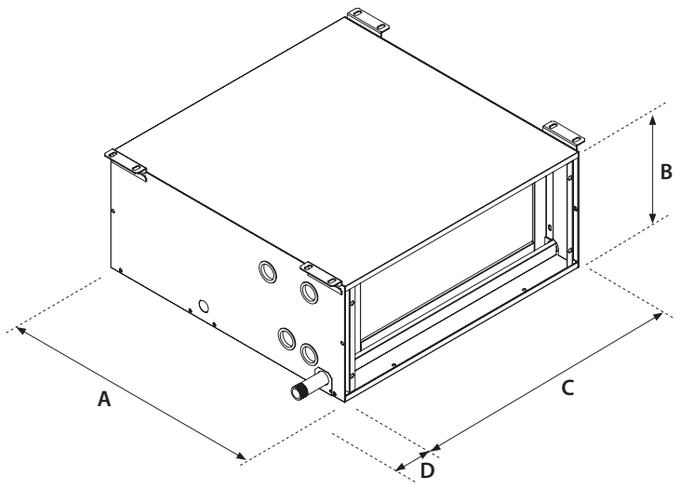
Technical data

Mod. TA			9	11	15	19	24	33	40	50
Nominal air flow rate		m3/h	900	1100	1500	1900	2400	3300	4000	5000
		l/s	250	306	417	528	667	917	1111	1389
Useful static pressure (1)		Pa	110	277	249	223	165	215	220	163
Cooling capacity with 4 row coil (2)	total	kW	4.7	5.7	8.7	12.4	17.3	21.7	27.2	31.8
	sensible	kW	3.5	4.2	6.2	8.3	11.2	14.3	18.0	21.3
Cooling capacity with 6 row coil (2)	total	kW	5.4	6.7	11.7	15.5	20.6	26.3	33.5	39.6
	sensible	kW	3.9	4.7	7.5	9.8	12.8	16.6	20.9	25.0
Cooling capacity with 4 row coil with direct exp.R-410A (3)	total	kW	6.6	7.3	11.0	14.2	19.2	23.0	30.5	34.5
	sensible	kW	4.2	4.7	7.0	9.1	12.1	14.8	19.4	22.3
Heating capacity with 4 row coil (4)		kW	14.2	16.6	23.9	30.8	40.6	52.2	65.8	78.3
Heating capacity with 6 row coil (4)		kW	15.7	18.5	26.6	34.2	44.3	58.0	72.6	87.5
1 row water coil heating capacity for 4 row pipes (8)		kW	5.2	5.7	9.2	11.4	15.9	18.3	25.2	27.7
2 row water coil heating capacity for 4 row pipes (8)		KW	8.4	9.5	14.2	17.9	24.3	29.9	38.9	44.9
Heating capacity with 4 row coil (5)		KW	5.5	6.4	9.3	12.1	16.0	20.6	25.9	30.8
Heating capacity with 6 row coili (5)		KW	6.1	7.2	10.5	13.6	17.6	23.0	28.9	34.8
1 row water coil heating capacity for 4 row pipes (5)		KW	2.2	2.4	4.0	4.9	6.9	7.9	10.9	12.0
2 row water coil heating capacity for 4 row pipes (5)		KW	3.6	4.1	6.2	7.8	10.6	13.0	16.9	19.5
Electric coil capacity		KW	4	6	8	10	12	16	20	24
Number of electric coil stages		n°	2	2	2	2	2	2	2	2
Electric coil power supply						400V-3-50Hz				
Fans		n°	1	2	2	1	1	2	2	2
Motors		n°	1	2	2	1	1	2	2	2
Fans total input power		W	357	713	713	886	874	1771	1771	2852
Fans input current		A	1,6	3,1	3,1	3,9	3,8	7,7	7,7	12,4
Fans power supply						230V-1-50Hz				
Poles		n°	2	2	2	4	4	4	4	4
Flat filters capacity (6)			G4	G4	G4	G4	G4	G4	G4	G4
Soft bag filters efficiency (6)			F6	F6	F6	F6	F6	F6	F6	F6
Sound power level (7)		dB(A)	63	66	67	72	74	75	76	79
Connections										
Coils collectors		Ø inc.	1"	1"	1"	1"	1"	1"	1"	1"
Direct expansion coil pipes	IN	Ø mm.	16	16	16	16	16	16	22	22
	OUT	Ø mm.	22	22	22	22	22	22	28	28
Condensate Drain		Ø inc.	¾	¾	¾	¾	¾	¾	¾	¾

Unit designed to operate with all recirculating air or maximum 10% of external air

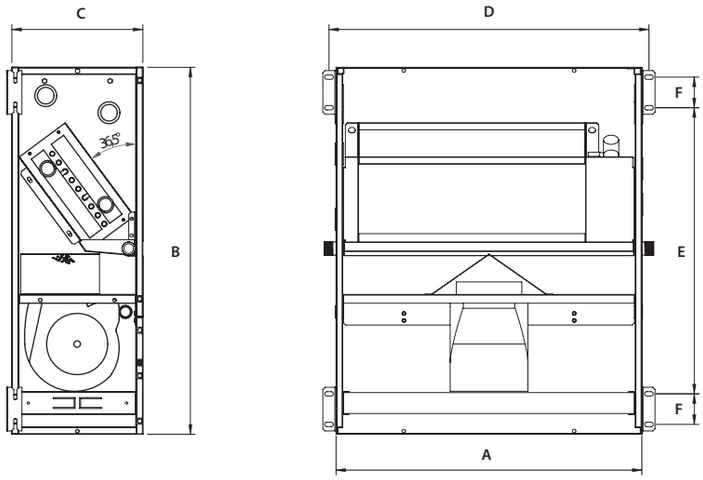
(1) At nominal capacity with 4 row coil
(2) Entry air temperature 27°C d.b. 19°C w.b.; water temperature (Ent-Ex) 7°C - 12°C
(3) Entry air temperature 27°C d.b. 19°C w.b.; medium evap. temperature 2°C
(4) Entry air temperature 10°C; Water temperature (Ent-Ex) 70°C - 60°C
(5) Entry air temperature 20°C; Water temperature (Ent-Ex) 45°C - 40°C
(6) Inc with the EN 779 Standard
(7) Sound power in compliance with UNIX EN ISO 9614-2 Standards
(8) Entry air temperature 15°C; Water temperature (Sent-Ex) 70°C - 60°C

Dimensional data (mm)



TA HORIZONTAL INSTALLATION AND WITH EXTRACTOR

Mod. TA		9	11	15	19	24	33	40	50
HORIZONTAL CONFIGURATION DIMENSIONS AND "EXTRACTOR" CONFIGURATION									
Height (B)	mm	300	300	300	390	390	390	390	390
Width (C)	mm	700	700	1050	1050	1475	1475	2100	2100
Lenght (A)	mm	700	700	700	850	850	850	1000	1000
Connections projection (D)	mm	82	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2	2



TA VERTICAL INSTALLATION

Mod. TA		9	11	15	19	24	33	40	50
VERTICAL CONFIGURATION DIMENSIONS									
Height (B)	mm	840	840	840	1090	1090	1090	1090	1090
Width (C)	mm	300	300	300	390	390	390	390	390
Lenght (A)	mm	700	700	1050	1050	1475	1475	2099	2099
Fixing points	mm								
(D)	mm	732	732	1082	1082	1507	1507	2131	2131
(E)	mm	655	655	655	905	905	905	905	905
(F)	mm	70	70	70	70	70	70	70	70
Number of fans	n°	1	2	2	1	1	2	2	2

UNIT NET WEIGHTS		9	11	15	19	24	33	40	50
4 row coil	mm	28	33	45	60	78	86	135	140
6 row coil	kg	30	35	47	62	81	89	139	144
Extractor	kg								

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Cod.: STAUY.02 / 1801

TN

Air conditioning unit
Air flow from 2300 to 23000 m³/h.



The TN units are destined to commercial and industrial plants for medium size rooms.
The series consists of eight sizes with nominal air flow from 3000 m3/h to 23000 m3/h and allows the filtration, heating and / or cooling treatments.
The performances are ensured by high efficiency heat exchangers and high pressure fans coupled to the motor by variable pulley and belt.
The compactness, low noise level, and the wide range of accessories gives the TN series a huge versatility in order to adapt to customer requirements: in addition to the possibility of transforming the model from horizontal to vertical and the contrary too, it has been chosen to add a enhanced configuration to ensure a higher pressure of the fan.

Features

VERSIONS:
- 8 available sizes in vertical configuration with the possibility t**o change them in horizontal version.**
- **Enhanced configuration** to ensure a higher pressure of the fan.

FRAME:
- The frame is made of aluminum profiles with sandwich panels made of galvanized steel inside and prepainted galvanized steel RAL 9002 outside with polyurethane insulation (density 40 kg / m³) and thickness of 25 mm.
  Both panels of the base unit and panels of the plenum are provided with pre-cuts which allow to make them compatible with the integration of accessories.
  The fastening of the panels through profile block panel, ensures a perfect seal between panel and frame, and an extreme ease of assembly/ disassembly of the panels.
  The 3 ways corner joint is made of nylon reinforced with glass fibers.
  The condensate drain pan, in galvanized steel, is provided with threaded drain connection on both sides and it is suitable for both horizontal and vertical installation of the unit.

FANS:
- Fans are centrifugal type, double suction and forward blades with high performances.

MOTORS:
- The installed electrical motors are asynchronous three-phase, with closed frame and outside ventilation, comply with the regulations IEC, CEI, UNEL (protection class IP55), single speed (4 poles).

TRANSMISSIONS:
- Pulleys are with variable diameter to better set of the fan to the installation.
  Belts can be SPA or SPB type.
  They are supplied with conical clamping , "Taperlock" type and are statically and dynamically balanced.

WATER HEAT EXCHANGERS:
- The water heat exchangers are made of copper pipes and aluminum fins, blocked by mechanical expansion of the tubes; the main coil can be 4 or 6 rows (hot or cold) and 2, 3 or 4 rows the secondary one (only hot).
  The filtration is carried out by 50 mm thick synthetic filters with G4 efficiency class (according to EN 779) placed on suction side.

FILTERS
These filters are easily removable to facilitate their maintenance and cleaning; they are placed on guides of the main coils section.
The removal of filters can be done pulling them sideways through the door on the panel, connections side.
With the accessory FTMxT, the filtration is made through compact filters with a F7 filtration degree.

Accessories

- **PLxT** supply and suction plenum: compatible with GAxT, GMxT and TPPLxT.
- **FT7MxT** compact filters F7 on fans supply: compatible with GMxT, SAxT and TPPxT.
- **B2RxT - B3RxT - B4RxT** batteria a acqua calda a 2 - 3 - 4 ranghi per impianti a 4 tubi.
- **SAxT** suction damper: to be installed on the base unit or on plenums.
- **GMxT** supply grille with adjustable fins: to be installed on the base unit or on plenums.
- **GAxT** suction grille with fixed fins, 45° bended: to be installed on the base unit or on plenums.
- **TPVSxT** protection roof for vertical installation with up supply: to be installed on the base unit.
- **TPVFxT** protection roof for vertical installation: to be installed on PLxT, FT7MxT and vertical base unit with front supply.
- **TPLxT** protection roof for horizontal version with front supply: to be installed on the base unit.
- **TPPLxT** plenums protection roof for horizontal installation with front supply: to be installed on PLxT e FT7MxT from size 3 to 8.
- **TPFTLxT** bag filter protection roof for line installation with front supply.
- **P50MBT** corners support feets for horizontal and vertical versions.
- **P50ACT** side support feets for horizontal version.

	Montage	TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
GAxT	V - O	GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T
GMxT	V - O	GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T
SAxT	V - O	SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T
B2RxT	V - O	B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T
B3RxT	V - O	B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T
B4RxT	V - O	B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T
PLxT	V - O	PL1T	PL2T	PL3T	PL4T	PL5T	PL6T	PL7T	PL8T
FT7MxT	V - O	FT7M1T	FT7M2T	FT7M3T	FT7M4T	FT7M5T	FT7M6T	FT7M7T	FT7M8T
TPVSxT	V	TPVS1T	TPVS2T	TPVS3T	TPVS4T	TPVS5T	TPVS6T	TPVS7T	TPVS8T
TPVFxT	V	TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T
TPLxT	O	TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T
TPPLxT	O	TPPL1T	TPPL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
TPFTLxT	O	TPFTL1T	TPFTL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
P50MBT	V - O	P50MBT							
P50ACT	O	P50ACT							

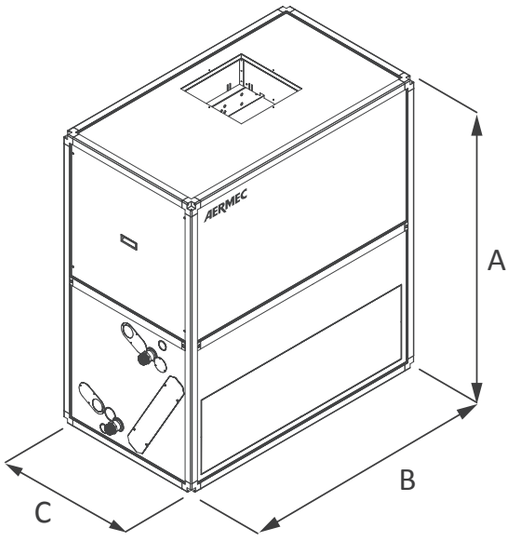
V - O = This accessory can be mounted both on the vertical version and horizontal version;
V = This accessory can be mounted only on the vertical version;
O = This accessory can be mounted only on the horizontal version;

Technical data

				TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Max. airflow	1		m^3/h	3000	4100	5650	7350	9300	11700	15500	20000
Max. airflow	2		m^3/h	3500	4700	6400	8000	10000	13400	17800	20000
Max. airflow	3		m^3/h	3500	4700	6400	8400	10900	13400	17800	23000
Fans available pressure											
Maximum fans	4	Base unit	Pa	215	235	236	226	156	193	207	131
	4	Enhanced unit	Pa	390	407	458	454	340	438	396	381
Cooling power with coils 4 rows	5	Total	kW	15,6	21,3	29,1	38,1	44,8	56,7	74,7	96,4
		Sensible	kW	10,7	14,7	20,1	26,2	33,3	41,7	55,1	70,9
Cooling power with coils 6 rows	5	Total	kW	20	27,4	37,7	49,2	58,3	74,5	98,9	127,8
		Sensible	kW	13,4	18,3	25,2	32,8	41,1	51,8	68,8	88,5
Cooling power with coils 4 rows	6	Total	kW	18,9	25,8	35,3	46,3	56,1	70,7	93,3	120,2
		Sensible	kW	12	16,4	22,4	29,3	37,5	46,9	62,1	79,8
Cooling power with coils 6 rows	6	Total	kW	23,9	32,9	45,3	59,2	71,6	90,6	120,3	155,1
		Sensible	kW	15	20,5	28,3	36,9	46,4	58,3	77,4	99,6
Heating power with coils 2 rows	7		kW	25,2	34	46,8	61,5	84,4	103,8	138	178,5
Heating power with coils 3 rows	7		kW	33,5	45,6	62,7	82	110,8	137,3	182,5	234,4
Heating power with coils 4 rows	7		kW	40	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating power with coils 6 rows	7		kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Heating power with coils 2 rows	8		kW	14,7	19,8	27,3	36	49	60,3	80,1	103,8
Heating power with coils 3 rows	8		kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating power with coils 4 rows	8		kW	23,4	31,9	43,7	57	76,3	94,8	125,8	161,4
Heating power with coils 6 rows	8		kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
COILS											
Manifolds diameter 2 rows				1"	1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 3 rows				1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 4 rows				1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"
Manifolds diameter 6 rows				1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"
Condensate discarge diameter				1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F
FAN				280	280	315	315	400	400	500	500
MOTOR											
Power supply			V/n°/Hz	400V/3/50Hz							
Power/Poles (base unit)			kW/n°	0,75 / 4	1,1 / 4	1,5 / 4	2,2 / 4	2,2 / 4	4 / 4	4 / 4	5,5 / 4
Power/Poles (enhanced unit)			kW/n°	1,1 / 4	1,5 / 4	2,2 / 4	3/4	3/4	5,5 / 4	5,5 / 4	7,5 / 4
FILTERS											
Plane filters efficiency	9			G4	G4	G4	G4	G4	G4	G4	G4
Compact filters efficiency (accessory)	9			F7	F7	F7	F7	F7	F7	F7	F7
Mouth sound pressure	10			52	54	55	57	56	58	59	64

note (1): with cooling coil ;
note (2): with heating coil, base unit;
note (3): with heating coil, enhanced unit;
nota (4): alla portata aria massima 1 with cooling coil 4 rows and filters G4 fouling medium life
note (5): Air temperature enters 27° C d.b. 19° C w.b.; water temperature (In-Out) 7° C - 12°C.;
nota (6): Air temperature enters 27° C d.b 19° C w.b.; water temperature (In-Out) 5° C - 10°C.;
nota (7): Air temperature enters 10° C; water temperature (In-Out) 70° C - 60°C.;
nota (8): Air temperature enters 10° C; water temperature (In-Out) 45° C - 40°C.;
nota (9): comply with the regulation EN 779;
nota (10): d = 10 m, Q =2, base version, at min. pressure, nominal air flow with cooling coil.

Dimensions (mm)



TN models			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Height	A	mm	1334	1334	1497	1497	1822	1822	2309	2309
Width	B	mm	928	1172	1334	1659	1659	1984	1984	2472
Lenght	C	mm	684	684	765	765	828	828	1172	1172
Weight (base version coil 6R)		kg	190	220	275	320	415	475	630	807
Weight (enhanced version coil 6R)		kg	200	223	283	321	417	502	657	813

Cod.: STNUY.02 / 1502

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NCD Air handling units

Aermec
is a company of the Giordano Riello International Group, which participates in the program Eurovent.
Products are listed on the site www.eurovent-certification.com



Features

- 24 sizes of central air handling units with double panelling with panel thickness of 50 mm
- Support structure realised in aluminium alloy sections and a large choice of panels.
- Wide range of sections and components to satisfy all plant engineering requirements
- Double intake centrifugal fans with forward or reverse blades.
- PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

Main Features
Structure:
- In aluminium sections with rounded edges both internally and externally allowing greater cleanliness
- New panelling and gaskets, able to guarantee reduced seepage in compliance with the EN1886 Standard
- Reduction of noise emission thanks to the use of material with high sound-absorption power.
- Small dimensions and contained height.

Internal components:
- New high-efficiency heat exchangers with small pressure drops
- Mixing chamber with three dampers
  The configurations for the mixing chambers with three dampers are the following:
- two upper dampers and an internal one for recirculation;
- two front dampers and a horizontal one for recirculation (for overlapping control units);
- two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake)

Large availability of filters:
Filters with large surfaces to reduce the pressure drops and increase the duration
- Cell pre-filters
- Roll filters
- Bag filters
- Absolute filters
- Activated carbon filters
- Germicidal lamp

- New efficient drop eliminator in PVC
- New heat recoverers with high heat exchange

Electric components
- Electronic regulation available able to optimise the performance and simplify installation of the control unit itself
- New high performance selection software.

Accessories

Wide range of accessories among which:
- Technical rooms

Accessories for air intake/exhaust sections:
- flange;
- blank panel (to be perforated with care by the customer);
- anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
- aluminium grille (for internal dampers only);
- manual command on the dampers;
- proportional servo-control;
- proportional servo-control with spring return;
- pedestrian grill on the floor dampers.

Accessories for the fan-motor sections:
- Damper on the flow vent;
- overpressure damper;
- micro switch on the inspection hatch;

Accessories common to several sections:
- Spot light with window with 24V bulb (the installer must envision the 24V power supply);
- manometer with dial;
- pressure switch;
- instruments-probes holder GJ 1/4" double sleeve;
- floor reinforced with non-slip sheet steel.

Technical data

	Air flow rate m^3/h	Coil section m2
NCD 1	1.134	0,13
NCD 2	1.958	0,22
NCD 3	2.390	0,27
NCD 4	3.132	0,35
NCD 5	3.823	0,42
NCD 6	4.307	0,48
NCD 7	5.257	0,58
NCD 8	6.207	0,69
NCD 9	8.019	0,89
NCD 10	9.477	1,05
NCD 11	11.548	1,28
NCD 12	14.213	1,58
NCD 13	16.978	1,89
NCD 14	19.742	2,19
NCD 15	25.761	2,86
NCD 16	30.772	3,42
NCD 17	37.139	4,13
NCD 18	47.187	4,8
NCD 19	49.235	5,47
NCD 20	55.283	6,14
NCD 21	61.331	6,81
NCD 22	67.379	7,49
NCD 23	73.427	8,16
NCD 24	79.475	8,83

The performance refers to an air speed through the coils equal to 2.5 m/s.

Technical Data

SEZ A		SEZ B								
		734	894	1054	1214	1374	1534	1694	1854	2014
height with Stand	height without Stand	620	780	940	1100	1260	1420	1580	1740	1900
645	525	**NCD1** 1370-1640 m^3/h	**NCD1A** 1880-2260 m^3/h	**NCD2** 2350-2820 m^3/h	**NCD3** 2870-3450 m^3/h	**NCD3C** 3390-4070 m^3/h	**NCD4B** 3890-4670 m^3/h	**NCD5B** 4380-5250 m^3/h	**NCD6B** 4860-5840 m^3/h	**NCD6D** 5330-6400 m^3/h
805	685	**NCD1B** 1970-2360 m^3/h	**NCD3A** 2720-3260 m^3/h	**NCD4** 3400-4080 m^3/h	**NCD5** 4150-4980 m^3/h	**NCD6A** 4900-5870 m^3/h	**NCD7A** 5620-6740 m^3/h	**NCD8A** 6320-7590 m^3/h	**NCD8C** 7020-8430 m^3/h	**NCD8F** 7700-9240 m^3/h
965	845	**NCD2A** 2580-3090 m^3/h	**NCD4A** 3550-4260 m^3/h	**NCD6** 4440-5330 m^3/h	**NCD7** 5420-6500 m^3/h	**NCD8** 6400-7680 m^3/h	**NCD8D** 7350-8820 m^3/h	**NCD9** 8270-9920 m^3/h	**NCD9C** 9180-11020 m^3/h	**NCD9F** 10070-12090 m^3/h
1125	1005	**NCD3B** 3180-3820 m^3/h	**NCD5A** 4390-5270 m^3/h	**NCD6E** 5490-6580 m^3/h	**NCD8B** 6700-8030 m^3/h	**NCD8H** 7910-9490 m^3/h	**NCD9A** 9080-10890 m^3/h	**NCD10** 10210-12250 m^3/h	**NCD10C** 11340-13610 m^3/h	**NCD11** 12440-14930 m^3/h
1285	1165		**NCD6C** 5220-6270 m^3/h	**NCD7B** 6530-7830 m^3/h	**NCD8G** 7970-9560 m^3/h	**NCD9E** 9410-11290 m^3/h	**NCD10A** 10800-12960 m^3/h	**NCD10F** 12150-14580 m^3/h	**NCD11A** 13500-16200 m^3/h	**NCD12** 14810-17770 m^3/h
1445	1325			**NCD8E** 7570-9090 m^3/h	**NCD9B** 9240-11090 m^3/h	**NCD10B** 10910-13100 m^3/h	**NCD10G** 12530-15040 m^3/h	**NCD11D** 14100-16920 m^3/h	**NCD12A** 15660-18800 m^3/h	**NCD12C** 17180-20610 m^3/h
1765	1645				**NCD10D** 11790-14150 m^3/h	**NCD11B** 13920-16710 m^3/h	**NCD12B** 15990-19190 m^3/h	**NCD13A** 17990-21580 m^3/h	**NCD13D** 19980-23980 m^3/h	**NCD14B** 21920-26300 m^3/h
2085	1965						**NCD13B** 19440-23330 m^3/h	**NCD14A** 21870-26250 m^3/h	**NCD14E** 24300-29160 m^3/h	**NCD15** 26650-31980 m^3/h
2405	2285								**NCD15D** 28620-34350 m^3/h	**NCD15G** 31390-37670 m^3/h
2565	2445									**NCD16B** 33760-40510 m^3/h

SEZ A		SEZ B							
		2334	2654	2974	3294	3614	3934	4254	4574
height with Stand	height without Stand	2220	2540	2860	3180	3500	3820	4140	4460
645	525								
805	685	**NCD9D** 9200-11040 m^3/h							
965	845	**NCD10E** 12030-14440 m^3/h	**NCD11C** 13990-16790 m^3/h						
1125	1005	**NCD11E** 14860-17830 m^3/h	**NCD12D** 17280-20730 m^3/h	**NCD13C** 19700-23640 m^3/h					
1285	1165	**NCD13** 17690-21230 m^3/h	**NCD14** 20570-24680 m^3/h	**NCD14C** 23450-28140 m^3/h	**NCD15B** 26330-31590 m^3/h				
1445	1325	**NCD13E** 20520-24620 m^3/h	**NCD14D** 23860-28630 m^3/h	**NCD15C** 27200-32640 m^3/h	**NCD15E** 30540-36650 m^3/h	**NCD16A** 33880-40660 m^3/h			
1765	1645	**NCD15A** 26180-31410 m^3/h	**NCD15F** 30440-36530 m^3/h	**NCD16C** 34700-41640 m^3/h	**NCD17A** 38970-46760 m^3/h	**NCD17D** 43230-51870 m^3/h	**NCD18B** 47490-56990 m^3/h		
2085	1965	**NCD16** 31840-38200 m^3/h	**NCD16D** 37020-44430 m^3/h	**NCD17C** 42210-50650 m^3/h	**NCD18C** 47390-56870 m^3/h	**NCD19A** 52570-63090 m^3/h	**NCD20A** 57760-69310 m^3/h	**NCD21A** 62940-75530 m^3/h	**NCD21C** 68130-81750 m^3/h
2405	2285	**NCD17** 37500-45000 m^3/h	**NCD18** 43600-52320 m^3/h	**NCD19** 49710-59650 m^3/h	**NCD20** 55810-66980 m^3/h	**NCD21** 61920-74300 m^3/h	**NCD22** 68030-81630 m^3/h	**NCD23** 74130-88960 m^3/h	**NCD24** 80240-96280 m^3/h
2565	2445	**NCD17B** 40330-48390 m^3/h	**NCD18A** 46890-56270 m^3/h	**NCD19B** 53460-64150 m^3/h	**NCD20B** 60030-72030 m^3/h	**NCD21B** 66590-79910 m^3/h	**NCD22A** 73160-87790 m^3/h	**NCD23A** 79730-95670 m^3/h	**NCD24A** 86290-103550 m^3/h

The performance refers to an air speed through the coils equal to 2.5 m/s.

Dimensional (mm)



	Section A	Section B
NCD 1	645	735
NCD 2	645	1055
NCD 3	645	1215
NCD 4	805	1055
NCD 5	805	1215
NCD 6	965	1055
NCD 7	965	1215
NCD 8	965	1375
NCD 9	965	1695
NCD 10	1.130	1695
NCD 11	1.130	2015
NCD 12	1.285	2015
NCD 13	1.285	2335
NCD 14	1.285	2655
NCD 15	2.085	2015
NCD 16	2.085	2335
NCD 17	2.405	2335
NCD 18	2.405	2655
NCD 19	2.405	2975
NCD 20	2.405	3295
NCD 21	2.405	3615
NCD 22	2.405	3935
NCD 23	2.405	4255
NCD 24	2405	4575

Cod.: SNCDUY.02 / 1502

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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SPL 025/130

Swimming Pool Lines
Air handling unit
high efficiency for health centres.
Air flow from 4,000 to 13,000 m^3/h.

Swimming Pool Lines

HFC Refrigerant R410A

TECHNOLOGY HIGH EFFICIENCY



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.
The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.
The structure and all the internal components are built to ensure the maxi**mum resistance to corrosion**.

Characteristics

VERSIONS
- 7 sizes available.

STRUCTURE:
- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m^3, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

THERMAL RECOVERY SECTION:
- High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

REFRIGERANT CIRCUIT:
- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

FAN SECTIONS:
- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

FILTRATION SYSTEMS:
- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

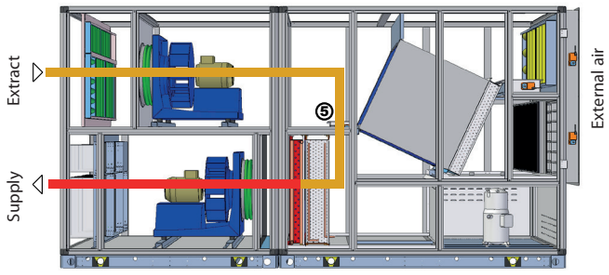
HOT WATER HEATING COIL:
- With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

ELECTRICAL PANEL:
- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

Operating schematics

The principal operation modes of the unit are shown in the example schematics below.
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

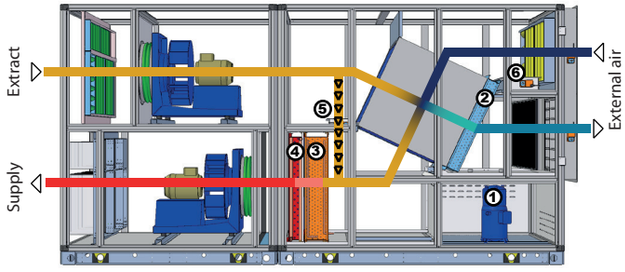
"Start up" cycle



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area.

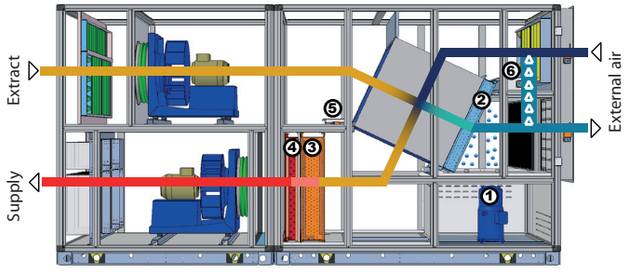
"Dehumidification" cycle

Dehumidification with external air



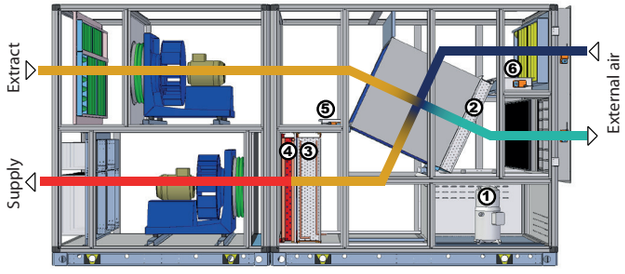
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

Dehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



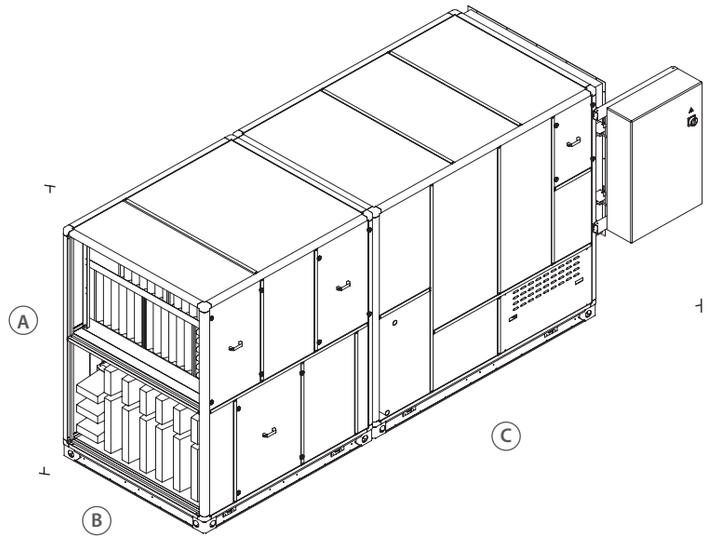
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Technical data

SPL		025	040	060	100	130
Nominal airflow (supply/extract)	m^3/h	2.500	4.000	6.300	10.000	13.000
Available pressure (supply/extract)	Pa	400	400	400	400	400
Heat recovery capacity recovered[1]	kW	7,9	12,6	20,4	32,0	41,5
Max heat recovery efficiency[1]	%	80,8	79,3	80,1	79,5	79,4
Refrigerant circuit recovered capacity[1]	kW	7,5	10,5	21,3	31,7	45,7
Total recovered capacity[1]	kW	15,4	23,1	41,6	63,7	87,3
Compressor power input[1]	kW	1,3	1,6	3,7	6,0	8,4
COP[1]	-	11,8	14,4	11,2	10,6	10,4
COP[2]	-	3,9	4,0	4,1	4,0	4,1
Total dehumidification capacity[1]	kg/h	15,5	25,2	40,1	63,7	82,7
Supply fan power input	kW	1,6	2,6	3,7	5,9	7,6
Extract fan power input	kW	1,2	1,9	2,7	4,5	5,7
Type / number of compressors	n°			Scroll / 1		
Hot water heating coil (standard)						
Capacity (without recovery active)[1]	kW	26,1	35,4	61,6	95,3	124,5
Water flow rate [3]	l/h	2.250	3.050	5.300	8.200	10.700
Water pressure drop [3]	kPa	23,5	43,7	33,1	48,8	46,3
Plate heat exchanger R410A/non aggressive water (standard)						
Water flow rate nominal[4]	l/h	950	1.120	2.500	3.600	5.400
Pressure drop[4]	kPa	19	19	31	32	33
Plate heat exchanger accessible non aggressive water/pool water (standard)						
Water flow rate nominal pool[5]	l/h	1.200	1.400	3.100	4.500	6.800
Pressure drop pool side[5]	kPa	32,4	34	31,4	33	34,5
Pressure drop intermediate circuit side[5]	kPa	21,2	22,3	20,6	21,6	22,5
Electrical data						
Unit power supply				400 V - 3 ph - 50 Hz		
Maximum total current input supply fan	A	3,5	6,2	11	14,6	15
Maximum total current input extract fan	A	2,6	4,9	6,4	11,3	11,3
Unit maximum current input	A	11,6	17,1	32,4	49,3	61,3
Unit starting current	A	32,1	46,1	91,4	181,9	184,3

1 External air 0°C,80% RH; internal air 29°C,60% RH.
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.
3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.
4 Water temperature inlet/outlet non aggressive 27/37°C.
5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C
Preliminary technical data, subject to modification.

Dimensional data (mm)



SPL			025	040	060	100	130
Height (including base H=120mm)	A	mm	1.765	1.765	2.245	2.405	2.405
Width	B	mm	895	895	1.055	1.375	1.695
Length	C	mm	3.230	3.390	4.190	4.190	4.670
Weight		kg	900	1.000	1.350	2.060	2.600

Cod.: SSPL025_130UY.01 / 1406

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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SPL 160/250

Swimming Pool Lines
Air handling unit
high efficiency for health centres.
Air flow from 16,000 to 25,000 m^3/h.

Swimming Pool Lines

HFC Refrigerant R410A

TECHNOLOGY HIGH EFFICIENCY



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in medium-large spaces such as health centres, spa areas, fitness centres, swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.
The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.
The structure and all the internal components are built to ensure the maxi**mum resistance to corrosion**.

Characteristics

VERSIONS
- 3 sizes available.

STRUCTURE:
- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m^3, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

THERMAL RECOVERY SECTION:
- High efficiency static cross flow double plate heat exchanger in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

REFRIGERANT CIRCUIT:
- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

FAN SECTIONS:
- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

FILTRATION SYSTEMS:
- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

HOT WATER HEATING COIL:
- Water coil with copper tubes and pre-painted aluminium fins and painted frame to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

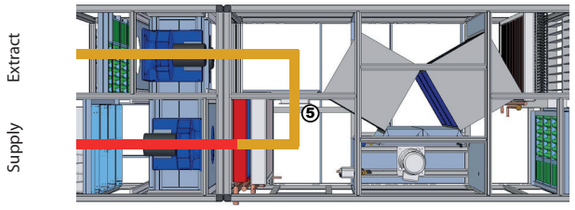
ELECTRICAL PANEL:
- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

Operating schematics

The principal operation modes of the unit are shown in the example schematics below.
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

"Start up" cycle

Top view

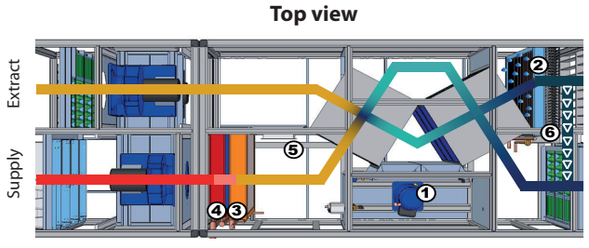


The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area

"Dehumidification" cycle

Dehumidification with external air

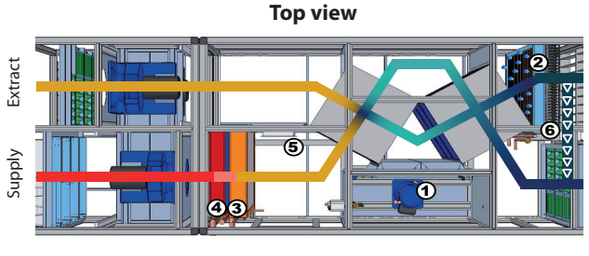
Top view



The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

Dehumidification with external air and primary cycle

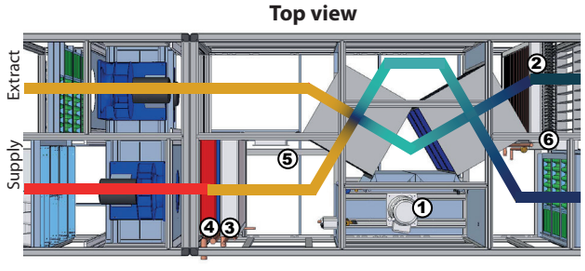
Top view



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)

Top view



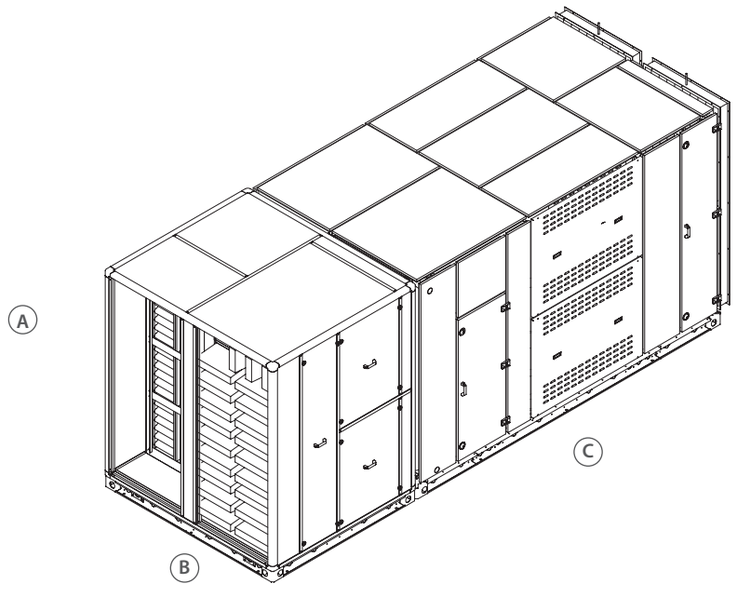
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Technical data

SPL		160	200	250
Nominal airflow (supply/extract)	m^3/h	16.000	20.000	25.000
Available pressure (supply/extract)	Pa	400	400	400
Heat recovery capacity recovered[1]	kW	59,6	68,6	89,2
Max heat recovery efficiency[1]	%	93	86	89
Refrigerant circuit recovered capacity[1]	kW	46,3	53,6	69,4
Total recovered capacity[1]	kW	105,9	122,2	158,6
Compressor power input[1]	kW	8,5	9,2	12,8
COP[1]	-	12,5	13,3	12,4
COP[2]	-	4,0	3,9	3,9
Total dehumidification capacity[1]	kg/h	102,2	127,6	159,5
Supply fans power input	kW	10,9	13,7	17,7
Extract fans power input	kW	8,3	9,8	12,4
Type / number of compressors	n°		Scroll / 1	
Hot water heating coil (standard)				
Capacity (without recovery active)[1]	kW	131,9	182,7	205,9
Water flow rate [3]	l/h	11.300	15.700	17.700
Water pressure drop [3]	kPa	43,7	37,9	42,2
Plate heat exchanger R410A/non aggressive water (standard)				
Water flow rate nominal[4]	l/h	5.760	6.450	8.260
Pressure drop[4]	kPa	33	33	33
Plate heat exchanger accessible non aggressive water/pool water (standard)				
Water flow rate nominal pool[5]	l/h	7.200	8.100	10.400
Pressure drop pool side[5]	kPa	34,2	34,7	34,2
Pressure drop intermediate circuit side[5]	kPa	22,3	22,7	22,2
Electrical data				
Unit power supply			400 V - 3 ph - 50 Hz	
Maximum total current input supply fans	A	29,2	41	42
Maximum total current input extract fans	A	22	22,6	30
Unit maximum current input	A	86,2	99,6	123
Unit starting current	A	209	223	287

1 External air 0°C,80% RH; internal air 29°C,60% RH.
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.
3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.
4 Water temperature inlet/outlet non aggressive 27/37°C.
5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C
Preliminary technical data, subject to modification.

Dimensional data (mm)



SPL			160	200	250
Height	A	mm	2.085	2.405	2.405
Width	B	mm	2.015	2.175	2.335
Length	C	mm	5.790	5.790	6.430
Weight		kg	2.780	3.250	3.580

Cod.: SPL160_250UY.01 / 1406

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

ENERGY

Air handling unit for outside air with high energy efficiency. Airflow from 4,000 to 25,000 m³/h.

HFC Refrigerant R410A

TECHNOLOGY HIGH EFFICIENCY



The units of the Energy series represent the maximum expression of technical innovation for the treatment of outside air. The Energy series has been specifically designed to reduce to the minimum the operating energy consumption, which represents around 80% of the entire life cycle cost of an air treatment unit. The double heat recovery system (static and active) and the innovative cooling and adiabatic humidification system, allow **the supply of air at the desired conditions with the minimum energy expenditure. The damper for total bypass allows free-cooling in the intermediate season, exploiting to the maximum the free external thermal contribution.** The Energy series is manufactured in full compliance with the standard EN1886 with regards to mechanical resistance, air leakage, thermal and acoustical insulation of the casing.

Characteristics

VERSIONS
- 5 sizes available.

PLUG AND PLAY:
- The units of the Energy series are delivered ready for use. In particular, the machine is equipped with a complete control system and the refrigerant circuit is completely assembled and tested, minimising the time and cost of installation and start up.

STRUCTURAL ASSEMBLY:
- In aluminium profile with rounded edges and reinforced nylon corner pieces. The casing is manufactured from sandwich panels of 50 mm thickness, fixed to the frame with an exclusive panel fixing without the use of screws. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.

MODULATING BYPASS DAMPER:
- In aluminium with opposed aerofoil blades, installed in the extract air flow to permit free-cooling. Additional recirculating damper (only in the Eco version). The accurate manufacturing minimises air leakage.

PLUG FANS:
- Very high efficiency directly coupled to the motor. Inverter for continuous control of supply and extract air flow.

FILTRATION SYSTEMS:
- Various types of filters are available (panel and bag), to satisfy any filtration requirement and ensure compliance with the current air quality standards. Dirty filter pressure switches supplied as standard.

STATIC HEAT RECOVERY:
- Integrated reversible heat pump. Tandem scroll compressor (single for sizes 040 and 060) supplied with rubber anti-vibration feet; continuous capacity control through an inverter to ensure the maximum energy savings even at part load. Double expansion valve electronically controlled. 4 way refrigerant cycle reversing valve. Coils manufactured with copper tubes and prepainted aluminium fins. Environmentally friendly refrigerant R410A ensures improved energy efficiency for the refrigerant cycle.

RE-HEAT COIL:
- Water in the Standard version (optional) and Eco version (standard), hot gas in the Dry version (standard).

COOLING SYSTEM:
- Adiabatic with water spray in the extract air, with self cleaning spray nozzles and high pressure pump module, having the function of maximising the heat exchange in the double heat recovery system.

WATER HUMIDIFICATION SYSTEM:
- Spray in the supply air. Lower surfaces of the unit equipped with drain panels with central condensate drain to ensure the continuous drainage of water and avoid stagnation.

ELECTRICAL PANEL:
- Complete with power and controls unit mounted. Remote panel for the control of all the main functions and display of alarms.

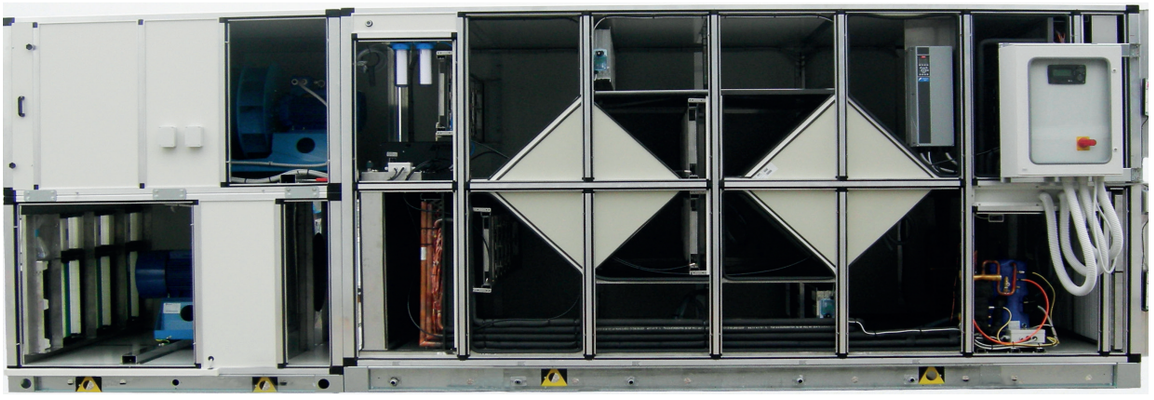
MICROPROCESSOR CONTROLLER:
- Capable of controlling the various operating modes (control of outside air, control of total air), ensuring the maximum energy saving in each operating condition. RS485 interface supplied as standard (MODBUS protocol) for connection to a supervisory systems and remote control. Manual season change over (summer/winter).

ON DEMAND:
- Hot water re-heat coil (only Standard version, as standard on Eco version), enthalpy free-cooling (available only with ambient temperature control), bag filters.

Refrigerant circuit with inverter compressor

Modulating dampers for free-cooling

Humidification system pump



Fan inverter

Re-heater coil (optional)

Electrical panel with power and controls

Double static heat recovery

VERSION	Adiabatic cooling / humidification	Recirculating damper	Hot gas re-heat	Water re-heat
ENERGY STD	●	-	-	Optional
ENERGY DRY	●	-	●	-
ENERGY ECO	●	●	-	●

Technical data

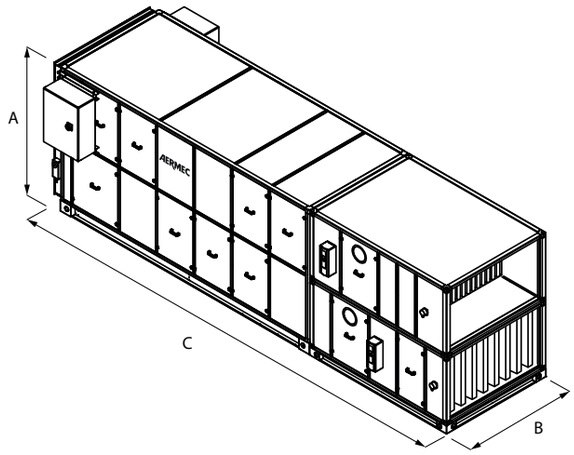
ENERGY Dry			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m³/h	4000	6000	10000	16000	25000
	(min)	m³/h	3600	5100	8500	13000	20000
	(max)	m³/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	40	57	99	155	203
Total input power		kW	10,2	14,6	25,7	39,1	56
EER		W/W	3,92	3,90	3,85	3,96	3,63
Heating Capacity		kW	67	88	146	229	313
Total input power		kW	13,5	14,3	22,1	34,7	50,5
COP		W/W	4,96	6,15	6,61	6,60	6,20
Thermodynamic recovery							
Cooling Capacity - max (f.a cooling)		kW	24,4	34,4	63,5	93	114,9
Total input power - max (f.a cooling)		kW	7,1	9,1	17	23,7	30,1
Heating capacity - max. (f.a Heating)		kW	28,5	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	10,4	8,7	13,2	18,9	23,8
Static recovery + adiabatic							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	87,9
Sensitive Summer Static Efficiency		%	72	71	69	74	66
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	213,4
Static Efficiency Sensitive Winter		%	84	82	80	80	76

ENERGY Eco/Std			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m³/h	4000	6000	10000	16000	25000
	(min)	m³/h	3600	5100	8500	13000	20000
	(max)	m³/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	37	54	95	148	194
Total input power		kW	12,2	16,8	28,8	43,9	62,8
EER		W/W	3,03	3,21	3,30	3,37	3,09
Heating Capacity		kW	60	88	146	229	313
Total input power		kW	8,9	14,3	22,1	34,7	50,5
COP		W/W	6,74	6,15	6,61	6,60	6,20
Thermodynamic recovery							
Cooling Capacity - max (f.a cooling)		kW	22,1	31,3	59,2	87,0	93,5
Total input power - max (f.a cooling)		kW	9,1	11,3	20,1	28,5	36,9
Heating capacity - max. (f.a Heating)		kW	21,0	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	5,8	8,7	13,2	18,9	23,8
Static recovery + adiabatic							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	73,8
Sensitive Summer Static Efficiency		%	72	71	69	74	69
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	179,6
Static Efficiency Sensitive Winter		%	84	82	80	80	79

Cooling Mode
External Air Temperature: 35 °C; RH 40%; Ambient Temperature: 26 °C; Humidity Ambient 50 %

Heating Mode
External Air Temperature: -10 °C; Humidity External Air 90%; Ambient Temperature: 20 °C; Humidity Ambient 50 %

Dimensional data (mm)



Mod. ENERGY			Vers.	040	060	100	160	250
Height	(mm)	A	Alls	1810	1810	2130	2450	2450
Width	(mm)	B	Alls	1055	1375	1695	2015	2335
Lenght	(mm)	C	Alls	4830	4830	5630	6270	6270
Waeight Standard version	(kg)			1400	1800	2300	2900	3500

Heigh
Width
Depth

Cod.: SENERGYUY.01 / 1610

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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RTX
01/08

Rooftop
Air/air for external installation
with plug fans and scroll compressor
Cooling capacity 13 - 51kW
Heating capacity 13 - 52kW

HFC
Refrigerant
R410A



- **FAN TREATMENT SECTION PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE–COOLING/ENTHALPIC FREE–COOLING OPTION**
- **FOR MEDIUM DENSITY APPLICATIONS**

Features

- Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas.
  Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

Versions
RTX_F cold only
RTX_H heat pump

Configurations
MB2 single ventilating section for return air and external air
MB4 double ventilating section for return air, external air and expelled air. Partial free-cooling function (up to 50% of the external air) and standard thermodynamic recovery function.
MB1 single ventilating section for recirculation only

Each of the different configurations can be further customised thanks to a wide selection of accessories.

- 1 Cooling circuit
- Scroll compressor with high performance and low electric absorption
- Finned pack direct expansion internal and external exchangers.
- Plug type (EC) flow and recovery fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise.
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- G4 air filter installed upstream of the components to ensure low pressure drops.
- Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

Accessories

- **RS:** RS485 BMS serial card
- **LW:** LonWorks interface card
- **BIP:** Ethernet-pCOweb interface card (BACNET IP)
- **BAC:** BACnet MS/TP pCOnet interface card
- **FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions
- **PSTEP:** Constant flow rate adjustment, flow rate steps based on cooling circuit modulation.
- **FT7:** F7 efficiency pocket filters positioned on the supply air flow
- **FT9:** F9 efficiency pocket filters positioned on the supply air flow
- **FTE**: Electronic filters positioned on the supply air flow.
- **PSF4:** Differential pressure switch signalling dirty recovery and renewal filters (if any)
- **BW:** Two-row hot water heating coil.
- **BWV2V:** Two-row hot water heating coil, with 2-way modulating valve
- **BWV3V:** Two-row hot water heating coil, with 3-way modulating valve
- **BE:** 2-stage electric heating coil
- **BPGC**: Hot gas post-heating coil
- **VELC**: Electronic thermostatic valve
- **DCPR:** AC fans with pressure switch device to regulate revolutions based on the condensation and evaporation pressure.
- **AXEC**: Axial fans featuring EC motors with the function of regulating revolutions based on the condensation and evaporation pressure
- **MAN**: High and low pressure gauges
- **CUR**: Humidification control (recovery humidity probe, flow humidity limit probe, ON/OFF contact and modulating analogue output)
- **DP:** Dehumidification (recovery humidity probe) and post-heating (if any) control
- **SCO2**: CO_2 **probe (not available on MB1 model)**
- **SVOC:** VOC Probe **(not available on MB1 model)**
- **STA:** Room temperature probe
- **SUA**: Relative humidity probe
- **RF**: Smoke detector
- **RFC**: smoke detector and damper management
- **PRT1:** Wall/recessed (up to 50 m) remote control panel
- **PRT2:** Wall/recessed (up to 200 m) remote control panel
- **SCM:** modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present)
- **SCMRM**: Modulating servo-controls with spring return
- **CA**: Waterproof covers on external air intake
- **GP**: External coil protection grid
- **VT**: anti-vibration mounts

NOTE: for more details on accessories and equipment, please refer to the technical manual

Technological functions and advantages

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

- **EXTREMELY HIGH-EFFICIENCY VENTILATION** As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.

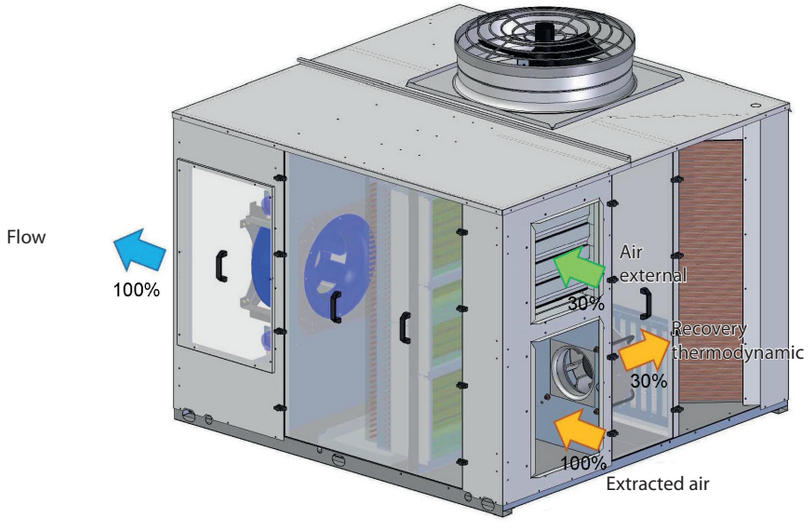
  Both in flow and in recovery (if any), EC brushless motor plug fans were used, which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow adjustment and resulting in compactness, versatility and easy maintenance.
  Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.
  Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction.
  As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

- **AIR QUALITY IN THE ROOM**Naturally, we also paid special attention to the quality of the air in the room, a task entrusted to the standard G4 efficiency filters.
  F7 and F9 or electronic H10 filters are also optionally available on the fresh air flow.

- **ACTIVE THERMODYNAMIC RECOVERY** In the MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.

Obviously, all of these technological advantages are controlled by cutting edge thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB4 configuration with double ventilating section for return air, external air and expelled air. Standard free-cooling and thermodynamic heat recovery function.



Technical data

Mod. RTX (vers. MB1)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	12,1	15,1	19,5	22,0	28,0	31,9	42,3	48,0
Sensitive cooling capacity		kW	8,7	10,8	13,8	15,3	19,4	22,3	29,3	32,7
Sensitive / total cooling power		kW/kW	0,72	0,71	0,71	0,70	0,69	0,70	0,69	0,68
Compressor input power		kW	2,8	3,9	4,8	5,8	6,7	8,8	10,1	12,0
EER	(3)	W/W	4,37	3,91	4,09	3,80	4,20	3,64	4,17	4,00
EER (global)		W/W	3,68	3,33	3,42	3,20	3,46	3,09	3,30	3,14
Heating capacity	(2)	kW	12,4	15,7	20,1	23,2	28,9	33,9	44,2	50,3
Compressor input power		kW	2,6	3,4	4,3	5,0	5,9	7,5	9,2	10,5
COP	(3)	W/W	4,68	4,61	4,71	4,61	4,90	4,54	4,78	4,77
COP (global)		W/W	3,90	3,82	3,86	3,78	3,94	3,74	3,69	3,64

Mod. RTX (vers. MB2)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	13,0	16,2	20,8	23,4	29,6	33,8	45,0	50,7
Sensitive cooling capacity		kW	9,2	11,4	14,7	16,3	20,6	23,3	30,9	34,5
Sensitive / total cooling power		kW	2,8	3,9	4,8	5,9	6,8	8,9	10,3	12,2
Compressor input power		W/W	4,64	4,16	4,31	3,96	4,37	3,81	4,38	4,15
EER	(3)	W/W	3,88	3,50	3,56	3,33	3,60	3,21	3,45	3,26
EER (global)		kW	12,8	16,1	20,6	23,7	29,4	34,4	45,2	51,0
Heating capacity	(2)	kW	2,45	3,15	3,93	4,64	5,41	6,91	8,59	9,76
Compressor input power		W/W	5,21	5,10	5,25	5,11	5,44	4,98	5,26	5,23
COP	(3)	W/W	4,25	4,15	4,18	4,11	4,28	4,03	3,98	3,90
COP (global)		W/W	3,90	3,82	3,86	3,78	3,94	3,74	3,69	3,64

Mod. RTX (vers. MB4 dynamic)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	13,0	16,3	21,0	23,6	29,9	34,1	45,4	51,1
Sensitive cooling capacity		kW	9,3	11,4	14,8	16,3	20,6	23,6	31,0	34,6
Sensitive / total cooling power		kW	2,7	3,8	4,7	5,8	6,6	8,6	10,1	12,0
Compressor input power		W/W	4,75	4,28	4,44	4,10	4,50	3,95	4,50	4,28
EER	(3)	W/W	3,81	3,42	3,45	3,23	3,50	3,08	3,25	3,07
EER (global)		kW	13,1	16,7	21,3	24,6	30,4	35,7	46,5	52,9
Heating capacity	(2)	kW	2,48	3,19	3,99	4,74	5,51	6,97	8,73	9,96
Compressor input power		W/W	5,29	5,23	5,34	5,19	5,52	5,11	5,33	5,31
COP	(3)	W/W	4,15	4,01	3,98	3,91	4,10	3,80	3,70	3,61
COP (global)		W/W	3,90	3,82	3,86	3,78	3,94	3,74	3,69	3,64

Date 14511
Cooling (performance is the same also for the cold only versions)
(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;
(2) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.;
(3)Only compressors

Technical data

GENERAL DATA				01	02	03	04	05	06	07	08
Compressors											
Compressors			type	scroll							
			n°	1	1	1	1	1	1	1	1
Circuits			n°	1	1	1	1	1	1	1	1
Partialisation steps			%	1	1	1	1	1	1	1	1
Refrigerant gas			type	R410A							
Fans											
External fans			type	AC axial							
			n°	1	1	1	1	1	1	1	1
Internal flow fans			type	RAD EC							
			n°	1	1	1	1	1	1	1	1
			Ø mm	355	355	355	400	400	450	450	500
Expulsion fans (MB4)			type	RAD EC							
			n°	1	1	1	1	1	1	1	1
			Ø mm	250	250	280	280	355	355	400	400
Air flow rate	min		m^3/h	1800	1800	2700	2700	4000	4000	6500	6500
	nom		m^3/h	2000	2700	3500	4000	5200	6500	8000	9500
	max		m^3/h	2900	2900	4100	4100	6900	6900	10100	10100
Flow available static pressure	max	(4)	Pa	760	597	473	561	424	570	634	681
Sound power			dB(A)	71	71	71	72	77	74	80	81
Sound Pressure			dB(A)	63	63	63	64	69	66	72	73
Electric power supply			V/ph/Hz	400V / 3Ph+N / 50Hz				400V / 3Ph / 50Hz			

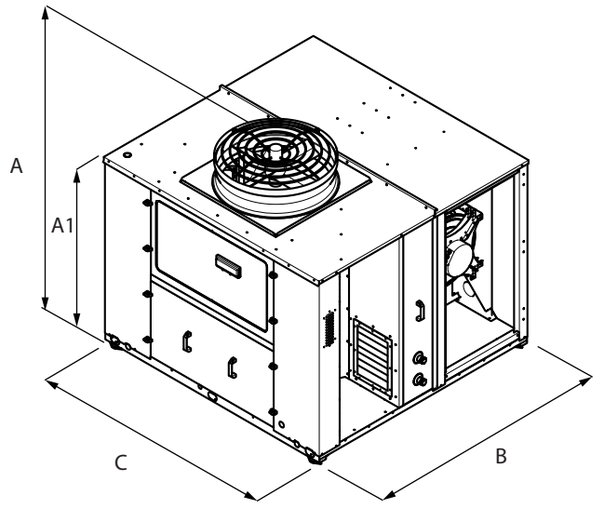
(4) At nominal/maximum flow rate, new clean G4 filter

Sound Pressure

Sound pressure measured in free field (1m, Q=2) away from the outer surface of the ducted unit, Available static pressure 50Pa. (UNI EN ISO 9614-2)

Note: For further information, refer to the technical documentation available at www.aermec.com

Dimensional data



Mod. RTX			Vers.	01	02	03	04	05	06	07	08
Height	(mm)	A	All	1150	1150	1450	1450	1670	1670	1780	1780
Total height	(mm)	A1	All	910	910	1210	1210	1410	1410	1510	1510
Length	(mm)	B	All	1460	1460	1460	1460	1910	1910	1910	1910
Width	(mm)	C	All	1560	1560	1560	1560	1860	1860	2310	2310
Weight	(kg)		MB2	305	305	345	345	535	535	615	615
			MB4	315	315	365	365	560	560	645	645

Code: SRTX01-08UY.01 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

RTX 09/16

Roof-top
Air/Air for external installation
with plug fans and scroll compressors
Cooling capacities 51÷132kW
Heating capacities 50÷134kW

HFC
Refrigerant
R410A



- **HANDLING SECTION WITH PLUG FAN COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE–COOLING/ENTHALPIC FREE–COOLING OPTION**
- **FOR MEDIUM CROWDING APPLICATIONS**

Features

- Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration . RTX units are designed fot medium crowding applications, like shopping malls, shops, offices , production areas being designed for operation with 30% external and expelled air (version MB3).
  The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exaust air allowing higher perfomances and efficiencies.
  Versions

RTX_F cooling only version
RTX_H **heat pump version**

Configurations
MB2 with mixing chamers and two dampers
MB3 with mixing chamber with three dampers return fan and heat recovery from expelled air
MB1 recirculation only
Each of the different configuration can be further customized with a wide choice of accessories.

- 1 cooling circuit
- High efficiency scroll compressors (tandem UNEVEN) and low power consumption
- Internal and external direct expansion finned heat exchangers
- Supply and return fans (if present), of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through the internal components, with the minimum noise.
- Group of axial fans for extremely silent operation placed on the condensing section with standard condensation electronic control.
- G4 air filter on the flow of outside air and on the recovery, are installed upstream of the components, to ensure low pressure drops.
- Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions.
  Interfaces for connections to BMS and optional remote control available.

Accessories and fittings

- **SSV:** Supervision system.
- **RS:** Serial card BMS RS485
- **LW:** Interface card LonWorks
- **BIP:** Interface card Ethernet-pCOweb (BACNET IP)
- **BAC:** Interface card BACnet MS/TP pCOnet
- **FCT:** Temperature Free-cooling
- **FTH:** Enthalpic Free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
- **FT7:** Pocket filters F7 efficiency placed on the flow of supply air
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air.
- **H10**: Electronic filters placed on the flow of supply air.
- **PSF:** Differential pressure switch signaling fouled filters of recovery, renewal and discharge (if present)
- **PSF2: Differential pressure switch** signaling fouled filters, renewal and supply.
- **Gx: heating module** with gas burner
- **BW:** 2-rows-heating coil with hot water
- **BWV2V:** 2 -rows -heating coil with hot water, with 2-way modulating valve
- **BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve
- **BE:** Electric heating coil 2 stages **(not available with hot air generator)**
- **BEM:** Modulating electric heating coil **(not available with hot air generator)**
- **BPGC: After heating coil with hot gas .**
- **DCPR:** AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
- **AXEC**: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation
- **MAN**: High and low pressure gauges
- **U:** Installed steam ramp
- **UP**: Immersed electrode producer standard supplied and installed steam ramp
- **CUR**: Humidification control (humidity probe in recovery, limit humidity probe in supply , contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2**: Probe CO_2
  (not available on MB1 FITTINGS)
- **SVOC:** Probe VOC
  (not available on MB1 FITTINGS)
- **STA:** Room temperature probe
- **SUA**: Room humidity probe
- **RF**: Smoke detector
- **RFC**: Smoke detector and recirculation damper closure management and external air intake
- **PR1**: Remote control panel
- **SCM: Modulating servo-controls** (standard supplied on the MB3 equipment or if present FCT/FCH)
- **SCMRM**: Modulating Servo-control with spring return
- **CA**: Waterproof headphones on external air intake
- **CF**: Flue pipe (only on version with gas burner module)
- **GP**: Protection grille for external coils
- **VT**: antivibration mounts
- **MSSM**: Delivery silencers forms (only for rear air delivery)
- **MSSR**: Recovery silencers forms (only for rear air delivery)

NOTE for more details on accessories and equipment, please referr to the technical handbook

(1) Under the conditions of nominal air and water flow

Features and technological advantages

RTX units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- **HIGH EFFICIENCY VENTILATION**
  Ventilation is one of the major factors of power consumption; for this reason particular attention has been given to the study and the construction of the ventilation system.

  They have been used in both supply and recovery (if present), **fans or plug fans with EC brushless motors** which enables high performances, and low power consumption, also compared to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.
  A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.

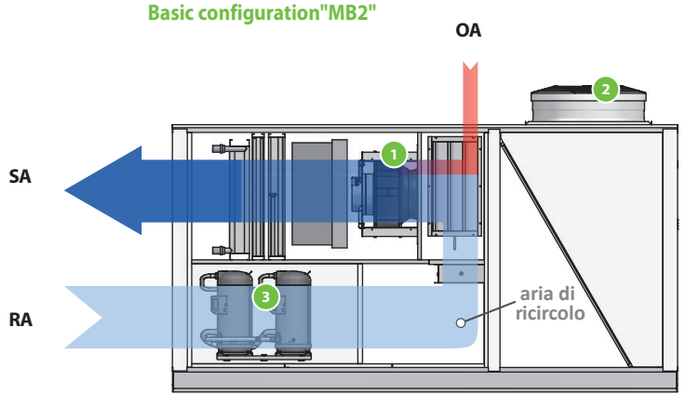
  Axial fans for the external section of the unit are of helycal type
  As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.

- **MAXIMUM SEASONAL EFFICIENCY**
  To improve the efficiency of the cooling circuit , we have used scroll tandem compressors with different power between them (compressors UNEVEN except for sizes 09 and 14). This feature allows a reduction of consumptions and a better adaptability to the demands of the system., especially in the operation at partial loads, ensuring higher seasonal efficiency.
- **AIR QUALITY IN THE ROOM**
  Particular attention has been given to the quality of air naturally in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications.
  They are also available as (optional) compact filters F7 and F9 or electronic H10 flow of fresh air .

- **ACTIVE THERMODYNAMIC RECOVERY**
  In the "MB3" setting there is also a thermodynamic recovery for the recovery of energy contained in expelled air , in such a way that the expelled air flow invests the external finned heat exchanger, allowing higher performances and efficiencies.

Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of special software.

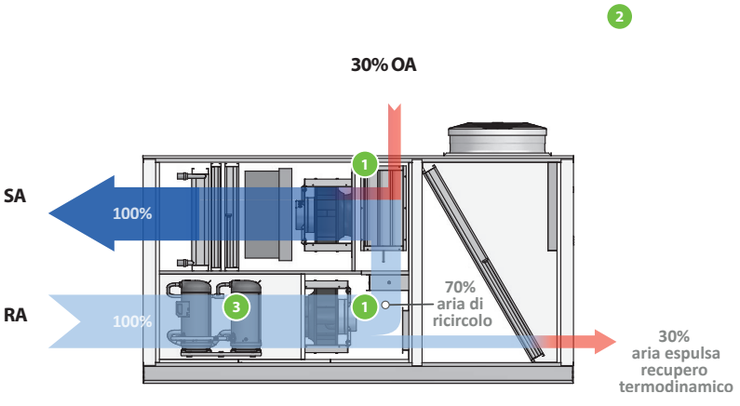
Basic configuration"MB2"



1. Plug fan supply only
2. Axial fans
3. Tandem scroll compressors

SA air supply
RA extracted air
OA external air

Configuration with thermodynamic recovery "MB3"



1. Plugfan supply and recovery
2. Axial fans
3. Tandem scroll compressor

Technical data

Mod. RTX F/H (vers. MB1)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	50,1	60,1	68,5	81,2	94,2	103,5	114,1	125,3
Sensitive cooling capacity		kW	37,5	43,3	48,6	58,9	66,9	75,1	81,5	88,2
Sensitive / total cooling power			0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
Compressor input power		kW	10,9	14,5	16,8	18,0	21,7	23,9	28,1	33,2
EER		W/W	4,61	4,16	4,07	4,51	4,34	4,33	4,07	3,77
EER (global)			3,51	3,28	3,14	3,25	3,18	3,30	3,13	2,91
Heating capacity	(2)	kW	49,4	61,1	69,4	80,8	94,0	102,3	113,5	126,5
Compressor input power		kW	9,2	12,7	14,2	15,7	18,1	19,6	22,6	26,4
COP	(3)	W/W	5,38	4,83	4,89	5,14	5,19	5,21	5,02	4,79
COP (global)		W/W	3,92	3,70	3,63	3,57	3,61	3,77	3,66	3,48

Mod. RTX F/H (vers. MB2)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	52,9	63,4	72,2	85,8	99,2	108,9	120,1	131,8
Sensitive cooling capacity		kW	40,1	45,9	51,7	62,6	71,0	79,7	86,5	92,7
Sensitive / total cooling power			0,8	0,7	0,7	0,7	0,7	0,7	0,7	0,7
Compressor input power		kW	11,0	14,6	17,1	18,2	22,0	24,2	28,6	33,8
EER		W/W	4,80	4,33	4,23	4,71	4,50	4,49	4,21	3,90
EER (global)			3,67	3,43	3,29	3,37	3,31	3,43	3,21	3,02
Heating capacity	(2)	kW	50,7	61,9	70,6	82,4	95,1	103,5	115,0	127,9
Compressor input power		kW	8,5	11,7	13,2	14,6	16,7	18,1	20,9	24,4
COP	(3)	W/W	5,96	5,30	5,37	5,64	5,70	5,72	5,49	5,24
COP (global)		W/W	4,26	4,00	3,91	3,77	3,87	4,04	3,86	3,73

Mod. RTX F/H (vers. MB3)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	53,4	64,0	73,2	86,6	100,2	110,1	121,6	133,6
Sensitive cooling capacity		kW	40,2	45,9	51,9	63,2	71,2	79,9	86,9	93,4
Sensitive / total cooling power			0,75	0,72	0,71	0,73	0,71	0,73	0,71	0,70
Compressor input power		kW	10,8	14,3	16,6	17,8	21,5	23,6	27,8	32,8
EER		W/W	4,94	4,49	4,41	4,85	4,65	4,66	4,38	4,07
EER (global)			3,36	3,13	2,92	3,05	2,94	3,11	2,88	2,70
Heating capacity	(2)	kW	52,3	64,2	73,9	85,3	98,9	107,9	120,5	134,3
Compressor input power		kW	8,6	11,8	13,4	14,8	17,0	18,5	21,4	25,0
COP	(3)	W/W	6,06	5,45	5,52	5,78	5,81	5,85	5,62	5,37
COP (global)		W/W	3,82	3,57	3,38	3,37	3,34	3,58	3,36	3,22

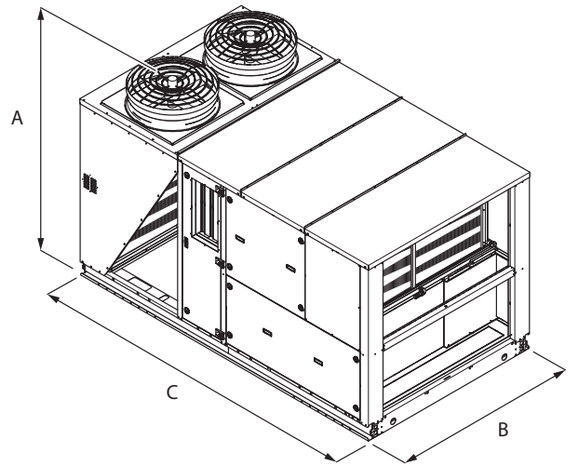
Date 14511
Cooling (performance is the same also for the cold only versions)
(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;
(2) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.;
(3)Only compressors

Technical data

GENERAL DATA				09	10	11	12	13	14	15	16
Compressors											
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	2	2	2	2	2	2	2	2
Circuits			n°	1	1	1	1	1	1	1	1
Capacity steps	(3)		%	2	3	3	3	3	2	3	3
Refrigerant gas			type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Fans											
External fans			type	axial AC	axial AC	axialAC	axial AC	axial AC	axial AC	axial AC	axial AC
			n°	2	2	2	2	2	2	2	2
Fans of internal flows			type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
			n°	1	1	1	1	2	2	2	2
			Ø mm	500	560	630	630	500	560	560	560
Fans of internal recovery	(4)	MB3	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
	(4)	MB3	n°	1	1	1	1	2	2	2	2
	(4)	MB3	Ø mm	500	500	500	450	450	500	500	500
Air flow of inside fan	nom/max		m^3/h	9.500	11.000	13.000	15.500	18.000	20.000	22.000	24.000
	min		m^3/h	6.650	7.700	9.100	10.850	12.600	14.000	15.400	16.800
Available static pressure (flow)	(5)		Pa	700	544	567	460	733	604	528	751
Available static pressure (recovery)	(5)		Pa	194	207	228	205	222	226	240	255
Sound data											
Sound pressure			dB(A)	70	69	72	75	76	76	78	80
Sound power			dB(A)	78	77	80	83	84	84	86	88
Power supply			V/ph/Hz	400V/3/50Hz							

(3) Sizes 09-14 don't have UNEVEN compressors
(4) Not present in configurations **MB2 and MB1**
(5) At the nominal/maximum capacity, G4 filter medium fouling
Sound pressure
Sound pressure measured in free field (1m, Q=2) away from the outer surface of the ducted unit, Available static pressure 300Pa at nominal flow (in accordance with the UNI EN ISO 3744).
Note: For more informations please refer to the technical documentation available on the website www.aermec.com

Dimensional data(mm)



Mod. RTX		Vers.	09	10	11	12	13	14	15	16
A	(mm)	All	2061	2061	2061	2373	2373	2440	2440	2440
B	(mm)	All	1900	1900	1900	2100	2100	2200	2200	2200
C	(mm)		3400	3400	3400	3400	3400	4000	4000	4000
Empty weight	(kg)	MB2	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.
	(kg)	MB3	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. Please contact head office

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Cod.: SRTXUY.03 / 1801

AERMEC

RTX 17/23

Rooftop
Air/air for external installation
with plug fans and scroll compressors
Cooling capacity 152÷315kW
Heating capacity 153÷311kW

HFC
Refrigerant
R410A



- **FAN TREATMENT SECTION PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE–COOLING/ENTHALPIC FREE–COOLING OPTION**
- **FOR MEDIUM DENSITY APPLICATIONS**

Features

- Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB3 and MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas.
  Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB3 and MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

Versions
RTX_F cold only
RTX_H heat pump

Configurations

MB2 single ventilating section for return air and external air
MB3 double ventilating section for return air, external air and expelled air. Total free-cooling function (with 100% of external air) and standard thermodynamic recovery function.
MB4 double ventilating section for return air, external air and expelled air. Partial free-cooling function (up to 50% of the external air) and standard thermodynamic recovery function.
MB1 single ventilating section for recirculation only

Each of the different configurations can be further customised thanks to a wide selection of accessories.

- 2 cooling circuits
- High performance, low electrical consumption UNEVEN scroll tandem compressors
- Finned pack direct expansion internal and external exchangers.
- Plug type (EC) flow and recovery fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise.
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- G4 air filter installed upstream of the components to ensure low pressure drops.
- Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

(1) At nominal air and water flow conditions

Accessories

- **SSV:** Supervision system.
- **RS:** RS485 BMS serial card
- **LW:** LonWorks interface card
- **BIP:** Ethernet-pCOweb interface card (BACNET IP)
- **BAC:** BACnet MS/TP pCOnet interface card
- **FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions
- **PSTEP:** Constant flow rate adjustment, flow rate steps based on cooling circuit modulation.
- **FT7:** F7 efficiency pocket filters positioned on the supply air flow
- **FT9:** F9 efficiency pocket filters positioned on the supply air flow
- **FTE**: Electronic filters positioned on the supply air flow.
- **PSF4:** Differential pressure switch signalling dirty recovery and renewal filters (if any)
- **Gx:** Heating module with gas burner
- **BW:** Two-row hot water heating coil.
- **BWV2V:** Two-row hot water heating coil, with 2-way modulating valve
- **BWV3V:** Two-row hot water heating coil, with 3-way modulating valve
- **BE:** Two-stage electric heating coil **(not available with hot air generator)**
- **BEM:** Modulating electric heating coil **(not available with hot air generator)**
- **DCPR:** AC fans with pressure switch device to regulate revolutions based on the condensation and evaporation pressure.
- **AXEC**: Axial fans featuring EC motors with the function of regulating revolutions based on the condensation and evaporation pressure
- **MAN**: High and low pressure gauges
- **CUR**: Humidification control (recovery humidity probe, flow humidity limit probe, ON/OFF contact and modulating analogue output)
- **DP:** Dehumidification (recovery humidity probe) and post-heating (if any) control
- **SCO2**: CO_2 **probe (not available on MB1 model)**
- **SVOC:** VOC Probe **(not available on MB1 model)**
- **STA:** Room temperature probe
- **SUA**: Relative humidity probe
- **RF**: Smoke detector
- **RFC**: smoke detector and damper management
- **PR1**: Remote control panel
- **SCM:** modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present)
- **SCMRM**: Modulating servo-controls with spring return
- **VRC**: Condensate drip tray with electric heater (only available on heat pump versions)
- **CA**: Waterproof covers on external air intake
- **CF**: Flue pipe (only on versions with gas burner modules)
- **GP**: External coil protection grid
- **VT**: anti-vibration mounts

NOTE: for more details on accessories and equipment, please refer to the technical manual

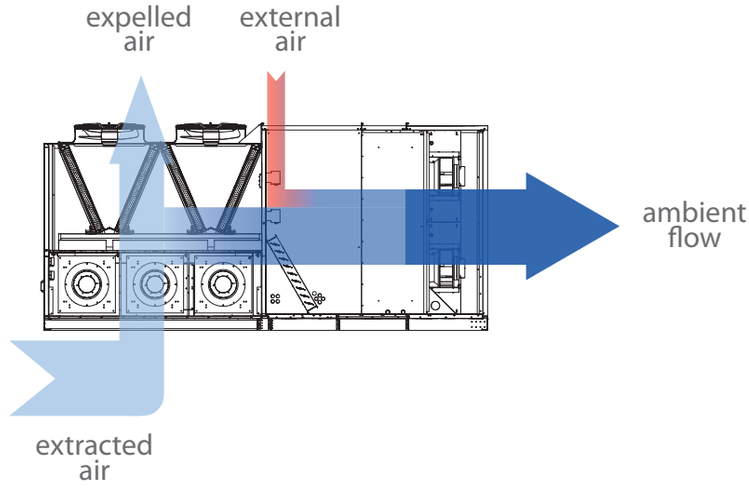
Technological functions and advantages

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

- **EXTREMELY HIGH-EFFICIENCY VENTILATION** As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.
  Both in flow and in recovery (if any), EC brushless motor plug fans were used, which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow adjustment and resulting in compactness, versatility and easy maintenance.
  Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.
  Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction.
  As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.
- **MAXIMUM SEASONAL EFFICIENCY** To improve cooling circuit efficiency, we used scroll tandem compressors with different power between them (UNEVEN compressors on all sizes). This detail allows for consumption reduction and improved adaptability to system demands, especially in operation at partial loads, ensuring higher seasonal efficiency.
- **AIR QUALITY IN THE ROOM** Naturally, we also paid special attention to the quality of the air in the room, a task entrusted to the standard G4 efficiency filters.
  Compact F7 and F9 or electronic H10 filters are also optionally available on the fresh air flow.
- **ACTIVE THERMODYNAMIC RECOVERY** In the MB3 and MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.

Obviously, all of these technological advantages are controlled by cutting edge thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB3 configuration with double ventilating section for return air, external air and expelled air. Total free-cooling function (with 100% of external air) and standard thermodynamic recovery function.



Technical data

Mod. RTX (vers. MB1)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	152	170	192	213	232	246	289
Sensitive cooling capacity		kW	112	124	137	150	168	179	201
Sensitive / total cooling power		kW/kW	0,74	0,73	0,72	0,70	0,73	0,73	0,70
Compressor input power		kW	33,0	37,4	42,6	50,7	56,3	61,5	67,9
EER	(3)	W/W	4,60	4,54	4,50	4,21	4,12	4,00	4,26
EER (global)		W/W	3,25	3,22	3,24	3,04	3,07	2,99	3,04
Heating capacity	(2)	kW	153	171	193	216	231	246	296
Compressor input power		kW	30,4	34,0	37,5	43,8	46,0	49,2	61,6
COP	(3)	W/W	5,02	5,02	5,14	4,94	5,02	5,00	4,81
COP (global)		W/W	3,46	3,46	3,57	3,42	3,54	3,50	3,33

Mod. RTX (vers. MB2)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	160	180	202	225	244	259	305
Sensitive cooling capacity		kW	120	131	145	158	179	189	212
Compressor input power		W/W	33,4	37,9	43,2	51,6	57,3	62,5	68,9
EER	(3)	W/W	4,81	4,74	4,67	4,36	4,26	4,14	4,42
EER (global)		kW	3,41	3,38	3,38	3,17	3,19	3,10	3,17
Heating capacity	(2)	kW	155	174	195	219	234	249	301
Compressor input power		W/W	28,1	31,5	34,6	40,5	42,6	45,3	57,1
COP	(3)	W/W	5,52	5,52	5,65	5,43	5,49	5,48	5,27
COP (global)		W/W	3,71	3,72	3,83	3,67	3,79	3,75	3,57

Mod. RTX (vers. MB3)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	161	181	204	227	247	262	307
Sensitive cooling capacity		kW	120	132	146	160	179	191	212
Compressor input power		W/W	32,8	37,2	42,4	50,4	55,9	60,9	67,6
EER	(3)	W/W	4,92	4,87	4,80	4,50	4,41	4,31	4,54
EER (global)		kW	3,10	3,05	3,01	2,80	2,89	2,78	2,86
Heating capacity	(2)	kW	159	179	202	228	244	260	311
Compressor input power		W/W	28,3	31,9	35,2	41,2	43,5	46,4	58,1
COP	(3)	W/W	5,63	5,62	5,75	5,52	5,60	5,61	5,35
COP (global)		W/W	3,35	3,32	3,35	3,17	3,34	3,25	3,17

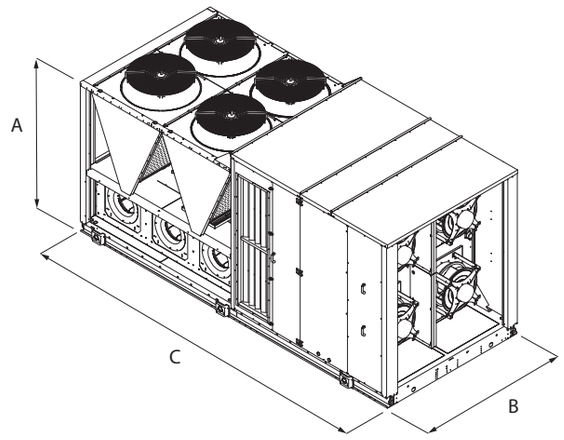
Date 14511
Cooling (performance is the same also for the cold only versions)
(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;
(2) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.;
(3)Only compressors

Technical data

GENERAL DATA				17	18	19	20S	20	21	23
Compressors										
Compressors			type				scroll			
			no.	4	4	4	4	4	4	4
Circuits			no.	2	2	2	2	2	2	2
Partialisation steps			%	6	6	6	6	6	6	6
Refrigerant gas			type				R410A			
Centrifugal										
External fans			type				AC axial			
			no.	4	4	4	4	4	4	6
Internal flow fans			type				RAD EC			
			no.	2	2	3	3	3	3	4
			Ø mm	630	630	560	560	560	630	560
Internal recovery fans (MB3)	(3)	MB3	type				RAD EC			
	(3)	MB3	no.	3	3	3	3	3	3	4
	(3)	MB3	Ø mm	500	500	500	500	560	560	560
Expulsion fans (MB4)	(3)	MB4	type				RAD EC			
	(3)	MB4	no.	2	2	2	2	2	2	2
	(3)	MB4	Ø mm	450	450	450	500	560	560	560
Air flow rate	min		m^3/h	18200	20300	23100	25900	28000	30800	33600
	nom		m^3/h	26000	29000	33000	37000	40000	44000	48000
	max		m^3/h	36000	36000	44000	44000	53000	53000	53000
Avail. flow static pressure	(4)		Pa	623	470	497	680	644	415	731
Avail. MB3 recovery static pressure	(4)		Pa	895	776	566	789	788	589	560
Sound data										
Sound power level			dB(A)	83	83	85	88	85	87	90
Sound pressure level			dB(A)	75	75	77	80	77	79	82
Electric power supply			V/ph/Hz				400V/3/50Hz			

(3) Not present in **MB2 and MB3** configurations
(4) At nominal/maximum flow rate, new clean G4 filter
Sound Pressure
Sound pressure measured in free field, at (1m, Q = 2) away from the external surface of the channelized, Steamer static 50Pa in supply and extract (according to the UNI EN ISO 9614-2).
Note: For further information, refer to the technical documentation available at www.aermec.com

Dimensional data



Mod. RTX		Vers.	17	18	19	20	21	22	23
A	(mm)	All	2430	2430	2430	2430	2430	2430	2430
B	(mm)	All	2200	2200	2200	2200	2200	2200	2200
C	(mm)		5210	5210	5210	5210	7750	7750	7750

Code: SRTX17-23UY.01 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

RTY 01/10

Roof-top
Air/Air for external installation
with plug fans and scroll compressors
Cooling capacity 30÷135kW
Heating capacity 29÷142kW

HFC
Refrigerant
R410A



- **HANDLING SECTION WITH PLUG FANS COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE–COOLING OPERATION**
- **FOR HIGH CROWDING APPLICATIONS**

Features

- Independent Roof-top type air conditioner for treatment, filtration and renewal of the air, based on the chosen configuration. RTY units are designed for high crowding applications, such as cinemas, conference rooms, restaurants, nightclubs being intended for operation with 80% external and expelled air .
  The standard unit allows to manage the cooling operation and the recovery of the energy contained in the exhaust air allowing higher performances and efficiencies.

Versions
RTY_H heat pumps

Configurations
MB3 with mixing chamber with three dampers, return fan and heat recovery from expelled air.

The configuration can be further customized with a wide choice of accessories

- 1 refrigerant circuit
- High efficiency scroll compressors (tandem UNEVEN) and low power consumption
- Finned exchangers of the refrigerant circuit direct expansion.
- Supply and return fans, of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through all the internal components, with the minimum noise.
- Group of axial fans for extremely silent operation placed on the condensing section.
- Electronic control of condensation and evaporation are standard to extend further the operating limits of the unit.
- G4 air filter on the flow of outside air and on the recovery; they are installed upstream of the components, to ensure low pressure drops.
- Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions C
  Interfaces for connections to remote control supervision system, available as optional.

Accessories and fittings

- **SSV:** Supervision system
- **RS:** Serial card BMS RS485
- **LW:Interface card** LonWorks
- **BIP:** Interface card Ethernet-pCOweb (BACNET IP)
- **BAC:** interface card BACnet MS/TP pCOnet
- **FTH:** Enthalpic free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit
- **FT7:** pocket filters F7 efficiency placed on the flow of supply air.
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air
- **H10**: Electronic filters placed on the flow of supply air.
- **PSF2: Differential pressure switch signaling fouled filters of recovery, renewal and discharge**
- • **Gx:** Heating module with gas burner
- **BW:** 2-rows heating coil with hot water
- **BWV2V:** 2-rows heating coil with with hot water, with 2-way modulating valve.
- **BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.
- **BE:** Electric heating coil 2 stages **(not available with hot air generator)**
- **BEM: Modulating electric heating coil (not available with hot air generator)**
- **BPGC:** After heating coil with hot gas .
- **AXEC**: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
- **MAN**: High and low pressure gauges
- **U:** installed steam ramp
- **UP**: Immersed electrode producer standard supplied and installed steam ramp
- **CUR**: Humidification control (Humidity probe in recovery , limit humidity probe in supply, contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2**: Probe CO_2
  SVOC: Probe VOC
- **STA:** Room temperature probe
- **SUA**: Room humidity probe
- **RF**: Smoke detector
- **RFC**: Smoke detector and recirculation damper closure management and external air intake
- **PR1**: Remote control panel
- **SCMRM**: Modulating servo-controls with spring return
- **CA**: Waterproof headphones on external air intake
- **CF**: Flue pipe (only on version with gas burner module)
- **GP**: Protection grille for external coils
- **VT**: antivibration mounts
- **MSSM**: Delivery silencers forms (only for rear air delivery)
- **MSSR**: Recovery silencers forms (only for rear air delivery)

NOTE: for more details on accessories and equipment, please refer to the technical handbook.

(1) Alle condizioni di portate aria e acqua nominali

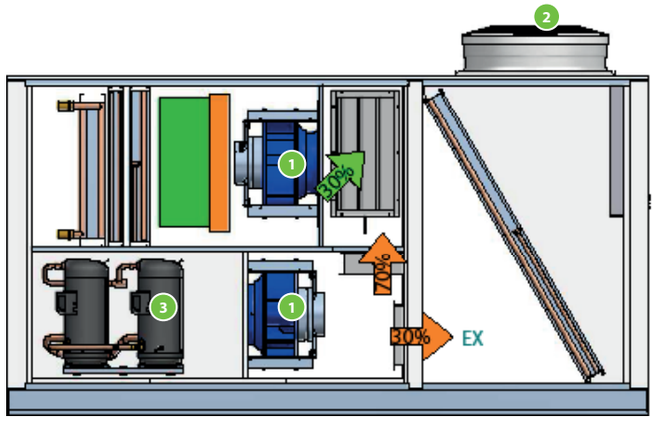
Features and technological advantages

RTY units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- **HIGH EFFICIENCY VENTILATION**
  Ventilation is one of the major factors of power consumption, for this reason particular attention has been given to the study and the construction of the ventilation system.
  Fans type plug-fans with brushless EC motors have been used in both supply and recovery; they enables high performances and low power consumption; also comparing them to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.
  A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.
- Axial fans for the external section of the unit are of helycal type; the electronic control of condensation is standard and it regulates the fan speed according to the load required, allowing a noise reduction.
  As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.
- **MAXIMUM SEASONAL EFFICIENCIES**
  To improve the efficiency of the refrigerant circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for size 08. This feature allows a reduction of consumptions and a better adaptability to the demands of the system, especially in the operation at partial loads, ensuring higher seasonal efficiency .
- Particular attention has been given naturally also to the quality of air in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications.
  They are also available as an (optional) compact filters F7 and F9 or electronic H10 on the flow of fresh air.
- **ACTIVE THERMODYNAMIC RECOVERY**
  It is also available a thermodynamic recovery for the recovery of the energy contained in the exhaust air in such a way that the flow of exhaust air invests the external finned heat exchanger, allowing higher performances and efficiencies.

Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of a special software.

Configuration with thermodynamic recovery "MB3"



1. Plugfan supply and recovery
2. Axial fans
3. Tandem scroll compressors
4. Thermodynamic recovery EX exhaust air

Technical data

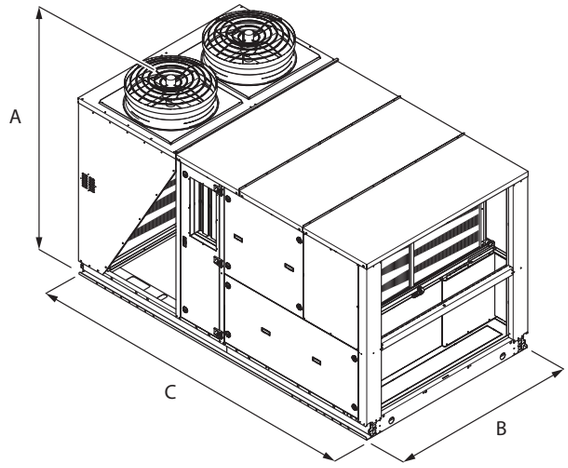
Mod. RTY Heat pump			01	02	03	04	05	06	07	08	09	10
Cooling capacity	(1)	kW	30,2	39,6	48,7	65,4	75,3	84,3	90,9	107,6	121,4	133,6
Sensitive cooling capacity		kW	21,2	27,1	32,6	43,1	48,9	55,2	61,1	70,5	80,6	87,4
Sensitive / total cooling power		kW	0,70	0,68	0,67	0,66	0,65	0,66	0,67	0,66	0,66	0,65
Compressor input power		kW	5,3	8,4	9,7	13,1	15,2	17,5	18,5	23,3	27,6	32,6
EER		W/W	5,70	4,71	5,00	5,00	4,96	4,82	4,92	4,61	4,39	4,09
EER (global)		W/W	4,63	4,02	3,86	3,54	3,54	3,44	3,41	3,33	3,20	3,01
Heating capacity	(2)	kW	29,3	39,7	48,5	66,5	76,6	85,8	91,4	110,4	123,4	137,9
Compressor input power		kW	4,4	7,0	8,4	12,4	14,2	15,7	15,5	19,2	21,8	25,5
COP		W/W	6,67	5,68	5,77	5,38	5,39	5,47	5,89	5,73	5,66	5,41
COP (global)		W/W	5,21	4,70	4,30	3,75	3,78	3,77	3,85	3,91	3,84	3,70

Date 14511
(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;
(2) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.;
(3)Only compressors

GENERAL DATA				01	02	03	04	05	06	07	08	09	10
Compressors													
Compressors			type	scroll									
			n°	2	2	2	2	2	2	2	2	2	2
Circuits			n°	1	1	1	1	1	1	1	1	1	1
Capacity steps	(3)		%	3	3	3	3	3	3	3	2	3	3
Refrigerant gas			type	R410A									
Fans													
External fans			type	Axial AC									
			n°	1	1	2	2	2	2	2	2	2	2
Internal fans of flow			type	RAD EC									
			n°	1	1	1	1	1	1	1	1	1	2
			Ø mm	315	315	350	450	450	450	500	560	630	450
Internal fans of recovery			type	RAD EC									
			n°	1	1	1	1	1	1	1	2	2	2
			Ø mm	350	400	400	450	450	500	500	450	450	450
Air flow of inside fan		nom/max	m^3/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500
		min	m^3/h	2450	3150	3850	4900	5600	6650	8050	9800	10500	11550
Available static pressure of supply	(4)	max	Pa	1376	1007	722	475	688	644	462	623	464	772
Available static pressure of recovery	(4)	max	Pa	279	281	283	282	283	286	291	298	301	306
Power supply			V/ph/Hz	400V/3/50Hz									

(3) Sizes 08 don't have UNEVEN compressors
(4) At the nominal/maximum flow rate, G4 medium fouling filter
Sound pressure
Sound pressure measured in free field, (1m, Q=2) away from the external surface of the ducted unit, available static pressure 300Pa at a nominal flow (in accordance with the UNI EN ISO 3744).
Note: For more informations please refer to the technical documentation available on the website www.aermec.com

Dimensional data (mm)



Mod. RTY		Vers.	01	02	03	04	05	06	07	08	09	10
A	(mm)	All	2061	2061	2061	2373	2373	2373	2373	2373	2373	2373
B	(mm)	All	1900	1900	1900	2100	2100	2100	2100	2100	2100	2100
C	(mm)	All	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400
Empty weight	(kg)		c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. please contact head office

Cod.: SRTYUY.01 /1801

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AIR/WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.
The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.
The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

	AIR / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	ANKI 020H-080H	Reversible heat pump with inverter		5,8-18,6	6,0-20,2	214
	ANLI 101H	Reversible heat pump with inverter	-	29,0	31,0	218
	HSI	Reversible inverter split heat pump	-	5,5-10,4	7,7-12,8	222
	ANK 020H-150H	Reversible heat pump optimised for heating	-	6,8-39,9	7,8-35,9	226
	SWP	Heat pump for hot water production (with reciprocating compressor)	-	-	1,9	230
	ANL 020-202	Chiller / Condensing unit	-	5,6-43,7	-	232
	ANL 020-202H	Reversible heat pump	-	5,6-49,9	6,1-45,7	236
	ANL 290-650	Chillers / Condensing units	-	55,0-133,0	-	240
	ANL 290H-650H	Reversible heat pump	-	52,9-174,2	60,8-147,0	244
	NRK 0090-0150	Reversible heat pump optimised for heating	-	18,3-40,6	20,2-34,6	248
	NRK 0200-0700	Reversible heat pump optimised for heating	-	35,5-148,0	42,3-175,0	252
	NRL 0280-0750	Chiller	-	56,6-193,6	-	256
	NRL 0280H-0750H	Reversible heat pump	-	50,7-179,0	58,4-205,4	260
	NRV 0550	Chiller	-	103,5-108,1	-	264
new	**NRB 0282-0754**	Chiller	-	56,0-209,0	-	266
	NRB 0800-3600	Chiller (plate heat exchanger)	-	217-1047	-	270
	NRB 0800-3600	Chiller (shell and tube heat exchanger)	-	217-1047	-	274
	NRB 0800H-3600H	Reversible heat pump (plate heat exchanger)	-	196,0-969,3	210,0-1002,0	278
	NRB 0800H-3600H	Reversible heat pump (shell and tube heat exchanger)	-	196,0-969,3	210,0-1002,0	282
	NRL 0800H-1800H	Reversible heat pump	-	183,0-470,0	228,0-526,0	286
	Units with scroll compressors and centrifugal or Plug Fans					
	CL 025-200	Chiller with Plug Fan	-	5,8-40,3	-	290
	CL 025H-200H	Reversible heat pump with Plug Fan	-	6,3-38,3	7,8-44,0	294
	NLC 0280-1250	Chiller with Plug Fan	-	52,1-318,4	-	298
	NLC 0280H-1250H	Reversible heat pump with Plug Fan	-	52,0-315,6	56,5-349,1	302
	Units with screw compressors					
	NSM 1402-9603	Chiller	-	302-2100	-	306
	NSMI 1402-4402	Chiller with Inverter screw compressors		285-1006	-	314
	NSH 1251-3602	Reversible heat pump	-	250,0-730,0	282,0-789,0	318
	NSG 1402-9603	Chiller (with R1234ze)	-	228-1578	-	322
	Units with centrifugal compressors					
	TBX 1401-4102	Chiller	-	259-861	-	330

ANKI

Reversible inverter heat pump Air/Water outdoor installation
Inverter compressor , plate exchanger and axial fan
Cooling capacity 5,8 - 18,6 kW
Heating capacity 6,08 - 20,2 kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT programme: LCP
The products involved can be found at the website
www.eurovent-certification.com

Variable Multi Flow
VMF



• PRODUCTION OF HOT WATER UP TO 60 °C
• PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM –20 °C UP TO 42 °C

Features

Reversible outdoor inverter heating pump for air-conditioning systems where, in addition to cooling rooms, high temperature hot water is required for heating or for the production of hot domestic water.
All the units are equipped with inverter compressors, axial fans, external coil with aluminium fins, and a
plate heat exchanger on the side. The base, the structure and the panels are made of steel treated with polyester anti-corrosion paints.
They are also available with an integrated hydronic unit, thereby simplifying also the final installation because it just need to be connected electrically and hydraulically to be able to start it.

Versions
ANKI H: Standard
ANKI HX: With inverter pump

Range of operations
Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer.
Hot water production up to 60°C (for more information see the technical documentation)

- Flow switch, high and low pressure transducers fitted as standard.
- Water filter supplied
- Option of an integrated hydronic unit, which contains the main hydraulic components.
- Micro-processor adjustment Electronic board

Accessories

- **MOD485K**: RS-485 interface for supervising systems with MODBUS protocol.
- **MULTICONTROL**: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
  SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced. **VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 30 m with screened cable, otherwise up to 10 m.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area.
- **DCPX**: Low temperature device for correct cooling mode operation with ambient temperatures
- **BDX**: Condensate drip tray.
- **VT**: Anti-vibration mounts.
- **SAF:** Thermal Buffer tank for the instantaneous production of domestic hot water.
  Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.

Accessories factory fitted only
- **KR**: Electric anti-freeze resistance for plate heat exchanger.
- **KRB**: Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

COMPATIBILITY with the VMF SYSTEM
For further information about the system see the specific documentation.

Accessory compatibility

ANKI		vers	020	025	040	045	070	075	080
MOD485K			•	•	•	•	•	•	•
MULTICONTROL			•	•	•	•	•	•	•
SPLW	(1)		•	•	•	•	•	•	•
SDHW	(1)		•	•	•	•	•	•	•
PR3			•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•
BS4KW230M			•	•	•	•	-	-	-
BS6KW230M			•	•	•	•	-	-	-
BS6KW400T			-	-	-	-	•	•	•
BS9KW400T			-	-	-	-	•	•	•
DCPX	(2)		71	71	71	71	71	71	71
BDX			30	30	30	30	5	5	5
VT		H/HX	9	9	9	9	9	9	9
SAF	(3)		•	•	•	•	•	•	•
Accessories factory fitted only									
KR2			•	•	•	•	•	•	•
KRB1			•	•	•	•	-	-	-
KRB2			-	-	-	-	•	•	•

(1) Probes required with MULTICONTROL to manage the following additional functions: SPLW for secondary plant management, SDHW for DHW management
(2) **Not use the accessory DCPX for units with fans "J or F"**
(3) For more information, see the commercial documentation available on the website www.aermec.com

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field **Code**

1,2,3,4 ANKI

5,6,7 **Size**
020-025-040-045-070-075-080

8 **Model**
H Heat pump

9 **Versions**
° Standard
X With inverter pump

10 **Heat recovery**
° Without heat recovery

11 **Coil fin**
° Aluminium
V In painted aluminium-copper (epoxy paint)

12 **Fans**
° Standard
J Inverter
F Standard phase cut

13 **Field of use**
° Standard (leaving water temperature down to -8°C)

14 **Evaporator**
° Standatd

15 **Power supply**
M 230V/1/50Hz (020-025-040-045)
T 400V/3N/50Hz (070-075-080)

16 **Filed not used**
°

Technical Data

ANKI - H				020	025	040	045	070	075	080
	V/ph/Hz			230V~50Hz				400V /3/50HZ		
12°C / 7°C	Cooling capacity	(1)	kW	5,85	7,31	9,39	11,78	13,7	16,4	18,6
	Total input power	(1)	kW	1,96	2,61	3,15	4,22	4,80	6,15	7,62
	EER	(1)		2,98	2,80	2,98	2,79	2,86	2,67	2,44
	ESEER	(1)		4,15	4,10	4,06	4,10	4,20	4,17	4,12
	Water flow rate	(1)	l/h	1026	1258	1622	2017	2375	2845	3222
	Pressure drop	(1)	kPa	16	22	13	19	17	25	31
40°C / 45°C	Heating capacity	(2)	kW	6,23	7,80	9,35	12,33	15,4	17,8	20,3
	Total input power	(2)	kW	1,93	2,46	3,06	4,12	4,85	6,06	7,27
	COP	(2)		3,22	3,17	3,05	3,00	3,17	2,93	2,80
	Water flow rate	(2)	l/h	1062	1351	1646	2124	2633	3041	3471
	Pressure drop	(2)	kPa	14	21	10	17	17	23	30
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW									
	Pdesignh	(3)		6	7	9	12	14	17	18
	SCOP	(3)		3,58	3,55	3,40	3,20	3,50	3,33	3,30
	ηs	(3)		140	139	133	125	137	130	129
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+
	Cooling mode for low temperature									
	ηsc			137,1	138,4	147,3	147,7	136,7	135,6	134,4
	SEER			3,50	3,54	3,76	3,77	3,49	3,47	3,44

ANKI - HX				020	025	040	045	070	075	080
	V/ph/Hz			230V~50Hz				400V /3/50HZ		
12°C / 7°C	Cooling capacity	(1)	kW	6,00	7,49	9,59	12,00	14,0	16,7	18,9
	Total input power	(1)	kW	1,89	2,52	3,04	4,09	4,65	5,99	7,47
	EER	(1)		3,18	2,97	3,16	2,93	3,01	2,79	2,53
	ESEER	(1)		4,89	5,01	4,78	4,79	4,65	4,65	4,59
	Water flow rate	(1)	l/h	1026	1258	1622	2017	2375	2845	3222
	High static pressure	(1)	kPa	74	68	76	61	81	61	41
40°C / 45°C	Heating capacity	(2)	kW	6,08	7,61	9,16	12,11	15,10	17,50	20,05
	Total input power	(2)	kW	1,86	2,36	2,95	3,98	4,70	5,92	7,14
	COP	(2)		3,28	3,23	3,10	3,04	3,21	2,96	2,81
	Water flow rate	(2)	l/h	1062	1351	1646	2124	2633	3041	3471
	High static pressure	(2)	kPa	76	69	77	60	70	50	27
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW									
	Pdesignh	(3)		6	7	9	12	14	16	19
	SCOP	(3)		3,83	3,83	3,60	3,35	3,60	3,43	3,40
	ηs	(3)		150	150	141	131	141	134	133
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+
	Cooling mode for low temperature									
	ηsc			161,7	167,0	172,3	171,9	148,0	149,4	147,8
	SEER			4,12	4,25	4,38	4,37	3,78	3,81	3,77

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

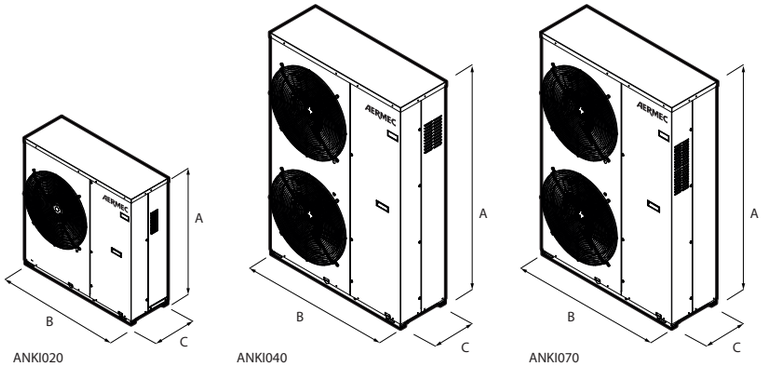
(3) Efficiencies for low temperature Applications (35°C)

Technical Data

Electrical data			020	025	040	045	070	075	080
Power supply				**230V/1/50Hz**				**400V/3N/50Hz**	
Total input current (cooling)	°	A	8,3	11,1	13,5	18,1	7,3	9,4	11,4
Total input current (heating)		A	10,5	13,2	17,6	0,0	7,3	9,1	10,8
Maximum current (FLA)		A	12,1	14,1	20,0	23,6	12,5	13,5	15,0
Starting current (LRA)		A	8,0	8,0	10,0	10,0	15,0	15,0	15,0
Total input current (cooling)	X	A	9,0	11,8	14,3	18,8	8,3	10,4	12,5
Total input current (heating)		A	11,2	13,9	18,4	0,8	8,3	10,2	11,9
Maximum current (FLA)		A	12,9	14,9	20,8	24,4	13,6	14,6	16,1
Starting current (LRA)		A	8,8	8,8	10,8	10,8	16,1	16,1	16,1
Inverter Compressor									
Compressor		n°/Type	1/ twin rotary	1/ twin rotary	1/ twin rotary	1/ twin rotary	1/ Scroll	1/ Scroll	1/ Scroll
Circuit		n°				1			
Refrigerant		Type				R410A			
Heat exchanger system side - Plate									
Exchanger		n°				1			
hydraulic connections (In/Out)		Ø				1"			
Axial fans									
Fans		n°	1	1	2	2	2	2	2
Air flow rate (cooling)			3590	3590	7480	7480	7350	7350	7350
Sound data (cooling mode)									
Sound power level		dB(A)	64,0	65,4	66,7	67,7	67,7	69,0	69,0
Sound pressure level		dB(A)	32,7	34,1	35,4	36,3	36,3	37,6	37,6

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



ANKI020
ANKI025

ANKI040
ANKI045

ANKI070
ANKI075
ANKI080

ANKI			020	025	040	045	070	075	080
A	Alls	mm	1028	1028	1481	1481	1481	1481	1481
B	Alls	mm	1000	1000	1000	1000	1000	1000	1000
C	Alls	mm	346	346	346	346	450	450	450
Weight	H	kg	80	80	113	113	174	174	174
	HX	kg	82	82	115	115	178	178	178

Cod.: SANKIUY.07/1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

ANLI

Reversible heat pumps inverter
Air/water outdoor installation.
Axial fans and scroll compressor
Cooling capacity 29 kW
Heating capacity 31 kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participates at EUROVENT program: LCP
The involved products can be found in the website
www.eurovent-certification.com

Variable Multi Flow
VMF
INVERTER TECHNOLOGY



- **STANDARD VERSION**
- **VERSION WITH BUILT–IN HYDRONIC KIT INVERTER**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

Features

Reversible Heat pumps units
Version
ANLI_H Heat pumps, without hydronic kit
Versions with hydronic kit
ANLI_HX with standard pump inverter

- **Operational limits (1)**
  - max. external air temperature 42°C
  - max. Leaving water temperature 60°C heating mode
- Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
- Perfect water temperature control even in systems with low water content
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation
- Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
  Constant ΔP: maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close
  Variable ΔP: reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)
- Water filter, differential pressure switch, depending on the model, fitted on all units.
- High efficiency heat exchangers with trace heating as standard
- Axial flow fan units for extremely quiet operation
- Fitted with EMC filters
- The built-in hydraulic kit includes the main water circuit components
- Controller:
- Aermec Modu_Control circuit board
- User interface with 6 soft-touch keys, 4 digit display, 6 LEDs
- Control of the leaving water temperature with PID algorithm
- Set-point compensation based on the external air temperature
- Display of operating frequency
- Control of compressor ramp speed
- Auto-adaptive intelligent defrosting
- Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory (when provided)
- Load limiting safety control by reducing compressor speed
- High and low pressure transducers
- Automatic reset of alarms before tripping
- Alarms history

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **MODU-485BL**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERSET**: accessory allows the automatic compensation of the operating set point of the unit to which it is connected, based on a 0-10V MODBUS input signal.
- **MULTICONTROL**: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.

- **VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**
- **PR3**: Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be controlled with a shielded cable at a distance up to 150 m.
- **DCPX**: Allows correct operation, in cooling mode, with outside temperatures lower than 20 °C and as low as – 10 °C, in heating mode up to 42 °C.
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
  - BS6KW400T (6 kW, 400V/3/50Hz)
  - BS9KW400T (9 kW, 400V/3/50Hz)
- **VT**: Anti-vibration mounts.
- **SAF:** Thermal accumulator for the instantaneous production of domestic hot water.

Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.

Accessories factory fitted only

- **KR**: Electric anti-freeze resistance for plate heat exchanger.
- **KRB**: Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

COMPATIBILITY with VMF SYSTEM
For further information on system, refer to specific documentation.

ANLI_H	vers	101
MODU-485BL	All	•
AERSET	All	•
MULTICONTROL	All	•
SPLW	All	•
SDHW	All	•
VMF-CRP	All	•
PR3	All	•
DCPX	All	53
VT	All	15
BS6KW400T	400V/3N	•
BS9KW400T	400V/3N	•
SAF		•
Accessories factory fitted only		
KR	All	2
KRB	All	3

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3,4	ANLI
5,6,7	**Size**
	101
8	**Model**
	H Heat pump
9	**Versions**
	° Standard
	X With inverter pump
	P With on/off pump
10	**Heat recovery**
	° Without heat recovery
11	**Coil**
	° Aluminium
	R Copper
	S Tinned copper
	V In painted aluminium-copper (epoxy paint)
12	**Field of use**
	° Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13	**Evaporator**
	° Standard
14	**Power supply**
	T 400V/3N/50Hz

Technical Data

	ANLI - H			101
12°C / 7°C	Cooling capacity	(1)	kW	28,77
	Total input power	(1)	kW	11,74
	EER	(1)		2,45
	ESEER	(1)		4,11
	Cooling Energy Class Eurovent	(1)		E
	Water flow rate	(1)	l/h	4963
	Pressure drop	(1)	kPa	50
40°C / 45°C	Heating capacity	(2)	kW	31,7
	Total input power	(2)	kW	11,4
	COP	(2)		2,78
	Heating Energy Class Eurovent	(2)		D
	Water flow rate	(2)	l/h	5484
	Pressure drop	(2)	kPa	59
23°C / 18°C	Cooling capacity	(3)	kW	41,81
	Total input power	(3)	kW	13,66
	EER	(3)		3,06
	Cooling Energy Class Eurovent	(3)		G
	Water flow rate	(3)	l/h	7301
	Pressure drop	(3)	kPa	104
30°C / 35°C	Heating capacity	(4)	kW	33,62
	Total input power	(4)	kW	9,83
	COP	(4)		3,42
	Heating Energy Class Eurovent	(4)		F
	Water flow rate	(4)	l/h	5764
	Pressure drop	(4)	kPa	67
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW			
	Pdesignh	(5)		30
	SCOP	(5)		2,73
	ηs	(5)		106
	Efficiency Energy Class	(6)		A+
	Cooling mode for low temperature			
	ηsc			149,2
	SEER			3,81

	ANLI - HX/HP			101	
12°C / 7°C	Cooling capacity	(1)	kW	29,4	
	Total input power	(1)	kW	11,71	
	EER	(1)		2,51	
	ESEER	(1)		4,4	
	Cooling Energy Class Eurovent	(1)		D	
	Water flow rate	(1)	l/h	4963	
	High static pressure	(1)	kPa	92	
40°C / 45°C	Heating capacity	(2)	kW	31,03	
	Total input power	(2)	kW	11,37	
	COP	(2)		2,73	
	Heating Energy Class Eurovent	(2)		D	
	Water flow rate	(2)	l/h	5484	
	High static pressure	(2)	kPa	85	
23°C / 18°C	Cooling capacity	(3)	kW	42,39	
	Total input power	(3)	kW	13,85	
	EER	(3)		3,06	
	Cooling Energy Class Eurovent	(3)		F	
	Water flow rate	(3)	l/h	7301	
	High static pressure	(3)	kPa	3,64	
30°C / 35°C	Heating capacity	(4)	kW	32,93	
	Total input power	(4)	kW	9,8	
	COP	(4)		3,36	
	Heating Energy Class Eurovent	(4)		F	
	Water flow rate	(4)	l/h	5764	
	High static pressure	(4)	kPa	71,64	
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW				
				HX	**HP**
	Pdesignh	(5)		29	30
	SCOP	(5)		3,23	3,25
	ηs	(5)		126	127
	Efficiency Energy Class	(6)		A+	A+
	Cooling mode for low temperature				
	ηsc			139,8	
	SEER			3,57	

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Water evaporator 23°C/18°C, External air 35°C

(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

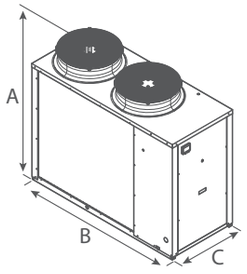
(5) Efficiencies for low temperature Applications (35°C)

Technical Data

				101
				F1
Electrical data				
Power supply			V/ph/Hz	400V/3N/50Hz
Total input current (cooling)	(6)	H	A	16,30
	(6)	HX/HP	A	17,98
Total input current (heating)	(7)	H	A	15,70
	(7)	HX/HP	A	17.45
Total input current (heating)	(8)	H	A	13,57
	(8)	HX/HP	A	15.21
Maximum current (FLA)	(9)	H	A	21,00
Starting current (LRA)	(9)	H	A	30,00
Compressor				
Compressors			Type/n°	scroll/1
Circuit			n°	1
Refrigerant			Type	R410A
Heat exchanger system side				
Exchanger			Type/n°	Plate/1
hydraulic connections (In/Out)		(in/out)	Ø	1"1/4
Axial fans				
Fan			Type/n°	inverter/2
Air flow rate (cooling)			m³/h	13200
Sound data (cooling mode)				
Sound power level			dB(A)	76,0
Sound pressure level			dB(A)	44,0

(6) Water evaporator 12°C/7°C, External air 35°C
(7) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(8) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(9) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions and weight



ANLI 101H

ANLI				**101**
A		mm	All	1450
B		mm	All	1750
C		mm	All	750
Weight	**H**	kg		293
	HX/HP	kg		308

Cod.: SANLIUY.21 /1711

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HSI

Reversible inverter Air/Water split heat pump for Heating, cooling and the production of domestic hot water
Heating Capacity from 5kW to 10kW
Cooling Capacity from 8kW to 14kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

AERMEC participates in the EUROVENT program: LCP
The products concerned appear on the site www.eurovent-certification.com

Variable Multi Flow
VMF

INVERTER TECHNOLOGY



HSI_C

HSI_E

HBI_WT / WTS / WTT / WTST (Accessories)

• PRODUCTION OF HOT WATER UP TO 60°C
• PRODUCTION OF DOMESTIC HOT WATER WITH OUTSIDE TEMPERATURES FROM –20°C TO 45°C

Features

HSI is the new split inverter heat pump system, **more efficient than normal boiler systems** as it guarantees heating, cooling and distribution of domestic hot water if combined with domestic hot water storage tanks (accessory), **efficiently and sustainably year-round.**
HSI has been designed to meet the needs of the new constructions market as well as the renovation market, **replacing or accompanying conventional boilers.**
The system can be installed in systems with any hydronic terminal, **and is already supplied with the main hydraulic components, thus facilitating final installation.**

Operating limits
Working at full load up to -20°C outside air temperature in winter, and up to 48°C in summer.
Technical hot water production up to 60°C (for more information see the technical documentation)

Versions
HSI_C with HSI_E Single phase split heat pump
HSI_CT with HSI_ET Three phase split heat pump

Special features of the system:
HSI_C outdoor unit:
- Rotary Dual Stage Inverter Compressor, with vapour injection inside the compressor, which makes it possible to reach high temperatures of produced water and increase performance at partial loads, with minor electrical consumption.
- Axial Fan Inverters designed for aerodynamic optimisation, allowing a reduction of noise level and an increase in the air flow rate efficiency at the same time.
- Base electric resistor kit to prevent the formation of ice while the heat pump is in operation
- Electronic thermostatic valve.
- Length of cooling lines up to 30m, maximum difference in level between outdoor and indoor units 15m

HSI_E Hydronic Module Indoor Unit:
- High and low pressure transducers
- Integrated hydronic unit, which contains the main hydraulic components.
  - Inverter pump
  - Plate heat exchanger
  - Expansion tank
  - Safety valve
  - Flow switch
  - Pressure gauge
  - Water filter
  - Electric resistors
  - Room temperature probe provided
- **Adjustment**, The Remote-enabled Control Panel is integrated within the indoor unit and allows for the following:
  - Management of a 3-way valve (not provided)
  - Weekly programming with 5 time frames per day
  - Auto-Restart
  - Emergency function (in the event of a heating or domestic hot water mode malfunction, the electric resistors are activated)
  - Rapid domestic hot water heating function (Quick Hot Water)
  - Weather Dependent Mode function (Climatic Adjustment)
  - Quiet function for silent functionality, programmable with a timer
  - Condensation Control
  - **In order to save electricity, the electric resistor contained inside the indoor unit is not enabled, but can be activated from the control panel.**
  - When the anti-legionella function is set, the HSI unit heats the entire tank automatically once a week, up to a maximum temperature of 70°C, which kills the bacteria instantly.

Accessories

- **HBI_WT (230V~50Hz)**
- **HBI_WTT (400V 3N~50Hz)**

Domestic hot WATER storage tank of 200, 300 litres with main coil and back-up 3kW electrical resistor
- Magnesium Sacrificial Anode
- Stainless steel tank and coil
- Painted sheet metal outer casing and insulation material, thickness 50mm
- Internal installation

- **HBI_WTS (230V~50Hz)**
- **HBI_WTST (400V 3N~50Hz)**

Domestic hot WATER storage tank of 200, 300 litres with main coil, supplementary coil and back-up 3kW electrical resistor
- Magnesium Sacrificial Anode
- Stainless steel tank and coil
- Painted sheet metal outer casing and insulation material, thickness 50mm
- Internal installation

Compatibility of the domestic hot water storage tank with HSI

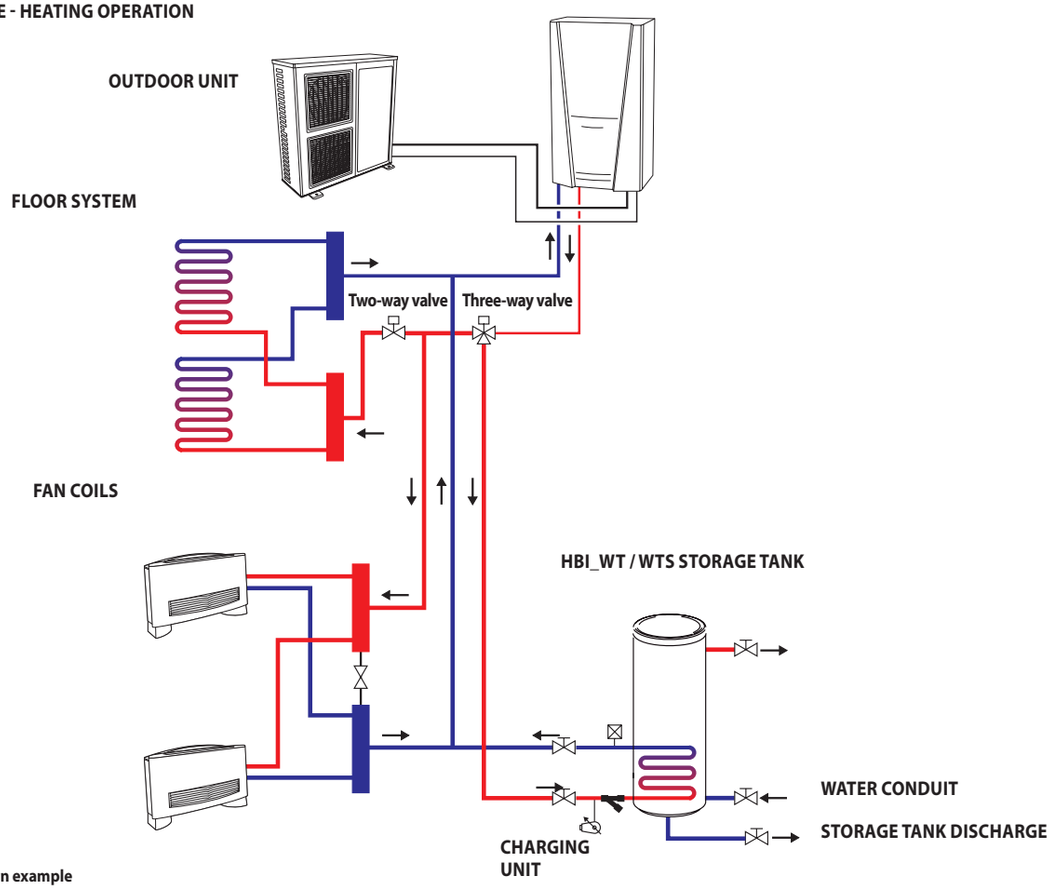
	HSI080C	HSI100C	HSI120CT	HSI140CT
MODEL 230V~50Hz	**HSI080E**	**HSI100E**	**HSI120ET**	**HSI140ET**
HBI200WT/WTS	•	•	-	-
HBI300WT/WTS	•	•	-	-
MODEL 400V 3N~50Hz	-	-		
HBI200WTT/WTST	-	-	•	•
HBI300WTT/WTST	-	-	•	•

Domestic hot water storage tank technical data

HSI_C/CT			**HBI200WT/WTT**	**HBI200WTS/WTST**	**HBI300WT/WTT**	**HBI300WTS/WTST**
Electrical Data			230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz
Capacity		l	200	200	300	300
Min. temperature setting	*	°C	40			
Max. temperature setting	*	°C	80			
Electric resistor						
Quantity		no.	1			
Power		kW	3			
Input Current		A	13			
Hydraulic connections						
Use (in/out)		Type/Ø	G 1/2" (Female)			
Main coil		Type/Ø	G 3/4" (Female)			
Supplementary coil (L)		Type/Ø	/	G 3/4" (Female)	/	G 3/4" (Female)
Supplementary coil technical data						
Length		m	/	10	/	10
Ø x Thickness		mm	/	22 x 0,8	/	22 x 0,8

* With electric resistors without electric resistors 40 ÷ 50 °C

SYSTEM EXAMPLE - HEATING OPERATION



The drawing is only an example

Technical data

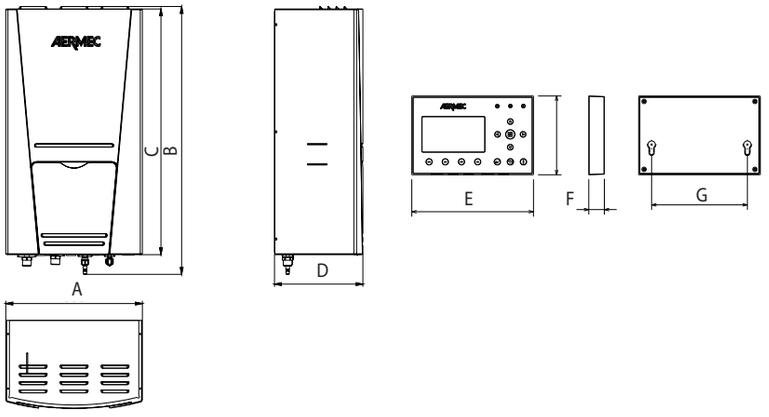
HSI_C/CT				80C	100C	120CT	140CT
HSI_E/ET				80E	100E	120ET	140ET
			V/ph/Hz	220~240V 50Hz	220~240V 50Hz	380-415V~3N 50Hz	380-415V~3N 50Hz
12°C/7°C	Cooling power	(1)	kW	5,5	6.9	9,6	10,0
	Absorbed power	(1)	kW	1,85	2.34	3,02	3.22
	HSI_E/ET max. power absorbed	(1)	kW	6,2	6,2	6,2	6,2
	EER	(1)		2,97	2,95	3,18	3.11
	ESEER	(1)		3,20	3.10	3.40	3.40
	Eurovent class - cold	(1)		A	B	A	A
	Water flow rate	(1)	l/h	946	1187	1651	1720
	Useful head	(1)	kPa	15	15	15	15
40°C/45°C	Thermal power	(2)	kW	7.7	9.0	12,0	12.8
	Absorbed power	(2)	kW	2.26	2.65	3,24	3.56
	COP	(2)		3.41	3.4	3,70	3.60
	Eurovent class - hot	(2)		A	A	A	A
	Water flow rate	(2)	l/h	1324	1548	2064	2202
	Useful head	(2)	kPa				
23°C/18°C	Cooling power	(3)	kW	8.2	9,7	13,5	14,0
	Absorbed power	(3)	kW	1,86	2,46	3.46	3.68
	EER	(3)		4.41	3,94	3.90	3,80
	Water flow rate	(3)	l/h	1410	1668	2322	2408
	Useful head	(3)	kPa	15	15	15	15
30°C/35°C	Thermal power	(4)	kW	8,0	9,2	12,0	14,0
	Absorbed power	(4)	kW	1,85	2.19	2,67	3,33
	COP	(4)		4.32	4,20	4.49	4,20
	Water flow rate	(4)	l/h	1376	1582	2064	2408
	Useful head	(4)	kPa	15	15	15	15
	Performance in average climate conditions						
	Pdesignh	(5)		6,20	6,50	8,40	9,20
	SCOP	(5)		4,07	3,99	4,15	4,09
	ηs	(5)		160	157	163	161
	Efficiency Energy Class	(7)		A++	A++	A++	A++
	Pdesignh	(6)		5,60	5,60	10,00	11,00
	SCOP	(6)		3,15	3,15	3,42	3,40
	ηs	(6)		126	126	138	138
	Efficiency Energy Class	(7)		A++	A++	A++	A++
	Cooling mode for low temperature						
	ηsc			189.8	193.7	171.6	175.0
	SEER			4.82	4.92	4.37	4.45

Data (14511:2013)
(1) Water evaporator 12°C/7°C, Outside air 35°C
(2) Water condenser 40°C/45°C, Outside air 7°C d.b./6°C w.b.
(3) Water evaporator 23°C/18°C, Outside air 35°C
(4) Water condenser 30°C/35°C, Outside air 7°C d.b./6°C w.b.
(5) Efficiency in applications for low temperatures (35°C)
(6) Efficiency in applications for average temperatures (55°C)
(7) Energy efficiency class in accordance with regulation no.811/2013 Pdesignh ≤ 70kW

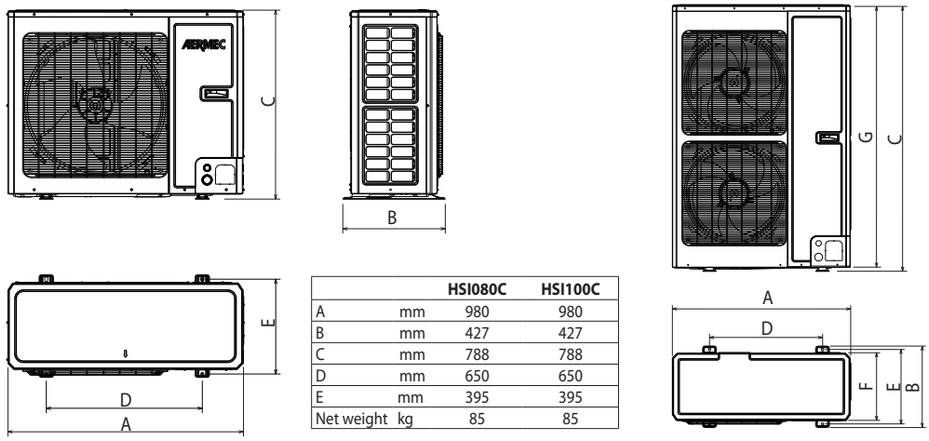
HSI_C/CT		80C	100C	120CT	140CT
HSI_E/ET		80E	100E	120ET	140ET
Electrical Data		220~240V 50Hz	220~240V 50Hz	380-415V~3N 50Hz	380-415V~3N 50Hz
Total current absorbed when cold	A	13,8	13,8	6.9	6.9
Total current absorbed when hot	A	16,4	16,4	8.2	8.2
HSI_C / CT outdoor unit					
Rotary Two Stage Inverter Compressor					
Compressors	no.		1		
Circuit	no.		1		
Coolant gas	Type		R410A		
Chiller Connections					
Gas line	mm(inch)		15,9(5/8")		
Liquid Line	mm(inch)		9,52(3/8")		
Axial Fans Inverter					
Fans	no.	1	1	2	2
Air flow rate, cooling		3511	3511	2917	7500
Sound Data					
sound power level	dB(A)	67	67	70	70
Sound pressure level	dB(A)	53	53	57	57
HSI_E / ET Indoor Unit					
System side heat exchanger - Plates					
Quantity	no.		1		
Circulator					
Quantity	no.		1		
Input Power	kW		105		
Expansion tank					
Quantity	no.		1		
Capacity	l		10		
Max pressure	bar		3		
Electric resistor					
Quantity	no.		1		
Power	kW		6		
Stages	no. (kW)	2 (3+3)	2 (3+3)	1 (6)	1 (6)
Connections					
Chiller Connections					
Gas line	mm(inch)		15,9(5/8")		
Liquid Line	mm(inch)		9,52(3/8")		
Hydraulic connections					
In	inch(type)		G1 (Male)		
Out	inch(type)		G1 (Male)		

Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with that set forth by the Eurovent certification.
Sound pressure (Cold operation) Sound pressure measured in a free field, 10 m from the external surface of the unit (according to the UNI EN ISO 3744).
N.B.: For further information, please refer to the selection programme or the technical documentation available at www.aermec.com

Size data

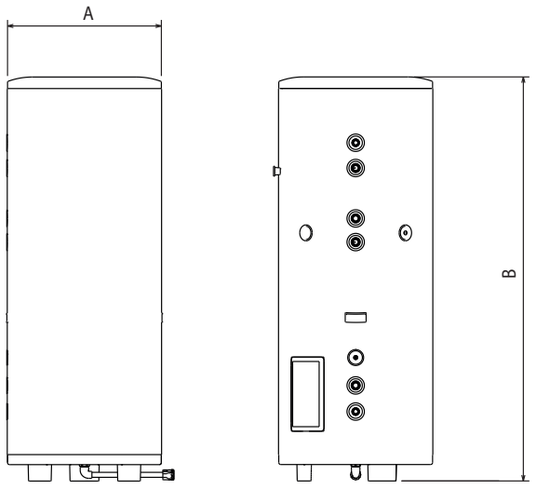


		HSI80E	HSI100E	HSI120ET	HSI140ET
A	mm	500			
B	mm	981			
C	mm	900			
D	mm	324			
E	mm	164,4			
F	mm	21			
G	mm	129,4			
Net weight	kg	56	56	58	58



		HSI080C	HSI100C
A	mm	980	980
B	mm	427	427
C	mm	788	788
D	mm	650	650
E	mm	395	395
Net weight	kg	85	85

		HSI120CT	HSI140CT
A	mm	900	900
B	mm	412	412
C	mm	1345	1345
D	mm	572	572
E	mm	378	378
F	mm	340	340
G	mm	1326	1326
Net weight	kg	126	126



		HBI200WT	HBI200WTS	HBI300WT	HBI300WTS	HBI200WTT	HBI200WTST	HBI300WTT	HBI300WTST
A	mm	540	540	620	620	540	540	620	620
B	mm	1595	1595	1620	1620	1595	1595	1620	1620
Net weight	kg	68	71	82	87	68	71	82	87

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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Tel. 0442633111 - Telefax 044293577
www.aermec.com

Code: SHSIUY.03 / 1801

ANK

Reversible heat pump Air/Water
Optimized for heating, outdoor installation
Axial fans, scroll compressor
Cooling capacity 6,82 - 29,92kW
Heating capacity 7,98 - 33,51kW

HFC
Refrigerant
R410A



Aermec participates in the EUROVENT programme: LCP
The products involved can be found at the website
www.eurovent-certification.com

Variable Multi Flow
VMF

- **VERSION WITH BUILT–IN HYDRONIC KIT**
- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO –20 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM –20 °C UP TO 42 °C**

Characteristics

Reversible Heat pumps units
Versions
ANK H: Heat pumps high efficiency, without hydronic kit
Versions with hydronic kit
ANK_HP: with standard pump
ANK HA: with buffer tank and standard pump

- **Operational limits (1)**
  - max. external air temperature 46°C cooling mode
  - max. Leaving water temperature 60°C
- heating mode
- High efficiency scroll compressors with low power input
- Electronic soft start to reduce starting current (standard for single phase versions)
- High efficiency heat exchangers with trace heating as standard
- flow switch as standard supply
- Water filter
- Axial flow fan units for extremely quiet operation
- Inverter axial flow fan units for heat pumps (ANK020H÷ANK085H)
- The hydronic kit includes:
  - Expansion tank
  - Safety valve
  - Pressure gauge
- Electronic controller (Modu_control)
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET**
  The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory: AER485 or MODU-485A**
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: **System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
  SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.
  VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX**: Fan speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C; in heating mode in summer to produce DHW with external temperatures up to +42 °C.
- **BDX**: Condensate drip tray with integrated electric heater controlled by the external air temperature sensor.
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
  - BS4KW230M (4 kW, 230V/1/50Hz)
  - BS6KW230M (6 kW, 230V/1/50Hz)
  - BS6KW400T (6 kW, 400V/3/50Hz)
  - BS9KW400T (9 kW, 400V/3/50Hz)
- **VT**: Anti-vibration mounts.
- **SAF:** Thermal accumulator for the instantaneous production of domestic hot water.
  Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the

required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.

Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%.
- **KRB**: Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **BDX**: Condensate drip tray whit electric heater

Compatibility with the VMF system
For further system information please refer to the specific documentation.

ANK		vers	020	030	040	045	050	085	100	150
MODU-485BL			•	•	•	•	•	•	•	•
AERSET			•	•	•	•	•	•	•	•
MULTICONTROL			•	•	•	•	•	•	•	•
SPLW			•	•	•	•	•	•	•	•
SDHW			•	•	•	•	•	•	•	•
VMF-CRP			•	•	•	•	•	•	•	•
PR3			•	•	•	•	•	•	•	•
DCPX	(1)		-	-	-	-	-	-	53	53
BS4KW230M			•	•	•	•	-	-	-	-
BS6KW230M			•	•	•	•	-	-	-	-
BS6KW400T			-	-	-	-	•	•	•	•
BS9KW400T			-	-	-	-	•	•	•	•
VT		H/HP	9	9	9	9	9	9	15	15
		HA	15A	15A	15A	15A	15A	15A	15	15
SAF			•	•	•	•	•	•	•	•
Accessories factory fitted only										
DRE	(2)		•	•	•	•	•	•	•(x2)	•(x2)
KRB1			•	-	-	-	-	-	-	-
KRB2				•	•	•	•	•	-	-
KRB3			-	-	-	-	-	-	•	•
BDX			8	9	9	9	9	9	-	-

(1) The size up 020 to 085 Inverter fans are fitted as standard
(2) Only available for 400V/3N/50Hz power supply
(x2) n° the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

fields **Code**
1,2,3 ANK
4,5,6 **Size**
020-030-040-045-050-085-100-150
7 **Model**
H Heat pump
8 **Version**
° Standard
P With pump
A With buffer tank and pump
9 **Execution**
° Standard
10 **Coil fins**
° Aluminium
R Copper
S Tinned copper
V Coated aluminium (epoxy paint)
11 **Field of use**
° Standard (leaving water temperature down to 4°C)
Z Low temperature (Low leaving liquid from 4°C down to up to 0°C)
Y Low temperature (Low leaving liquid from 0°C down to -8°C)
12 **Evaporator**
° Standatd
13 **Power supply**
M 230V/1/50Hz (from 020 to 045)
° 400V/3N/50Hz

Technical Data

ANK - H				020	030	040	045	020	030	040	045	050	085	100	150
		V/ph/Hz		230V~50Hz				400V /3/50Hz							
12°C / 7°C	Cooling capacity	(1)	kW	6,82	8,15	9,55	11,69	6,76	8,15	10,5	11,6	13	15,5	25,2	29,2
	Total input power	(1)	kW	2,36	2,82	3,24	3,73	2,33	2,82	3,56	3,99	4,35	5,22	8,18	10,14
	EER	(1)		2,89	2,89	2,95	3,13	2,9	2,89	2,95	2,91	2,99	2,97	3,08	2,88
	ESEER	(1)		3,16	3,24	3,28	3,46	3,18	3,24	3,27	3,25	3,4	3,33	3,89	3,85
	Water flow rate	(1)	l/h	1171	1400	1640	2008	1161	1400	1803	1992	2233	2662	4328	5015
	Pressure drop	(1)	kPa	16	9	14	14	16	9	16	14	18	24	32	36
40°C / 45°C	Heating capacity	(2)	kW	7,98	10,05	10,88	13,50	7,976	10,049	12,257	14,07	15,376	17,49	27,19	33,51
	Total input power	(2)	kW	2,54	3,11	3,48	3,88	2,5	3,11	3,79	4,19	4,43	5,07	8,44	10,57
	COP	(2)		3,14	3,23	3,13	3,48	3,19	3,23	3,23	3,36	3,47	3,45	3,22	3,17
	Water flow rate	(2)	l/h	1387	1748	1892	2348	1387	1748	2132	2447	2675	3042	4729	5829
	Pressure drop	(2)	kPa	24	16	19	19	24	15	23	21	25	30	37	47
23°C / 18°C	Cooling capacity	(3)	kW	9,44	11,30	13,23	16,30	9,36	11,3	14,52	16,04	18,07	21,43	33,69	39,06
	Total input power	(3)	kW	2,48	2,95	3,40	3,93	2,45	2,96	3,73	4,18	4,56	5,51	8,89	11,03
	EER	(3)		3,81	3,83	3,89	4,15	3,82	3,82	3,89	3,84	3,96	3,89	3,79	3,54
	Water flow rate	(3)	l/h	1628	1949	2282	2812	1615	1949	2505	2767	3117	3697	5812	6738
	Pressure drop	(3)	kPa	30	17	26	26	30	17	30	26	34	46	55	62
30°C / 35°C	Heating capacity	(4)	kW	8,67	10,92	11,93	14,04	8,67	10,92	13,4	14,8	16,27	18,46	29,12	35,9
	Total input power	(4)	kW	2,12	2,64	2,88	3,27	2,12	2,64	3,22	3,55	3,81	4,36	7,03	11,89
	COP	(4)		4,09	4,14	4,14	4,29	4,09	4,14	4,16	4,17	4,27	4,23	4,14	3,02
	Water flow rate	(4)	l/h	1502	1891	2066	2432	1502	1891	2321	2563	2818	3197	5044	6218
	Pressure drop	(4)	kPa	28	19	23	22	28	19	28	24	29	34	43	55
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh	(5)		7	9	10	12	7	9	11	13	14	16	26	32
	SCOP	(5)		3,33	3,40	3,43	3,55	3,38	3,40	3,50	3,48	3,60	4,65	3,90	3,90
	ηs	(5)		130	133	134	139	132	133	137	136	141	183	153	153
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	Cooling mode for low temperature														
	ηsc			119,6	124,1	127,8	139,0	119,8	124,1	129,8	129,8	135,0	135,0	149,4	142,3
	SEER			3,07	3,18	3,27	3,55	3,07	3,18	3,32	3,32	3,45	3,45	3,81	3,63

ANK - HP/HA				020	030	040	045	020	030	040	045	050	085	100	150
		V/ph/Hz		230V~50Hz				400V /3/50Hz							
12°C / 7°C	Cooling capacity	(1)	kW	6,91	8,25	9,67	11,85	6,84	8,25	10,61	11,74	13,22	15,68	25,78	29,92
	Total input power	(1)	kW	2,43	2,89	3,30	3,89	2,41	2,89	3,61	4,12	4,5	5,35	8,13	10,21
	EER	(1)		2,84	2,85	2,93	3,05	2,84	2,85	2,94	2,85	2,94	2,93	3,17	2,93
	ESEER	(1)		3,28	3,37	3,45	3,47	3,3	3,35	3,44	3,26	3,45	3,41	4,08	3,93
	Water flow rate	(1)	l/h	1187	1417	1661	2035	1175	1417	1822	2016	2271	2693	4428	5139
	High static pressure	(1)	kPa	65	70	64	87	65	70	61	87	80	70	113	140
40°C / 45°C	Heating capacity	(2)	kW	7,87	9,92	10,74	13,29	7,867	9,915	12,103	13,852	15,15	17,246	26,59	32,72
	Total input power	(2)	kW	2,60	3,15	3,51	3,98	2,56	3,15	3,82	4,28	4,54	5,16	8,36	10,62
	COP	(2)		3,03	3,15	3,06	3,34	3,078	3,15	3,17	3,24	3,34	3,34	3,18	3,08
	Water flow rate	(2)	l/h	1368	1725	1868	2311	1368	1725	2105	2409	2635	3000	4625	5691
	High static pressure	(2)	kPa	62	67	62	82	62	67	57	79	72	65	113	127
23°C / 18°C	Cooling capacity	(3)	kW	9,57	11,43	13,38	16,26	9,48	11,42	14,67	16,26	18,3	21,69	34,41	39,96
	Total input power	(3)	kW	2,51	3,00	3,43	4,27	2,48	3	3,76	4,27	4,66	5,59	8,73	11,04
	EER	(3)		3,81	3,81	3,90	3,81	3,82	3,81	3,9	3,81	3,93	3,88	3,94	3,62
	Water flow rate	(3)	l/h	1651	1972	2308	2805	1635	1970	2531	2805	3157	3742	5936	6893
	High static pressure	(3)	kPa	52	63	52	64	53	63	46	64	50	33	68	54
30°C / 35°C	Heating capacity	(4)	kW	8,58	10,84	11,90	13,84	8,58	10,84	13,24	14,88	16,12	18,31	28,49	35,06
	Total input power	(4)	kW	2,21	2,64	2,90	3,37	2,18	2,64	3,23	3,6	3,91	4,45	6,95	8,94
	COP	(4)		3,88	4,11	4,10	4,11	3,94	4,11	4,1	4,13	4,12	4,11	4,1	3,92
	Water flow rate	(4)	l/h	1486	1877	2061	2397	1486	1877	2293	2577	2792	3171	4934	6072
	High static pressure	(4)	kPa	58	65	58	79	58	65	53	73	65	58	103	105
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh	(5)		7	9	10	12	7	9	11	13	14	15	25	30
	SCOP	(5)		3,40	3,50	3,50	3,60	3,45	3,50	3,58	3,53	3,65	3,45	3,83	3,70
	ηs	(5)		133	137	137	141	135	137	140	138	143	135	150	145
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	Cooling mode for low temperature														
	ηsc			121,1	125,0	130,7	138,4	120,7	125,0	132,5	130,1	135,4	137,1	146,6	137,0
	SEER			3,10	3,20	3,34	3,54	3,09	3,20	3,39	3,33	3,46	3,50	3,74	3,50

Date (14511:2013)

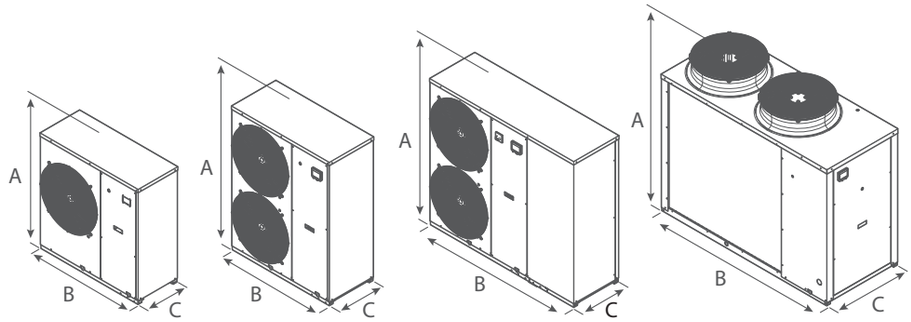
(1) Water evaporator 12°C/7°C, External air 35°C
(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(3) Water evaporator 23°C/18°C, External air 35°C
(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(5) Efficiencies for low temperature Applications (35°C)

Technical Data

				020	030	040	045	050	085	100	150
Electrical data											
230V	Total input current (cooling)	(6)	A	11,31	13,15	15,84	18,58	-	-	-	-
230V	Total input current (heating)	(6)	A	12,29	14,55	17,12	19,18	-	-	-	-
230V	Maximum current (FLA)	(6)	A	13,90	19,40	22,20	25,00	-	-	-	-
230V	Starting current (LRA)	(6)(7)	A	45,00	45,00	45,00	45,00	-	-	-	-
400V	Total input current (cooling)	(6)	A	4,3	5,6	7,1	7,7	8,7	10,7	17,0	20,4
400V	Total input current (heating)	(6)	A	4,7	6,2	7,6	8,0	9,0	10,4	17,6	21,3
400V	Maximum current (FLA)	(6)	A	6,1	7,7	9,1	10,6	11,8	12,30	21,70	25,80
400V	Starting current (LRA)	(6)	A	39,7	40,3	54,3	61,3	71,3	91,3	72,6	104,7
Scroll Compressor											
Compressors			Type/n°	scroll/1	scroll/1	scroll/1	scroll/1	scroll/1	scroll/1	scroll/2	scroll/2
Circuit			n°	1	1	1	1	1	1	1	1
Refrigerant			Type	R410A							
Heat exchanger system side											
Exchanger			Type/n°	Plate/1							
hydraulic connections (In/Out)			Ø	1"1/4							
Axial fans											
Fan			Type/n°	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2	inverter/2	std/2	std/2
Air flow rate (cooling)				3500	8000	8000	7500	7500	7500	14500	14500
Sound data (cooling mode)											
Sound power level			dB(A)	68	70.5	70.5	70.5	70.5	70.5	77	78
Sound pressure level			dB(A)	37	39.5	39.5	39.5	39.5	39.5	45.5	46.5

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
(6) Unit standar configuration without hydronic kit
(7) Unit with soft-start
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



ANK H-HP **ANK HA** **ANK 100-150 H-HP-HA**

ANK			020	030	040	045	050	085	100	150
A	All	mm	1028	1281	1281	1281	1281	1281	1450	1450
B	H/HP	mm	1000	1000	1000	1000	1000	1000	1750	1750
	HA		1358	1450	1450	1450	1450	1450	1750	1750
C	All	mm	400	400	450	450	450	450	750	750
Weight	H	kg	118	149	152	165	172	174	296	341
	HP	kg	123	154	157	175	182	184	314	362
	HA	kg	160	211	214	232	238	241	364	412

Cod.: SANKUY.17 / 1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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SWP

High temperature air cooled heat pumps for the production of domestic hot water

HFC
Refrigerant
R134a



- **AIR COOLED HEAT PUMPS FOR HOT WATER PRODUCTION UP TO 60°C (UP TO 70°C WITH AUXILIARY ELECTRIC HEATER)**
- **APPLICATION RANGE: IN HEAT PUMP WITH AIR INTAKE FROM 8°C TO 35°C (EXTENDED FROM –15°C TO 45°C WITH THE AID OF THE AUXILIARY ELECTRIC HEATER)**
- **VERSIONS WITH 300 LITRES STORAGE TANK, OR WITH 1 OR 2 COILS TO BE USED TOGETHER WITH OTHER HEAT SOURCES (SOLAR PANELS, BOILER, HEAT PUMP)**
- **AUTOSTART FUNCTION FOR THE UNIT TO RESTART AUTOMATICALLY**

Features

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation. Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

Main features

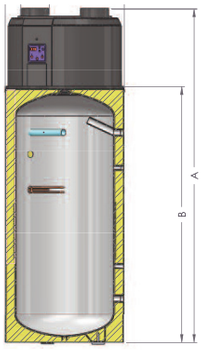
- Steel tank with a double vitrification
- Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
- Auxiliary coil to be used together with a boiler or solar panels
- Integrated NTC sensor to control the water temperature
- External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
- Anti-corrosion magnesium anode
- Hydraulic connections located at rear of unit
- Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
- Adjustable support feet
- Environmentally friendly refrigerant R134a
- Electric heater 1.5 kW 230V
- IEC power supply connector with insulating sheath
- High pressure safety devices
- Reciprocating hermetic compressor
- Radial fan with an adjustment of 40 % of the nominal flow rate
- Electronic controller:
  - water set point adjustment
  - external air temperature sensing
  - auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
  - record of run hours
  - control of minimum time between successive compressor starts
  - setting of parameters from the keyboard
  - control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
  - periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing
  - user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

Possible configurations

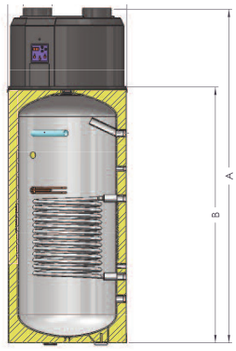
- Standard where the heat pump and the electric heater are the source of heat (SWP 301)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 301 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 301 S2)

Dimensional Data (mm)

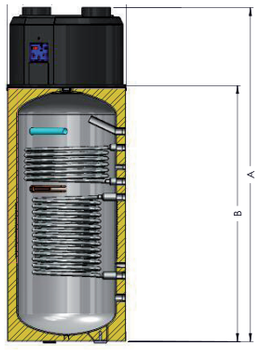
SWP 301



SWP 301 S1



SWP 301 S2



Technical Data

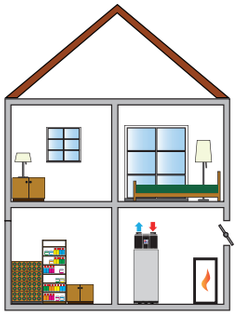
Mod.		**SWP 301**	**SWP 301 S1**	**SWP 301 S2**
Voltage - phases - frequency	V-Ph-Hz	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50
Energy Efficiency Class	(1)	A	A	A
Heating capacity in heat pump mode	W	1950	1950	1950
Electric heater power	W	1500	1500	1500
Maximum water temperature	°C	60	60	60
Intake air operating range	°C	+8*/+35	+8*/+35	+8*/+35
Total input power	W	640	640	640
Max total input current in heat pump mode	A	3,9	3,9	3,9
Max total input current in electric heater mode	A	6,8	6,8	6,8
Compressor	n°	1	1	1
Fan	n°	1	1	1
Air flow rate	m³/h	450	450	450
Sound power level	dB(A)	60	60	60
Sound pressure (1m)	dB(A)	49	49	49
Max ducted length	m	10	10	10
Air ducts minimum diameter	mm	160	160	160
Working pressure	bar	6	6	6
DHW hot water flow connection		1″	1″	1″
DHW cold water return connection		1″	1″	1″
Heating system return connection		1″	1″	1″
Heating system flow connection		1″	1″	1″
Recirculation connection		1/2″	1/2″	1/2″
Alternative heat source 1 and 2 return connection		1″	1″	1″
Net weight	Kg	116	94	134
Gross weight	Kg	112	127	145
Storage tank capacity	L	273	268	265
Unit dimensions	Height mm		1.845	
	Width mm		660	
	Depth mm		660	
Packaging dimensions	Height mm		2.050	
	Width mm		770	
	Depth mm		770	

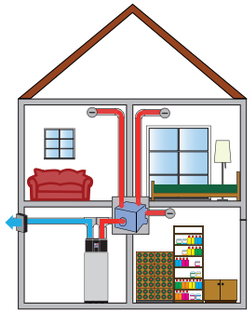
* default settings
Sound pressure measured in free field at a distance of 10m from the front and directivity factor = 2. In accordance with ISO 3744.

Performances in accordance with EN 255-3
Heating:
Condenser

Inlet temperature	15 °C
Outlet temperature	50 °C
External air temperature	15 °C

Installation Examples





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Cod.: SSWPUY.03 / 1603

ANL 020/202 only cooling

chillers, and condensing units
Air/Water for outdoor installation
Axial fan and scroll compressor:
Cooling capacity 5,65÷43,70kW

HFC
Refrigerant
R410A

Aermec participates in the EUROVENT Certification Programme: LCP The products concerned appear in the EUROVENT site www.eurovent-certification.com.

Variable Multi Flow
VMF



• STANDARD VERSION
• VERSION WITH BUILT–IN HYDRONIC KIT

Characteristics

Chillers for external installation for chilled water production with high performance scroll compressors and low electric absorption , axial fans, external copper coils with aluminum fins (from size 020 to 090) microchannel (from size 102 to 202) , plate heat exchangers. In the units (with desuperheater or total recovery) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints .

Versions
ANL_°: Chillers without hydronic kit
ANL C: Condensing unit

Versions with hydronic kit
ANL_P: with standard pump
ANL_N: with high pump
ANL_A: with buffer tank and standard pump
ANL_Q: with buffer tank and high pump

Operational limits
Work at full load up to 46°C external air temperature, with options to produced water up to -10°C (for more details please refer to the technical documentation)

- High efficiency scroll compressors with low power input
- flow switch/ pressure switch as standard supply
- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Possibility of integrated hydronik -kit, which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one high or low head pumps.
- Electronic controller (Modu_control)

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: **System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL

- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX**: an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C;

Standard for the version with desuperheater

- **VT**: Anti-vibration mounts.

Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%
- **KR**: Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA.
- **KRB**:Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **RA**: Anti-freeze electric heater for the buffer tank.

Compatibility with the VMF system
For further system information please refer to the specific documentation.

Accessory compatibility

ANL		vers	020	025	030	040	050	070	080	090	102	152	202
MODU-485BL		All	•	•	•	•	•	•	•	•	•	•	•
MULTICONTROL		All	•	•	•	•	•	•	•	•	•	•	•
SPLW		All	•	•	•	•	•	•	•	•	•	•	•
SDHW		All	•	•	•	•	•	•	•	•	•	•	•
VMF-CRP		All	•	•	•	•	•	•	•	•	•	•	•
PR3		All	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)	All	50	50	50	50	50	50	50	50	52	52	52
VT		°/°P/°C/°N	9	9	9	9	9	9	9	9	15	15	15
		°A/°Q	9	9	9	9	15	15	15	15	15	15	15
Accessories factory fitted only													
DRE	(2)		-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
KR		°/°P	2	2	2	2	2	2	2	2	100	100	100
		°A	-	-	-	-	2	2	2	2	100	100	100
RA		°A/°Q	•	•	•	•	•	•	•	•	-	-	-
RA100			-	-	-	-	-	-	-	-	•	•	•

(1) Standard for the unit with desuperheater
(2) Only for puwer supply 400V/3N/50Hz

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field **Code**

1,2,3 ANL

4,5,6 **Size**
020-025-030-040-050-070-080-090-102-152-202

7 **Model**
° Only cooling

8 **Version**
° Standard
P With pumps
N With high pump (for size from 102 to 202)
A With buffer tank and standard pump
Q With buffer tank and high pump (for size from 050 to 202)

9 **Heat recovery**
° Without recovery
D With desuperheater (4)

10 **Coil fin (5)**
° Aluminium
R Copper
S Tinned copper
V Treated aluminium

11 **Field of use**
° Standard (leaving water temperature down to 4°C)
Z Low leaving liquid (from 4°C down to up to 0°C)
Y Low leaving liquid (from 0°C down to -6°C)

12 **Evaporator**
° Standatd
C Condensing unit

13 **Power supply**
M 230V/1/50Hz (for size from 020 to 040)
° 400V/3N/50Hz (for size from 020 to 202)

(4) The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 102 to 202 are available in all versions. Desuperheater is incompatible with the low temperature options, with the condensing unit version, and for dimensional reasons even with the option Q.

(5) Coil fin options

° **Aluminium**
R e S **Only cooling model**: only available for sizes 030-090; for sizes 020-025 treatment "R and S" is replaced by cataphoresis treatment
V **Cataphoresis treatment Cooling only available only for sizes 020 ÷ 025 and 102 ÷ 202;**
Epoxy paint for models 020 ÷ 090

Technical Data

ANL				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	5,66	6,15	7,44	9,53	13,31	16,39	20,35	22,14	26,34	32,69	42,6
	Total power input	(1)	kW	1,88	2,05	2,52	3,32	4,12	4,98	6,48	6,79	8,06	10,31	13,53
	EER	(1)		3,01	3,00	2,95	2,87	3,23	3,29	3,14	3,26	3,27	3,17	3,15
	ESEER	(1)		3,43	3,43	3,40	3,33	3,74	3,82	3,65	3,71	3,85	3,99	3,94
	Water flow rate	(1)	l/h	979	1064	1287	1649	2303	2835	3521	3830	4557	5655	7370
	Pressure drop	(1)	kPa	21	21	22	24	25	26	34	35	58	61	68
	Cooling mode for low temperature (UE n° 2016/2281)													
	SEER			3,88	3,82	3,81	3,81	3,88	3,97	3,88	3,96	3,95	3,92	3,98
	ηsc		%	152	150	149	150	152	156	152	155	155	154	156

ANL - P / A				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	5,77	6,28	7,59	9,70	13,51	16,63	20,62	22,42	26,93	33,48	43,49
	Total power input	(1)	kW	1,81	1,96	2,41	3,20	4,01	4,83	6,3	6,6	8,07	10,53	13,79
	EER	(1)		3,19	3,20	3,15	3,03	3,37	3,44	3,27	3,40	3,34	3,18	3,15
	ESEER	(1)		3,50	3,54	3,55	3,48	3,85	3,97	3,8	3,95	3,96	3,94	3,82
	Water flow rate	(1)	l/h	979	1064	1287	1649	2303	2835	3521	3830	4568	5655	7385
	Useful head	(1)	kPa	73	73	71	65	76	72	57	52	84	115	91
	Cooling mode for low temperature (UE n° 2016/2281)													
	SEER			4,03	4,06	4,01	3,97	4,02	4,08	4,03	4,08	3,93	3,81	3,82
	ηsc		%	158	159	157	156	158	160	158	160	154	149	150

ANL - Q / N				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	13,72	16,87	20,9	22,72	27,07	33,66	43,72
	Total power input	(1)	kW	/	/	/	/	4,18	5,01	6,48	6,79	8,46	10,58	13,82
	EER	(1)		/	/	/	/	3,28	3,37	3,23	3,35	3,20	3,18	3,16
	ESEER	(1)		/	/	/	/	3,66	3,77	3,61	3,75	3,61	3,74	3,62
	Water flow rate	(1)	l/h	/	/	/	/	2303	2835	3521	3830	4568	5655	7385
	Useful head	(1)	kPa	/	/	/	/	160	159	144	140	140	185	159
	Cooling mode for low temperature (UE n° 2016/2281)													
	SEER			/	/	/	/	3,81	4,01	3,93	4,02	3,81	3,81	3,82
	ηsc		%	/	/	/	/	149	157	154	158	149	149	150

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C
Q Version availabe from size 050 to 202
N Version availabe from size 102 to 202

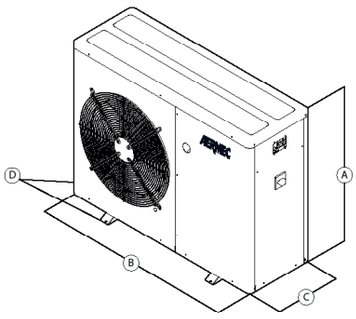
ANL - C				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2)	kW	5,70	6,00	7,50	9,60	13,7	16,8	20,8	22,5	26,9	33,4	43,7
	Total power input	(2)	kW	1,85	2,05	2,50	3,30	4,10	5,00	6,50	6,80	8,60	10,20	14,10
	EER	(2)		3,08	2,93	3,00	2,91	3,34	3,36	3,20	3,31	3,13	3,27	3,10

(2) Evaporating temperature 5°C, External air 35°C

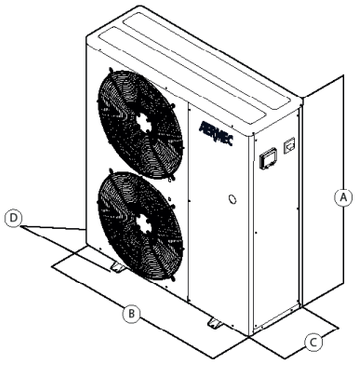
				020	025	030	040	050	070	080	090	102	152	202
Electrical data														
230V	Total input currente (cooling)	(3)	A	6.4	7.3	8.1	10.7	-	-	-	-	-	-	-
	Maximum current (FLA)	(3)	A	16.5	16.5	19.7	23.7	-	-	-	-	-	-	-
	Starting current (LRA)	(3)	A	59.5	62.5	83.7	98.7	-	-	-	-	-	-	-
400V	Total input currente (cooling)	(3)	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	15,6	18,8	24,7
	Maximum current (FLA)	(3)	A	6,0	6,0	6,7	8,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	Starting current (LRA)	(3)	A	26,5	32,5	35,7	48,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
Scroll Compressor														
Compressors			n°	1	1	1	1	1	1	1	1	2	2	2
Circuit			n°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant			Type	R410A										
Heat exchanger system side														
Exchanger			Type/n°	Plate/1										
hydraulic connections (In/Out)			Ø	1"1/4										
Connection of Condensing unit C														
Gas line			Ø	15.88	15.88	15.88	15.88	22	22	22	28	28	28	28
Liquid line			Ø	9.52	9.52	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88	15.88
Axial fans														
Fan			Type/n°	std/1	std/1	std/1	std/1	std/2	std/2	std/2	std/2	std/2	std/2	std/2
Air flow rate (cooling)			m³/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data (cooling)														
Sound power level			dB(A)	61	61	68	68	69	69	69	68	76	77	78
Sound pressure level			dB(A)	30	30	37	37	38	38	38	37	44	45	46

(3) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

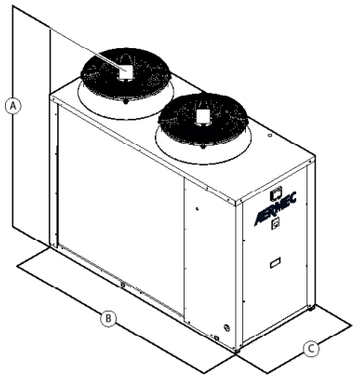
Dimensions (mm)



020 ÷ 040



050 ÷ 090



102 - 152 - 202

		020	025	030	040	050	070	080	090	102	152	202
ANL ° - P - C												
A	mm	868		1000		1252				1450		
B	mm	900		900		1124				1750		
C	mm	310		310		384				750		
D	mm	354		354		428				-		
ANL - A												
A	mm	868		1015		1281				1450		
B	mm	1124		1124		1165				1750		
C	mm	384		384		550				750		
D	mm	428		428		-				-		
ANL - Q												
A	mm	/		/		1281				1450		
B	mm	/		/		1165				1750		
C	mm	/		/		550				750		
Weight												
ANL °	kg	75		86		120	120	120	156	270	293	329
ANL - P	kg	77		91		127	127	163	163	288	314	350
ANL - A	kg	99		103		147	147	147	183	338	364	400
ANL - Q e N	kg	/		/		151	151	151	187	338	364	400
ANL - C	kg	70		78		110	110	110	141	270	293	329

Cod.: SANL020_202_CE_CO_gb.00/1710

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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ANL 020/202

Reversible Heat Pumps
Air/Water for outdoor installation
Axial fan and scroll compressor:
Cooling capacity 5,65 - 41,47kW
Heating capacity 6,27 - 44,90kW

HFC Refrigerant R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec participates in the EUROVENT Certification Programme: LCP The products concerned appear in the EUROVENT site www.eurovent-certification.com.

Variable Multi Flow VMF

Fans INVERTER TECHNOLOGY



- **STANDARD VERSION**
- **VERSION WITH BUILT–IN HYDRONIC KIT**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorbtion scroll compressors , axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.
In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water.
The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

Versions
ANL_H: Heat pumps without hydronic kit
Versions with hydronic kit
ANL_HP: with standard pump
ANL_HN: with high pump
ANL_HA: with buffer tank and standard pump
ANL_HQ: with buffer tank and high pump

Range of operations
full load up to 46 ° C ambient air temperature with the possibility to produce chilled water down to -10 ° C in cooling mode (for more details refer to the technical documentation)

- High efficiency scroll compressors with low power input
- flow switch/ pressure switch as standard supply
- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Inverter axial flow fan units for heat pumps from size 030 to 090)
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one pumps high or low head.
- Electronic controller (Modu_control)

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: **System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/ return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
  SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.
  VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX**: an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C;

Standard for the version with desuperheater

- **BDX**: Condensate drip.
- **VT**: Anti-vibration mounts.

Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%
- **KR**: Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA.
- **KRB**:Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **RA**: Anti-freeze electric heater for the buffer tank.

Compatibility with the VMF system
For further system information please refer to the specific documentation.

ANL - H		vers	020	025	030	040	050	070	080	090	102	152	202
MODU-485BL		All	•	•	•	•	•	•	•	•	•	•	•
AERWEB300		All	•	•	•	•	•	•	•	•	•	•	•
MULTICONTROL		All	•	•	•	•	•	•	•	•	•	•	•
SPLW		All	•	•	•	•	•	•	•	•	•	•	•
SDHW		All	•	•	•	•	•	•	•	•	•	•	•
VMF-CRP		All	•	•	•	•	•	•	•	•	•	•	•
PR3		All	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)	H	51	51	*	*	*	*	*	*	53	53	53
BDX		H / HP	5	5	5	5	5	5	5	5	-	-	-
		HA	5	5	5	5	6	6	6	6	-	-	-
VT		H/HP	9	9	9	9	9	9	9	9	15	15	15
		HA	9	9	9	9	15	15	15	15	15	15	15
Accessories factory fitted only													
DRE	(2)		-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
KR		H/HP	2	2	2	2	2	2	2	2	100	100	100
		HA	-	-	-	-	2	2	2	2	100	100	100
KRB3		All	-	-	-	-	-	-	-	-	•	•	•
RA		HA	•	•	•	•	•	•	•	•	-	-	-
RA100			-	-	-	-	-	-	-	-	•	•	•

(1) Standard for the unit with desuperheater
* Size with Inverter fans
(2) Only for puwer supply 400V/3N/50Hz

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field **Code**

1,2,3 ANL

4,5,6 **Size**
020-025-030-040-050-070-080-090-102-152-202

7 **Model**
H Heat pump

8 **Version**
° Standard
P With pumps
N With high pump (for size from 102 to 202)
A With buffer tank and standard pump
Q With buffer tank and high pump (for size from 050 to 202)

9 **Heat recovery**
° Without recovery
D With desuperheater (4)

10 **Coil fin (5)**
° Aluminium
R Copper
S Tinned copper
V Treated aluminium

11 **Field of use**
° Standard (leaving water temperature down to 4°C)

12 **Evaporator**
° Standard
C Condensing unit

13 **Power supply**
M 230V/1/50Hz (for size from 020 to 040)
° 400V/3N/50Hz

(4) The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 102 to 202 are available in all versions. Desuperheater is incompatible with the dimensional reasons even with the option Q.

(5) Coil fin options

° **Aluminium**
R e S **Models in heat pump:** only for sizes 030H-202H
V **Cataphoresis treatment for sizes 020H ÷ 025H**
Epoxy paint for models with heat pump 020H ÷ 202H

Technical Data

ANL - H				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	5,64	6,14	7,43	9,52	13,29	16,37	20,32	22,06	25,75	31,71	40,58
	Total input power	(1)	kW	1,89	2,06	2,53	3,33	4,14	5,01	6,51	6,87	8,82	10,48	14,28
	EER	(1)		2,98	2,98	2,94	2,86	3,21	3,27	3,12	3,21	2,92	3,03	2,84
	ESEER	(1)		3,43	3,43	3,40	3,33	3,74	3,82	3,12	3,71	3,85	3,99	3,94
	Water flow rate	(1)	l/h	979	1065	1288	1649	2301	2839	3521	3830	4465	5496	7031
	Pressure drop	(1)	kPa	30	31	32	30	34	35	44	60	55	57	62
40°C / 45°C	Heating capacity	(2)	kW	6,26	7,07	8,49	10,70	14,12	17,44	22,4	24,46	29,31	35,35	45,78
	Total input power	(2)	kW	1,97	2,19	2,71	3,28	4,42	5,04	6,5	7,12	8,88	10,45	13,76
	COP	(2)		3,18	3,23	3,13	3,26	3,19	3,46	3,45	3,44	3,30	3,38	3,33
	Water flow rate	(2)	l/h	1078	1217	1460	1843	2434	3007	3859	4207	5041	6084	7878
	Pressure drop	(2)	kPa	33	37	37	34	34	36	48	65	69	68	78
23°C / 18°C	Cooling capacity	(3)	kW	6,81	7,39	8,94	11,46	16,05	19,71	24,5	26,46	31,48	38,64	49,08
	Total input power	(3)	kW	1,99	2,16	2,65	3,48	4,34	5,24	6,82	7,2	9,24	10,98	14,94
	EER	(3)		3,42	3,42	3,37	3,29	3,70	3,76	3,59	3,68	3,41	3,52	3,29
	Water flow rate	(3)	l/h	1188	1289	1560	1996	2796	3431	4270	4622	5492	6737	8556
	Pressure drop	(3)	kPa	43	44	46	43	49	50	63	85	81	83	89
30°C / 35°C	Heating capacity	(4)	kW	6,54	7,39	8,86	11,17	14,74	18,21	23,89	25,54	30,6	36,91	47,8
	Total input power	(4)	kW	1,71	1,90	2,34	2,92	3,81	4,5	5,82	6,37	8,04	9,52	12,58
	COP	(4)		3,82	3,89	3,79	3,83	3,87	4,05	4,10	4,01	3,81	3,88	3,80
	Water flow rate	(4)	l/h	1121	1265	1518	1916	2530	3127	4012	4374	5241	6326	8191
	Pressure drop	(4)	kPa	36	41	41	37	37	40	53	72	76	75	86
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW													
	Pdesignh	(5)		6	7	8	10	13	16	21	23	28	33	43
	SCOP	(5)		3,33	3,38	3,30	3,33	3,43	3,55	3,55	3,53	3,65	3,88	3,83
	ηs	(5)		130	132	129	130	134	139	139	138	143	152	150
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	Cooling mode for low temperature													
	ηsc		%	117,3	119,3	122,4	124,9	148,2	153,3	148,5	149,0	139,5	146,8	140,5
	SEER			3,01	3,06	3,14	3,20	3,78	3,91	3,79	3,80	3,56	3,75	3,59

ANL - HP/HA				020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz		230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	5,77	6,28	7,59	9,70	13,51	16,63	20,62	22,42	26,34	32,49	41,47
	Total input power	(1)	kW	1,81	1,96	2,41	3,20	4,01	4,84	6,3	6,6	8,83	10,7	14,52
	EER	(1)		3,19	3,20	3,15	3,03	3,37	3,44	3,27	3,40	2,98	3,04	2,86
	ESEER	(1)		3,50	3,54	3,55	3,48	3,37	3,97	3,8	3,95	3,96	3,94	3,82
	Water flow rate	(1)	l/h	979	1065	1288	1649	2301	2884	3521	3830	4465	5496	7031
	High static pressure	(1)	kPa	73	73	71	65	76	72	57	52	88	124	106
40°C / 45°C	Heating capacity	(2)	kW	6,13	6,92	8,31	10,50	13,89	17,18	22,1	24,1	28,7	34,56	44,9
	Total input power	(2)	kW	1,88	2,08	2,58	3,13	4,28	4,87	6,29	6,85	8,9	10,71	14,07
	COP	(2)		3,26	3,33	3,22	3,35	3,25	3,53	3,51	3,52	3,22	3,23	3,19
	Water flow rate	(2)	l/h	1078	1217	1460	1843	2434	3007	3859	4207	5041	6084	7878
	High static pressure	(2)	kPa	69	67	65	58	72	67	46	40	64	94	68
23°C / 18°C	Cooling capacity	(3)	kW	6,96	7,55	9,13	11,67	16,32	20,01	24,84	26,86	32,11	39,43	49,93
	Total input power	(3)	kW	1,87	2,03	2,50	3,32	4,16	5,03	6,58	6,9	9,27	11,3	15,34
	EER	(3)		3,72	3,72	3,65	3,52	3,92	3,98	3,78	3,89	3,46	3,49	3,25
	Water flow rate	(3)	l/h	1188	1289	1560	1996	2796	3431	4270	4622	5492	6737	8556
	High static pressure	(3)	kPa	64	64	61	52	60	55	33	27	47	63	40
30°C / 35°C	Heating capacity	(4)	kW	6,40	7,23	8,68	10,97	14,5	17,93	23,08	25,18	29,99	36,13	46,95
	Total input power	(4)	kW	1,60	1,78	2,20	2,77	3,66	4,31	5,6	6,1	8,07	9,81	12,94
	COP	(4)		4,00	4,06	3,95	3,96	3,96	4,16	4,12	4,13	3,72	3,68	3,63
	Water flow rate	(4)	l/h	1121	1265	1518	1916	2530	3127	4012	4374	5241	6326	8191
	High static pressure	(4)	kPa	66	64	62	54	68	63	40	33	53	78	49
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW													
	Pdesignh	(5)		6	6	8	10	13	16	21	23	27	32	42
	SCOP	(5)		3,40	3,48	3,40	3,40	3,48	3,63	3,63	3,60	3,58	3,58	3,60
	ηs	(5)		133	136	133	133	136	142	142	141	140	140	141
	Efficiency Energy Class			A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	Cooling mode for low temperature													
	ηsc		%	128,7	131,7	134,9	135,7	157,0	159,9	157,9	160,3	139,5	137,6	132,7
	SEER			3,29	3,37	3,45	3,47	4,00	4,07	4,02	4,08	3,56	3,52	3,39

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Water evaporator 23°C/18°C, External air 35°C

(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

(5) Efficiencies for low temperature Applications (35°C)

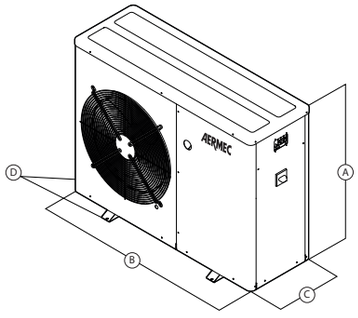
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Technical Data

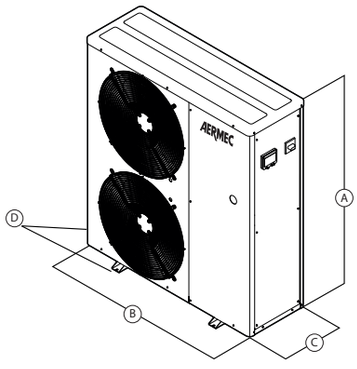
				020	025	030	040	050	070	080	090	102	152	202
Electrical data														
230V	Total input current (cooling)	(7)	A	6,4	7,3	8,1	10,7	-	-	-	-	-	-	-
	Total input current (heating)	(7)	A	6,6	7,6	9,3	11,8	-	-	-	-	-	-	-
	Maximum current (FLA)	(7)	A	17,5	17,5	20,7	24,7	-	-	-	-	-	-	-
	Starting current (LRA)	(7)	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
400V	Total input current (cooling)	(7)	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	15,6	18,8	24,7
	Total input current (heating)	(7)	A	3,8	4,4	5,4	6,8	9,5	10,3	12,9	13,8	17,0	19,0	25,0
	Maximum current (FLA)	(7)	A	7,0	7,0	7,7	9,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	Starting current (LRA)	(7)	A	27,5	33,5	36,7	49,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
Scroll Compressor														
Compressors			n°	1	1	1	1	1	1	1	1	2	2	2
Circuit			n°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant			Type						R410A					
Heat exchanger system side														
Exchanger			Type/n°						Plate/1					
hydraulic connections (In/Out)			Ø						1"1/4					
Axial fans														
Fan			Type/n°	std/1	std/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2	inverter/2	std/2	std/2	std/2
Air flow rate (cooling)				2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data (cooling mode)														
Sound power level			dB(A)	61	61	68	68	69	69	69	68	76	77	78
Sound pressure level			dB(A)	30	30	37	37	38	38	38	37	44	45	46

(7) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

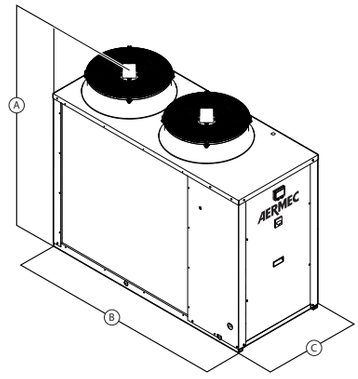
Dimensions (mm)



020 ÷ 040



050 ÷ 090



102 - 152 - 202

		020	025	030	040	050	070	080	090	102	152	202
ANL H - HP												
A	mm	868		1000		1252				1450		
B	mm	900		900		1124				1750		
C	mm	310		310		384				750		
D	mm	354		354		428				-		
ANL - HA												
A	mm	868		1015		1281				1450		
B	mm	1124		1124		1165				1750		
C	mm	384		384		550				750		
D	mm	428		428		-				-		
ANL - HQ												
A	mm	/		/		1281				1450		
B	mm	/		/		1165				1750		
C	mm	/		/		550				750		
Weight												
ANL H	kg	75		86		120	120	156	156	295	322	358
ANL - HP	kg	77		91		127	150	163	163	313	343	379
ANL - HA	kg	99		103		147	150	183	183	363	393	429
ANL - HQ e HN	kg	/		/		151	151	187	187	380	410	450

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Cod.: SANLUY.20/1711

ANL 290/650 cooling only

HFC Refrigerant R410A

Chillers
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 55÷133kW



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com

Variable Multi Flow®

VMF

• STANDARD VERSION
• VERSION WITH INTEGRATED HYDRONIC MODULE

Features

Cooling versions and condensing unit
Versioni
ANL_° standard versions.
ANL_L Low noise versions.
ANL_C Condensing versions
ANL_CL Condensing low noise versions
- High efficiency scroll compressors.
- Flow switch as standard supply.
- Water filter.
- Low and high pressure transducers as standard supply.
- High efficiency exchangers.
- Axial fans with low sound level.
- Possibility of integrated hydronic module user side:

- Buffer tank and pumps, or pumps only
- Expansion tank
- Safety valve
- Pressure gauge
- Drain valve

- Electronic controller (Modu_control).
- Microprocessor control system
- Metallic protective cabinet with anti-corrosion polyester paint.

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET:** accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.
  Mandatory accessory:
  - AER485 or MODU-485BL
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system. For complete control the following accessories are available:
- **SPLW**: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **DCPX**: Low temperature device for correct cooling mode operation with ambient temperatures from less than 10 °C down to - 10 °C.
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **GP**: Protects the external coil from blows.
- **VT**: Anti-vibration mounts.

Accessories can only be applied in the factory
- **RIF**: Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.
- **DRE**: Current soft starter device (about 26% for two-circuit-units).
  Available only with power supply 400V/3N.

COMPATIBILITY WITH THE VMF SYSTEM.
For further system information please refer to the specific documentation.

Accessory compatibility

ANL			290	300	340	400	580	620	650
MODU-485BL		Alls	•	•	•	•	•	•	•
AERWEB300		Alls	•	•	•	•	•	•	•
MULTICONTROL		Alls	•	•	•	•	•	•	•
SPLW		Alls	•	•	•	•	•	•	•
AERSET		Alls	•	•	•	•	•	•	•
PR3		Alls	•	•	•	•	•	•	•
DCPX (version with standard fan "°" Standard)	(1)	°	-	-	-	-	83	83	83
		L	inverter fans				standard	standard	standard
DCPX (version with high static pressure fan "M")		°	-	-	-	-	83	83	83
		L	62	62	62	63	83	83	83
GP		Alls	GP3	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)
VT (00)		Alls	17	17	17	17	11	11	11
VT (P1-P2-P3-P4)		Alls	13	13	13	17	11	11	11
VT (01-02-03-04)		Alls	13	13	13	13	11	11	11
Accessories can only be applied in the factory									
RIF		Alls	32	32	42	42	50	72	51

(1) Standard for chillers with desuperheater
(1) standard for version "L" only for size 580÷650
(2) Only for power supply 400V/3N/50Hz
(x2) indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field **Description**

1,2,3 **ANL**

4,5,6 **Size**
290-300-340-400-580-620-650

7 **Field of use**
° Standard with produced water down to +4 °C
Y Low leaving water up to -6 °C (3)
X Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us) (3)

8 **Model**
° Only cooling
C Condensing unit

9 **Heat recovery**
° Without heat recovery
D Desuperheater

10 **Version**
° Standard
L Low noise versions

11 **Coil**
° Aluminium
R Copper
S Tinned copper
V Coated

12 **fans** (4)
° Standard
M increased
J Inverter

13 **Power supply**
° 400V/3N/50Hz

14 **Soft-start**
° Without Soft Start
S With Soft Start

15-16 **Integrated hydronic module user side**
00 Without hydronic module
01 n° 1 Low head pump and buffer tank
02 n° 2 Low head pumps and buffer tank
03 n° 1 high head pump and buffer tank
04 n° 2 high head pumps and buffer tank
P1 n° 1 Low head pump
P2 n° 2 Low head pumps
P3 n° 1 high head pump
P4 n° 2 high head pumps

(2) Sizes up 290 to 400 are available only in the low noise mode "L"
(3) "D" option is not compatible with "Y" valve.
(4) **On / off fan Standard,** standard sizes up 580 to 650
On / off fan increased, option available for all sizes
Fans Inverter, standard sizes from 290 to 400, with no static pressure
Fans Inverter, option for sizes from 580 to 650 with static pressure

Technical data

ANL - °				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	110,79	124,06	132,91
	Total power input	(1)	kW	/	/	/	/	40,36	47,13	54,4
	EER	(1)		/	/	/	/	2,75	2,63	2,44
	ESEER	(1)		/	/	/	/	4,03	3,99	3,72
	Cooling Energy Class Eurovent	(1)		/	/	/	/	C	D	E
	Water flow rate	(1)	l/h	/	/	/	/	19176	21439	22978
	Pressure drop	(1)	kPa	/	/	/	/	81	61	70
	Cooling mode for low temperature (UE n° 2016/2281)									
	ηsc		%	/	/	/	/	155,5	153,7	152,8
	SEER			/	/	/	/	3,96	3,92	3,90

ANL - L				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	54,52	59,80	65,84	76,05	104,05	114,3	120,97
	Total power input	(1)	kW	20,96	22,99	25,19	29,88	43,69	51,23	59,44
	EER	(1)		2,60	2,60	2,61	2,55	2,38	2,23	2,04
	ESEER	(1)		3,83	3,83	3,93	3,83	3,71	3,68	3,52
	Cooling Energy Class Eurovent	(1)		D	D	D	D	E	F	G
	Water flow rate	(1)	l/h	9408	10323	11371	13134	18001	19742	20901
	Pressure drop	(1)	kPa	28	33	40	41	72	52	58
	Cooling mode for low temperature (UE n° 2016/2281)									
	ηsc		%	150,0	150,6	151,7	151,2	151,2	149,3	149,4
	SEER			3,83	3,84	3,87	3,86	3,86	3,81	3,81

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

ANL - C°				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2)	kW	/	/	/	/	115,40	128,10	138,40
	Total power input	(2)	kW	/	/	/	/	39,60	46,20	53,40
	EER	(2)		/	/	/	/	2,91	2,77	2,59

ANL - CL				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2)	kW	54,90	60,50	69,90	77,10	108,00	117,30	126,30
	Total power input	(2)	kW	20,70	22,50	24,80	29,40	39,50	47,30	54,90
	EER	(2)		2,65	2,69	2,82	2,62	2,73	2,48	2,30

(2) Evaporating temperature 5°C, External air 35°C

				290	300	340	400	580	620	650
Electrical data										
Total input currente (cooling)	°	(3)	A	/	/	/	/	70	82	94
Maximum current (FLA)	°	(3)	A	/	/	/	/	85	99	112
Starting current (LRA)	°	(3)	A	/	/	/	/	262	308	320
Starting current with soft start			A	/	/	/	/	198	230	242
Total input currente (cooling)	L	(3)	A	38	41	46	55	74	87	101
Maximum current (FLA)	L	(3)	A	49	53	58	69	85	99	112
Starting current (LRA)	L	(3)	A	130	131	162	183	262	308	320
Starting current with soft start			A	99	101	123	140	198	230	242
Scroll Compressor										
Compressors / Circuit			n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant			Type				R410A			
Heat exchanger system side										
Exchanger			Type/n°				Plate/1			
hydraulic connections (In/Out)			Ø				2"½			
Connection of Condensing unit C										
Gas line			Ø	28	35	35	42	42	42	54
Liquid line			Ø	22	22	22	28	28	28	35
Axial fans										
Fan			Type/n°	Inverter/4	Inverter/4	Inverter/4	Inverter/6	std/2	std/2	std/2
Air flow rate (cooling)				15600	15600	15600	20700	35900	35900	35900
Sound data (cooling)										
Sound power level	°		dB(A)	/	/	/	/	82	82	83
Sound pressure level	°		dB(A)	/	/	/	/	45	45	46
Sound power level	L		dB(A)	72	72	74	75	77	77	78
Sound pressure level	L		dB(A)	41	41	42	43	45	45	46

(3) Unit standar configuration without hydronic kit

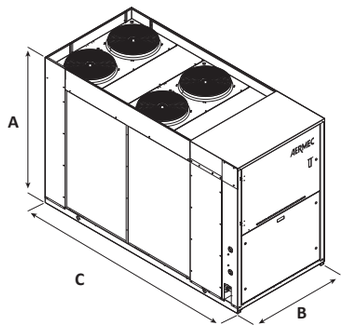
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

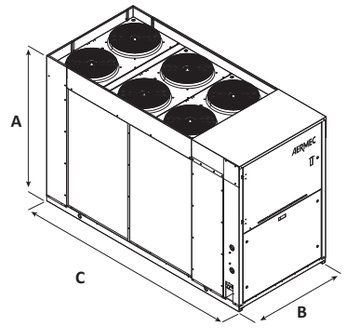
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

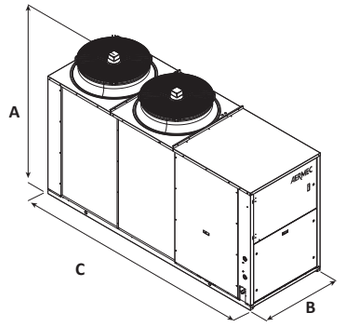
ANL°/L/C 290-300-340



ANL°/L/C 400



ANL°/L/C 580-620-650



				ANL 290	ANL 300	ANL 340	ANL 400	ANL 580	ANL 620	ANL 650
Height	A	mm	°/L/C	1605	1605	1605	1605	1875	1875	1875
Width	B	mm	°/L/C	1100	1100	1100	1100	1100	1100	1100
Depth	C	mm	°/L/C	2450	2450	2450	2450	3200	3200	3200
Empty weight		Kg	°/L	628	636	648	666	854	925	970

Cod.: SANL290_650UY:10/1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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ANL 290/650 heat pump

Reversible Heat Pumps
Air/Water for outdoor installation
Axial fan and scroll compressor:
Cooling capacity 53÷128kW
Heating capacity 61÷142kW

Variable Multi Flow

VMF

HFC Refrigerant R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participate in the EUROVENT program: LCP
the products are present on the site
www.eurovent-certification.com



- **STANDARD VERSION**
- **LOW NOISE VERSION**
- **VERSION WITH BUILT–IN HYDRONIC KIT**

Features

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorbtion scroll compressors , axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.
In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water.
The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

Versions
ANL_H: Heat pump
ANL_HL: Heat pump low noise

Range of operations
Work up to 44°C of outdoor air temperature at full load, depending on size.
For further details refer to the selection software/ technical documentation.

- High efficiency scroll compressors
- Flow switch as standard supply.
- Low and high pressure transducers as standard supply.
- High efficiency exchangers.
- Electronic controller (Modu_control).
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor control system
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature
  - Summer condensation control with 0-10V modulating signal depending on pressure, compensated according to the outside air temperature (with DCPX accessory)
  - Intelligent defrosting to decay of pressure.
  - Automatic rotation of compressors.
  - Load limiting safety control.
  - Automatic reset of alarms before total block.
  - Alarm history.

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET:** accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.
  Mandatory accessory:
  - AER485 or MODU-485BL
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICONTROL: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system**.
  For complete control the following accessories are available:
- **SPLW**: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **DCPX**: Low temperature device for correct cooling mode operation with ambient temperatures from less than 10 °C down to - 10 °C.
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **GP**: Protects the external coil from blows.
- **VT**: Anti-vibration mounts.

Accessories can only be applied in the factory
- **RIF**: Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.

COMPATIBILITY WITH THE VMF SYSTEM.
For further system information please refer to the specific documentation.

Accessory compatibility

ANL_H			290	300	340	400	580	620	650
MODU-485BL		all	•	•	•	•	•	•	•
AERNET		all	•	•	•	•	•	•	•
MULTICONTROL		all	•	•	•	•	•	•	•
SPLW		all	•	•	•	•	•	•	•
AERSET		all	•	•	•	•	•	•	•
PR3		all	•	•	•	•	•	•	•
DCPX (version with standard fan "°")	(1)	H	-	-	-	83	83	83	83
		HL	inverter fans			standard	standard	standard	standard
DCPX (version increased fan "M")		H	-	-	-	-	-	-	-
		HL	62	62	63	-	-	-	-
GP		all	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)	GP2 (x2)
VT (00)		all	17	17	17	11	11	11	11
VT (P1-P2-P3-P4)		all	13	13	13	11	11	11	11
VT (01-02-03-04)		all	13	13	13	11	11	11	11
Accessories can only be applied in the factory									
RIF		all	32	32	42	42	50	72	51

(1) Standard with desuperheater
(1) Standard for the size up 400HL to 650HL
(x2) indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Campo **Description**

1,2,3 **ANL**

4,5,6 **Size**

290-300-340-400-580-620-650 (2)

7 **Field of use**

° Standard with produced water down to +4 °C

X Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us)

8 **Model**

H Heat pump

9 **Heat recovery**

° Without heat recovery

D desuperheater (3)

10 **Versions**

° Standard

L Low noise

11 **Coil**

° Aluminium

R Copper

S Tinned copper

V Coated

12 **Fans** (4)

° Standard

M Icreased

J Inverter

13 **Power supply**

° 400V/3N/50 Hz

14 **Soft-start**

° Without Soft Start

S With Soft Start

15-16 **Integrated hydronic kit**

00 Without pump or storage tank

01 Low head pump and buffer tank

02 Single and standby low head pump and buffer tank

03 Single high head pump and buffer tank

04 Single and standby high head pump and buffer tank

P1 Low head pump

P2 Single and standby low head pump

P3 Single high head pump

P4 Single and standby high head pump

(2) Sizes up 290 to 340 are available only in the Low noise mode "L".
(3) The desuperheater can be used exclusively in the cold operation
(4) **On / off fan Standard,** standard sizes up 400 to 650
Fans on/off Increased, options only for size up ANL290HL to 340HL
Fans Inverter, standard sizes from 290 to 340, with no static pressure
Fans Inverter, option for sizes from 400 to 650 with static pressure

Technical data

ANL - H				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	82,5	105,8	121,9	128,8
	Total input power	(1)	kW	/	/	/	28,98	41,54	43,29	48,42
	EER	(1)		/	/	/	2,85	2,55	2,82	2,66
	ESEER	(1)		/	/	/	4,06	3,74	4,06	3,93
	Water flow rate	(1)	l/h	/	/	/	14226	21125	21055	22257
	Pressure drop	(1)	kPa	/	/	/	29	55	53	61
40°C / 45°C	Heating capacity	(2)	kW	/	/	/	90,02	122,24	133,56	141,49
	Total input power	(2)	kW	/	/	/	28,45	38,74	42,08	46,01
	COP	(2)		/	/	/	3,16	3,16	3,17	3,08
	Water flow rate	(2)	l/h	/	/	/	15577	21125	23077	24433
	Pressure drop	(2)	kPa	/	/	/	33	55	61	70
23°C / 18°C	Cooling capacity	(3)	kW	/	/	/	111,72	143,26	165	174,25
	Total input power	(3)	kW	/	/	/	32,14	46,11	48,21	53,98
	EER	(3)		/	/	/	3,48	3,11	3,42	3,23
	Water flow rate	(3)	l/h	/	/	/	16121	24879	28682	30319
	Pressure drop	(3)	kPa	/	/	/	36	80	96	110
30°C / 35°C	Heating capacity	(4)	kW	/	/	/	93,52	127	138,77	147
	Total input power	(4)	kW	/	/	/	23,67	32,28	35,06	38,34
	COP	(4)		/	/	/	3,95	3,93	3,96	3,83
	Water flow rate	(4)	l/h	/	/	/	16121	21862	23883	25286
	Pressure drop	(4)	kPa	/	/	/	36	60	66	77
	Performance under average climatic conditions (Average) UE n°813/2013 Pdesignh ≤ 400kW									
	Pdesignh	(5)		/	/	/	76	103	113	119
	SCOP	(5)		/	/	/	3,53	3,53	3,55	3,48
	ηs	(5)		/	/	/	138	138	139	136
	Cooling mode for low temperature									
	ηsc						157,9	145,5	160,1	152,9
	SEER						4,02	3,71	4,08	3,90

ANL - HL				290	300	340	400	580	620	650
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	52,97	57,25	65,66	77,98	100,73	116,16	122,25
	Total input power	(1)	kW	20,91	23,86	24,52	30,58	44,6	46,47	51,87
	EER	(1)		2,53	2,40	2,68	2,55	2,26	2,50	2,36
	ESEER	(1)		3,50	3,54	3,55	3,48	3,37	3,97	3,8
	Water flow rate	(1)	l/h	9138	9873	11331	13446	17385	20058	21118
	Pressure drop	(1)	kPa	26	24	31	26	40	48	55
40°C / 45°C	Heating capacity	(2)	kW	60,81	66,42	72,64	90,02	122,24	133,56	141,49
	Total input power	(2)	kW	18,82	20,61	22,37	28,45	38,74	42,08	46,01
	COP	(2)		3,23	3,22	3,25	3,16	3,16	3,17	3,08
	Water flow rate	(2)	l/h	10518	11493	12564	15577	21125	23077	2443
	Pressure drop	(2)	kPa	32	29	35	33	55	61	70
23°C / 18°C	Cooling capacity	(3)	kW	71,74	77,56	88,93	109,05	140,83	162,32	170,74
	Total input power	(3)	kW	23,18	26,43	27,21	32,61	47,59	49,74	55,58
	EER	(3)		3,09	2,93	3,27	3,34	2,96	3,26	3,07
	Water flow rate	(3)	l/h	12448	13450	15435	18911	24452	28211	29701
	Pressure drop	(3)	kPa	47	42	56	51	77	93	106
30°C / 35°C	Heating capacity	(4)	kW	63,18	69,01	75,47	93,52	127	138,77	147
	Total input power	(4)	kW	15,67	17,15	118,62	23,67	32,28	35,06	38,34
	COP	(4)		4,03	4,02	0,64	3,95	3,93	3,96	3,83
	Water flow rate	(4)	l/h	10885	11895	13002	16121	21862	23883	25286
	Pressure drop	(4)	kPa	35	32	38	36	60	66	77
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW									
	Pdesignh	(5)		51	56	61	76	103	113	119
	SCOP	(5)		3,58	3,60	3,60	3,53	3,53	3,55	3,48
	ηs	(5)		140	141	141	138	138	139	136
	Efficiency Energy Class			A+	A+	A+	/	/	/	/
	Cooling mode for low temperature									
	ηsc			142,8	137,0	152,3	149,6	142,6	157,3	148,5
	SEER			3,65	3,50	3,88	3,82	3,64	4,01	3,79

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C
(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(3) Water evaporator 23°C/18°C, External air 35°C
(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(5) Efficiencies for low temperature Applications (35°C)

ANL - H				290	300	340	400	580	620	650
Electrical data										
Total input currente (cooling)	H	(6)	A	/	/	/	52	68	70	77
Total input currente (heating)	H	(6)	A	/	/	/	51	63	68	74
Maximum current (FLA)	H	(6)	A	/	/	/	65	98	107	116
Starting current (LRA)	H	(6)	A	/	/	/	181	264	264	273
Total input currente (cooling)	HL	(6)	A	37	41	45	54	72	75	83
Total input currente (heating)	HL	(6)	A	34	36	42	51	63	68	74
Maximum current (FLA)	HL	(6)	A	44	47	54	65	98	107	116
Starting current (LRA)	HL	(6)	A	126	128	160	181	264	264	273
Scroll Compressor										
Compressors / Circuit			n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant			Type				R410A			
Heat exchanger system side										
Exchanger			Type/n°				Plate/1			
hydraulic connections (In/Out)			Ø				2"½			
Axial fans										
Fan			Type/n°	Inverter/4	Inverter/4	Inverter/6	std/2	std/2	std/2	std/2
Air flow rate (cooling)	H		m³/h	/	/	/	45800	45800	44600	44600
	HL		m³/h	17600	17600	17200	32060	32060	31220	31220
Sound data (cooling mode)										
Sound power level	H		dB(A)	/	/	/	89.4	89.4	89.4	89.4
Sound pressure level	H		dB(A)	/	/	/	57.6	67.6	57.6	57.6
Sound power level	HL		dB(A)	73.4	74.1	74.3	83.4	84.0	84.6	85.2
Sound pressure level	HL		dB(A)	41.7	42.4	42.6	51.5	52.1	52.7	53.4

(6) Unit standar configuration without hydronic kit

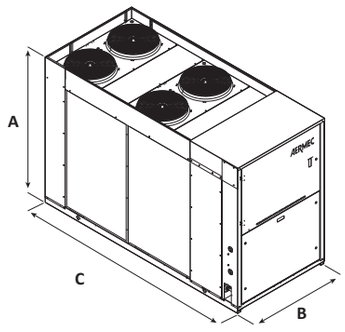
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

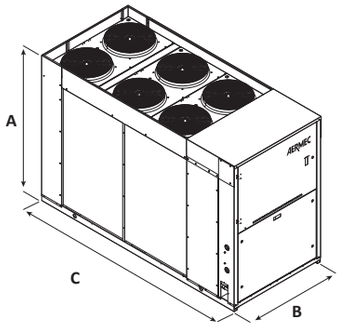
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

ANL-H 290-300



ANL-H 340



Mod. ANL_H		290	300	340	400	580	620	650
A	mm	1605	1605	1605	1875	1875	1875	1875
B	mm	1100	1100	1100	1100	1100	1100	1100
C	mm	2450	2450	2450	2950	3200	3200	3200
Weight "00"	Kg	655	660	684	808	902	1008	1053
Weight operation "00"	Kg	673	679	703	832	926	1033	1078

Cod.: SANLH290_650UY.04/1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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NRK
0090/0150
heat pump

Reversible heat pump
Air/Water for outside installations
Axial fans and scroll compressors
Cooling capacity 18 - 31 kW
Heating capacity 21 - 35 kW

HFC Refrigerant R410A

Variable Multi Flow VMF

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

AERMEC participates in the EUROVENT program: LCP
The products concerned appear on the site www.eurovent-certification.com



- **MAXIMUM PROCESSED WATER TEMPERATURE 65°C**
- **HEATING OPERATION WITH OUTDOOR TEMPERATURES DOWN TO –20 °C**
- **OPTIMISED FOR HEATING**

Characteristics

Reversible outdoor heating pump for air-conditioning systems where, in addition to cooling rooms, high temperature hot water is required for heating or for the production of hot domestic water.
Special attention was paid to the winter mode, and thanks to the technical solutions adopted the working range was improved with respect to standard heat pumps, guaranteeing a production of hot water up to 65°C and an operation down to an outside air temperature of -20°C.
All the units are equipped with vapour-injection scroll compressors, axial fans, external copper batteries with aluminium fins, and a plate heat exchanger on the side. The base, the structure and the panels are made of steel treated with polyester anti-corrosion paints. Ready for immediate installation, the heat pumps can be supplied with all the components needed for being placed in any type of system, either new or replacing other heat generators, from a system with low temperature floor heating or fan coils, to the more usual radiators.
They are also available with an integrated hydronic unit, thereby simplifying also the final installation because it just need to be connected electrically and hydraulically to be able to start it.

Versions
NRK_H High efficiency

- **Operating limits**

Working at full load up to -20°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 65°C (for more information see the technical documentation)
- Single circuit.
- Vapour-injection scroll compressor with high capacity and low electrical power consumption.
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A.
- Flow switch fitted as standard.
- Water filter.
- High and low pressure transducers fitted as standard.
- Option of an integrated hydronic unit, which contains the main hydraulic components; it is available in various configurations with single pump, low or high head, with or without inertial accumulation.
- Device for low outside air temperatures, with continual regulation of the fans that provides improved operation of the unit under any working conditions, and greater acoustic comfort.
- Electrical resistance antifreeze kit for base.
- Micro-processor adjustment Electronic board (modu control).
  - Control of the outlet water temperature, with the possibility of selecting the control of the inlet water.
  - Summer condensation control with 0-10V modulating signal depending on pressure, compensated according to the outside air temperature.
  - Intelligent defrosting with pressure decay.

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET:** the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.;
- **MULTICONTROL:** allows the simultaneous management of several chillers or heat pumps (up to 4), fitted with our MODUCONTROL, installed in the same system.
For a more complete use, the following accessories are available:
SPLW: System water probe. In most cases the use of the probe supplied with each chiller/heat pump is sufficient. If a single departure/return collector was used, this probe can be used for regulating the standard water temperature of the chillers connected to the collector or for simply reading the data.
SDHW: Domestic hot water probe. To be used when there is an accumulation tank for regulating the temperature of the water produced.
- **VMF-CRP Accessory for managing the SPLW / SDHW probes**
- **PR3**: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
- **VT** Anti-vibration support, to be fitted below the unit base.
- **BSKW:** Electric heater kit with IP44 electrical box, to be installed outside the unit, but

inside the technical compartment in a protected environment: BS6KW400T (6kW, 400V/3) - BS9KW400T (9kW, 400V/3)

Accessories installed in the factory

- **DRE**: Electronic device for reducing the rated starting current.

- **COMPATIBILITY with the VMF SYSTEM**
  For further information about the system see the specific documentation.

Compatibility of accessories

NRK	Vers.	0090	0100	0150
MODU-485BL		•	•	•
AERNET		•	•	•
PR3		•	•	•
MULTICONTROL		•	•	•
SPLW		•	•	•
SDHW		•	•	•
VMF-CRP		•	•	•
BS6KW400T		•	•	•
BS9KW400T		•	•	•
VT (00)		15	15	15
VT (P1-P3)		15	15	15
VT (01-03)		15	15	15
DCPX			standard	
Accessories installed in the factory				
DRE		10	10	15

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field		Description
1,2,3		**NRK**
4,5,6,7		**Size**
		0090-0100-0150
8		**Field of use**
	°	mechanical thermostatic valve (1)
9		**Model**
	H	Heat pump
10		**Heat recuperators**
	°	Without recuperator
	D	With desuperheater(2)
11		**Version**
	°	High efficiency
12		**Coils**
	°	Aluminium
	R	Copper
	S	Tinned copper
	V	Varnished
13		**Fans**
	°	Standard
14		**Power supply**
	°	400V3N/50Hz with thermomagnetic switches
15-16		**Integrated hydronic unit**
	00	Without hydronic unit
	01	Accumulation with 1 low head pump
	03	Accumulation with 1 high head pump
	P1	1 low head pump
	P3	1 high head pump

(1) Temperature of water produced up to 4°C
(2) **The desuperheater can only be used with cold running**

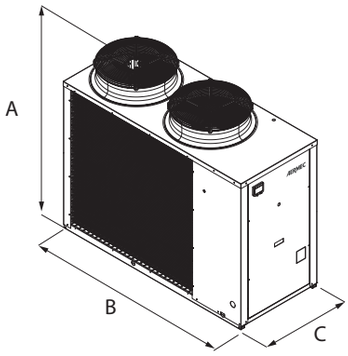
Technical data

NRK - H				0090	0100	0150
		V/ph/Hz			400V/3N/50Hz	
12°C / 7°C	Cooling capacity	(1)	kW	18,37	26,25	30,77
	Total input power	(1)	kW	5,81	8,46	9,92
	EER	(1)		3,16	3,10	3,10
	ESEER	(1)		3,66	3,71	3,72
	Water flow rate	(1)	l/h	3175	4551	5344
	Pressure drop	(1)	kPa	19	39	54
40°C / 45°C	Heating capacity	(2)	kW	20,84	28,82	34,61
	Total input power	(2)	kW	6,16	8,40	10,39
	COP	(2)		3,38	3,43	3,33
	Water flow rate	(2)	l/h	3564	4914	5891
	Pressure drop	(2)	kPa	24	45	65
23°C / 18°C	Cooling capacity	(3)	kW	24,40	34,68	40,65
	Total input power	(3)	kW	6,13	9,04	10,62
	EER	(3)		3,98	3,84	3,83
	Water flow rate	(3)	l/h	4235	6040	7092
	Pressure drop	(3)	kPa	33	67	92
30°C / 35°C	Heating capacity	(4)	kW	20,20	28,09	33,73
	Total input power	(4)	kW	4,57	6,07	7,52
	COP	(4)		4,42	4,63	4,49
	Water flow rate	(4)	l/h	3472	4817	5775
	Pressure drop	(4)	kPa	23	44	64
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW					
	Pdesignh	(5)		21	27	32
	SCOP	(5)		3,70	3,68	3,60
	ηs	(5)		145	144	141
	Efficiency Energy Class	(6)		A+	A+	A+
	Cooling mode for low temperature					
	ηsc		%	131,1	132,6	133,8
	SEER			3,35	3,39	3,42

			0090	0100	0150
Electrical data					
Total input current (cooling)	(6)	A	13,3	17,5	20,4
Total input current (heating)	(6)	A	14,1	17,3	21,3
Maximum current (FLA)	(6)	A	19,1	24,6	29,5
Starting current (LRA)	(6)	A	104	121	143
Scroll Compressor					
Compressors / Circuit		n°	1/1	1/1	1/1
Refrigerant		Type		R410A	
Heat exchanger system side					
Exchanger		Type/n°		Plate/1	
hydraulic connections (In/Out)		Ø	1"1/2	1"1/2	1"1/2
Axial fans					
Fan		n°	2	2	2
Air flow rate (cooling)		m³/h	14200	14200	13700
Sound data (cooling mode)					
Sound power level		dB(A)	78	78	78
Sound pressure level		dB(A)	46,5	46,5	46,5

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C
(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(3) Water evaporator 23°C/18°C, External air 35°C
(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(5) Efficiencies for low temperature Applications (35°C)
(6) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)



NRK		Vers.	0090	0100	0150
A	(mm)		1450	1450	1450
B	(mm)		1750	1750	1750
C	(mm)		750	750	750
Weight when empty	(kg)		289	328	372

Code: SNRK090-0150UY.03/ 1711

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NRK
0280/0700
heat pumps

Reversible heat pumps
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 36÷148kW
Heating capacity 42÷175kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

AERMEC
partecipates in the EUROVENT programme for: LCP Check ongoing validity of certificate online: www.eurovent-certification.com



- **PRODUCTION OF HOT WATER UP TO 65°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO –20°C**
- **OPTIMIZED FOR OPERATION IN HEATING MODE**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT–IN HYDRONIC KIT**

Characteristics

- Reversible heat pumps

Versions

NRK_HA High efficiency version
NRK_HE High efficiency Low noise version

- **Operational limits (1)**
- max. external air temperature 48°C in cooling mode
- Maximum leaving water temperature 65°C in fheating mode
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input, with steam injection
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Low and high pressure transducers
- The built-in hydronic kit alredy contains the main water circuit components; it is available with single or twin in line, for archieving both low or high head, and buffer tank.
- Axial fans for extremely quiet operation. Availables fans high static pressure and equipped with inverter technology, with availble high head
- Units fitted as standard with fan speed controller (DCPX).
- Microprocessor controls.
  - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **MULTICHILLER_PCO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current by about 26%.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
  PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

- **COMPATIBILITY with the VMF SYSTEM For more information on the system refer to the manual.**

Compatibility of accessories

Mod. NRK		Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1		All	•	•	•	•	•	•	•	•	•	•
AERNET		All	•	•	•	•	•	•	•	•	•	•
PGD1		All	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_PCO		All	•	•	•	•	•	•	•	•	•	•
GP	(1)	All	•	•	•	•	•	•	•	•	•	•
VT (00)		All	3	3	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	2(x3)
VT (-P1-P2-P3-P4)			17	17	17	17					22	22
VT (01-02-03-04-05-06-07-08-09-10)		All	17	17	17	17	11	11	11	11	22	22
			13	13	13	13					22	22
Accessories factory fitted only												
DRE		All	201	281	301	331	351	501	551	601	651	701
RIF		All	55	56	54	57	65	58	59	60	61	61
PRM1		All	•	•	•	•	•	•	•	•	•	•

(1) (x2)(x3) the number in brackets indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**

1,2,3 **NRK**

4,5,6,7 **Size**

0200-0280-0300-0330-0350-0500-0550-0600-0650-0700 **(2)**

8 **Field of application**

° Termostatic expansion valve**(3)**

9 **Model**

H Heat pumps

10 **Heat recovery**

° Without recovery

D With Desuperheater

11 **Version**

A High efficiency

E High efficiency in low noise operation

12 **Coil**

° In aluminium

R In copper

S In tinned copper

V In painted aluminium-copper (epoxy paint)

13 **Fans (4)**

° Standard

M Increased

J High static pressure Inverter

14 **Alimentation**

° 400V/3N/50Hz with circuit breakers

15-16 **System integrated hydronic module (5)**

00 without pumps or buffer tank

01 Buffer tank and n° 1 low head static pressure pump

02 Buffer tank and n° 2 low head static pressure pump

03 Buffer tank and n° 1 high head static pressure pump

04 Buffer tank and n° 2 high head static pressure pump

05 n°1 low head static pressure pump and buffer tank (with holes for immersion heaters)

06 n°2 low head static pressure pump and buffer tank (with holes for immersion heaters)

07 n°1 high head static pressure pump and buffer tank (with holes for immersion heaters)

08 n°2 high head static pressure pump and buffer tank (with holes for immersion heaters)

P1 n° 1 low head static pressure pump

P2 n° 2 low head static pressure pump

P3 n° 1 high head static pressure pump

P4 n° 2 high head static pressure pump

(2) The size 0200-0280-0300-0330 only available in low noise version "HL" and equipped with inverter fans as standard
(3) Leaving water temperature down to 4°C
(4) **Standard on/off fans** for sizes from 0350 to 0700
Increased on/off fans, option for sizes from 0200 to 0330
Standard Inverter fans for sizes from 0200 to 0330, without useful static pressure
Inverter fan, option for sizes from 0350 to 0700 with useful static pressure
(5) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps

Technical Data

NRK - HA				0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
	V/ph/Hz							400V/3N/50Hz					
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	75,3	88,6	101,0	117,0	133,0	148,0
	Total input power	(1)	kW	/	/	/	/	25,4	29,6	34,0	41,0	45,0	53,0
	EER	(1)		/	/	/	/	2,96	2,99	2,97	2,85	2,96	2,79
	ESEER	(1)		/	/	/	/	3,30	3,19	3,69	3,42	3,50	3,66
	Water flow rate	(1)	l/h	/	/	/	/	12981	15275	17485	20208	22972	25512
	Pressure drop	(1)	kPa	/	/	/	/	23	26	32	28	34	42
40°C / 45°C	Heating capacity	(2)	kW	/	/	/	/	88,0	104,0	119,0	137,0	156,0	175,0
	Total input power	(2)	kW	/	/	/	/	25,5	30,0	35,0	40,0	46,0	52,0
	COP	(2)		/	/	/	/	3,45	3,47	3,40	3,43	3,39	3,37
	Water flow rate	(2)	l/h	/	/	/	/	15506	18160	20577	23211	26704	29661
	Pressure drop	(2)	kPa	/	/	/	/	32	36	44	37	45	57
	Performance under average climatic conditions (Average) UE n°813/2013 Pdesignh ≤ 400kW												
	Pdesignh	(3)		/	/	/	/	89	106	121	137	157	178
	SCOP	(3)		/	/	/	/	2,88	2,90	3,03	3,03	2,93	2,90
	ηs	(3)		/	/	/	/	112	113	118	118	114	113
	Cooling mode for low temperature												
	ηsc	%		/	/	/	/	134,8	137,6	135,2	133,7	134,6	130,0
	SEER			/	/	/	/	3,45	3,52	3,46	3,42	3,44	3,33

NRK - HE				0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
12°C / 7°C	Cooling capacity	(1)	kW	35,5	50,3	59,3	66,0	74,2	87,2	99,6	114,3	130,5	145,0
	Total input power	(1)	kW	11,7	17,5	19,6	22,4	27,7	32,5	38,1	45,8	49,5	58,1
	EER	(1)		3,03	2,88	3,03	2,95	2,68	2,68	2,61	2,49	2,64	2,50
	ESEER	(1)		3,61	3,52	3,62	3,54	3,47	3,54	3,51	3,42	3,49	3,40
	Water flow rate	(1)	l/h	6128	8666	10231	11374	12796	15028	17167	19705	22503	25022
	Pressure drop	(1)	kPa	18	17	23	19	22	25	30	27	32	41
40°C / 45°C	Heating capacity	(2)	kW	42,31	59,82	69,56	78,40	88,1	104,1	119,1	136,9	156,0	175,0
	Total input power	(2)	kW	12,12	17,13	19,98	22,53	25,5	30,3	34,8	39,9	45,6	51,7
	COP	(2)		3,49	3,49	3,48	3,48	3,45	3,44	3,43	3,43	3,42	3,38
	Water flow rate	(2)	l/h	7320	10357	12034	13571	15239	18013	20606	23684	26993	30260
	Pressure drop	(2)	kPa	25	23	32	27	31	35	44	39	46	59
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW												
	Pdesignh	(3)		44	62	70	/	/	/	/	/	/	/
	SCOP	(3)		3,08	3,03	3,00	/	/	/	/	/	/	/
	ηs	(3)		120	118	117	/	/	/	/	/	/	/
	Efficiency Energy Class			A+	A+	A+	/	/	/	/	/	/	/
	Pdesignh	(4)		42	58	67	80	89	106	121	137	157	178
	SCOP	(4)		3,88	3,75	3,70	3,03	2,88	2,90	3,03	3,03	2,93	2,90
	ηs	(4)		152	147	145	118	112	113	118	118	114	113
	Efficiency Energy Class			A++	A+	A+	/	/	/	/	/	/	/
	Cooling mode for low temperature												
	ηsc	%		133,0	128,8	136,1	132,5	130,9	133,7	130,6	128,7	130,9	127,9
	SEER			3,40	3,30	3,48	3,39	3,35	3,42	3,34	3,29	3,35	3,27

				0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electrical data													
Total input current (cooling)	HA	(5)	A	/	/	/	/	55	61	66	72	86	107
Total input current (heating)	HA	(5)	A	/	/	/	/	54	59	64	70	85	106
Total input current (cooling)	HE	(5)	A	28	38	42	49	60	67	73	80	95	119
Total input current (heating)	HE	(5)	A	24	34	38	44	54	59	64	70	85	106
Maximum current (FLA)	HE	(5)	A	40	49	61	74	75	85	94	114	144	147
Starting current (LRA)	HE	(5)	A	124	146	175	215	216	226	191	228	285	288
Scroll Compressor													
Compressors / Circuit			n°	2/2	2/2	2/2	2/2	2/2	3/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A									
Heat exchanger system side													
Exchanger			Type/n°	Plate/1									
hydraulic connections (In/Out)			Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
Axial fans													
Fans	HA		Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (cooling)	HA		m³/h	/	/	/	/	37000	37000	36500	36500	58000	48000
Fans	HE		Type/n°	Inverter/4	Inverter/6	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (heating)	HE		m³/h	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Sound data (cooling mode)													
Sound power level	HA		dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level	HA		dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level	HE		dB(A)	74	74	75	75	74	74	74	75	77	77
Sound pressure level	HE		dB(A)	42	42	43	43	42	42	42	43	45	45

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for average temperature Applications (55°C)

(4) Efficiencies for low temperature Applications (35°C)

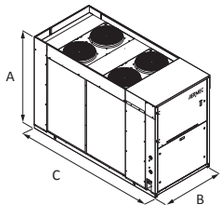
(7) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

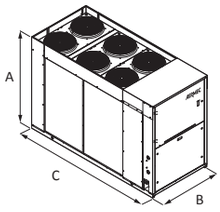
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)

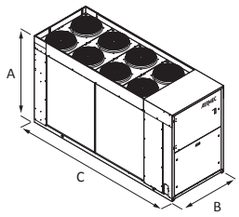
NRK 0200



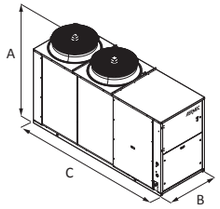
NRK 0280



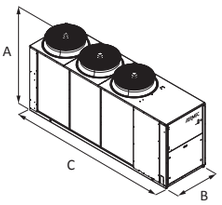
NRK 0300-0330



NRK 0350-0500-0550-0600



NRK 0650-0700



NRK		Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	(mm)	All	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
B	(mm)	All	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	(mm)	All	2700	2700	3250	3250	3330	3330	3330	3330	4330	4330
Empty Weight *	(kg)		804	876	960	967	1118	1264	1325	1367	1562	1597

* Weight standard units without hydronic kit

Cod.: SNRKUY.06/ 1709

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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Tel. 0442633111 - Telefax 044293577
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NRL

0280/0750
cooling only

Air/Water Chillers for external installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 56÷194kW

HFC Refrigerant R410A

Variable Multi Flow®
VMF

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- **COMPACT VERSION**
- **HIGH EFFICIENCIES ALSO AT PARTIAL LOADS**
- **EASY AND FAST INSTALLATION**

Characteristics

Chillers for external installation for chilled water production with high performance scroll compressors and low electric absorption , axial fans, external copper coils with aluminum fins , plate heat exchangers.
In the units (with desuperheater or total recovery) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints .

Versions
NRL_A High efficiency
NRL_E Low noise high efficiency

Operating range: Work at full load up to 46°C external air temperature (for more details please refer to the technical documentation)

- Units with two refrigerant circuits designed to grant the maximum performance at full load, ensuring high efficiencies also at partial loads and giving continuity in case of stop of one of the two circuit.
- Standard Flow-switch, water filter and high and low pressure transducer.
- Possibility of integrated hydronik -kit, which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two high and low head pumps.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **C-TOUCH:** 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER_EVO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **DCPX**: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **GP**: Protective grille. Condenser coil external protection against accidental or hail damage.
- **VT**: anti-vibration support, to be fitted below the sheet metal base of the unit.

Accessories factory fitted only

- **DRE:** Current soft starter device, **Available only with power supply 400V/3N.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe

COMPATIBILITY WITH THE VMF SYSTEM.
For further system information please refer to the specific documentation.

(1) Alle condizioni di portate aria e acqua nominali

Compatibility of accessories

Mod. NRL		Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1			•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•
C-TOUCH			•	•	•	•	•	•	•	•	•	•
TP3		All	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
MULTICHILLER_EVO		All	•	•	•	•	•	•	•	•	•	•
AERNET		All	•	•	•	•	•	•	•	•	•	•
DCPX standard fan	(1)	A	-	-	-	-	64	64	64	64	64	64
	(1)	E	inverter fan				standard	standard	standard	standard	standard	standard
DCPX	(1)	A	-	-	-	-	64	64	64	64	65	65
increased fans (M)	(1)	E	63	63	63	63	standard	standard	standard	standard	standard	standard
GP	(2)	A - E	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)	10 (x3)
VT (00-P1-P4)		A - E	17	17	17	17	11	11	11	11	22	23
VT (01-10)		A - E	13	13	13	13	11	11	11	11	22	23
Accessories factory fitted only												
DRE		400V/3N	281	301	331	351	501	551	601	651	701	751
RIF		Alls	50	50	50	51	52	52	53	53	53	53
PRM1		Alls	•	•	•	•	•	•	•	•	•	•

(1) Standard in the models with desuperheater; In versions low noise; Not necessary fields with fans inverter
(2) (x2)(x3) the number in brackets indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**
1,2,3 **NRL**
4,5,6,7 **Size**
0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 (3)
8 **Expansion valve (4)**
° Standard (leaving water temperature down to 4°C)
Y Low temperature (Low leaving liquid from 0°C down to -6°C)
X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
9 **Model**
° Chillers
C Condensing unit (5)
10 **Heat recovery**
° Without recovery
D With Desuperheater
T With Total Recovery
11 **Versions**
A High efficiency
E High efficiency in low noise operation
12 **Coil**
° In aluminium
R In copper
S In tinned copper
V In painted aluminium-copper (epoxy paint)
13 **Fans** (6)
° Standard
M Increased
J Inverter
14 **Power supply**
° 400V/3N/50Hz with circuit breakers
1 220V/3/50Hz with circuit breakers
15-16 **Hydronic kit** (7)
00 Without hydronic kit
01 n°1 low head pump and buffer tank
02 n°2 low head pump and buffer tank
03 n°1 high head pump and buffer tank
04 n°2 high head pump and buffer tank
05 n°1 low head pump and buffer tank (with holes for immersion heaters)
06 n°2 low head pump and buffer tank (with holes for immersion heaters)
07 n°1 high head pump and buffer tank (with holes for immersion heaters)
08 n°2 high head pump and buffer tank (with holes for immersion heaters)
09 double hydraulic circuit
10 double hydraulic circuit with holes for immersion heater
P1 n°1 low head pump
P2 n°2 low head pump
P3 n°1 high head pump
P4 n°2 high head pump

(3) The sizes 0280-0300-0330-0350 are only low noise E with inverter fans
(4) **Temperature range of termostatich valve**
° Standard
from 4°C to 18°C
Y Thermostatic valve for low temperature
from 4°C to -10 for vers. A (0500 to 0750)
from 4°C to -8 for vers. E (0500 to 0750)
X EEV (Exspansion Electronic Valve)
from 4°C to 18°C (contact head office for lower temperatures)
The option
YD/XD contact Aermec
YT not available
(5) The motocondensing models are not configurable with the option D and T, and with the integrated hydronik-kit on the system's side.
(6) **Fans on/off Standard,** for size from 0500 to 0750
Fans on/off Increased, option available for all size
Fans Inverter, Standard for size from 0280 to 0350, without high static pressure
Fans Inverter, option for size from 0500 to 0750 with high static pressure
(7) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.

Technical Data

NRL - A				280	300	330	350	500	550	600	650	700	750
	V/ph/Hz			400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	97,5	103,4	128,3	142,16	162,02	193,58
	Total power input	(1)	kW	/	/	/	/	30,72	34,79	40,83	45,44	53,28	63,32
	EER	(1)		/	/	/	/	3,17	2,97	3,14	3,13	3,04	3,06
	ESEER	(1)		/	/	/	/	3,68	3,45	4,07	4,04	3,93	3,91
	Cooling Energy Class Eurovent	(1)		/	/	/	/	A	B	A	A	B	B
	Water flow rate	(1)	l/h	/	/	/	/	16830	17861	22154	24559	27993	33489
	Pressure drop	(1)	kPa	/	/	/	/	44	49	54	60	68	88
	Cooling capacity with low leaving water temp (UE n° 2016/2281)												
	SEER			/	/	/	/	3,98	3,87	3,91	3,90	3,87	3,86
	ηsc			/	/	/	/	156,3	151,8	153,3	153,1	151,7	151,3

NRL - E				280	300	330	350	500	550	600	650	700	750
	V/ph/Hz			400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	56,64	64,64	73,63	82,5	89,6	94,5	116,4	128,32	149,16	178,84
	Total power input	(1)	kW	17,16	19,76	22,17	25,57	33,54	37,19	44,89	52,28	57,44	69,16
	EER	(1)		3,30	3,27	3,32	3,23	2,67	2,54	2,59	2,45	2,60	2,59
	ESEER	(1)		3,75	3,72	3,80	3,68	3,65	3,43	3,97	3,95	3,83	3,82
	Cooling Energy Class Eurovent	(1)		A	A	A	A	D	D	D	E	D	D
	Water flow rate	(1)	l/h	9789	11163	12709	14254	15456	16315	20093	22154	25761	30913
	Pressure drop	(1)	kPa	43	39	35	44	37	41	44	49	58	75
	Cooling capacity with low leaving water temp (UE n° 2016/2281)												
	SEER			3,80	3,84	3,82	3,82	3,90	3,83	3,83	3,84	3,84	3,83
	ηsc			149,1	150,7	149,9	149,9	152,9	150,1	150,0	150,5	150,4	150,0

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C

NRL - CA				280	300	330	350	500	550	600	650	700	750
	V/ph/Hz			400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2)	kW	/	/	/	/	101,0	107,0	133,0	147,0	168,0	201,0
	Total power input	(2)	kW	/	/	/	/	30,5	34,5	40,5	45,0	52,8	62,5
	EER	(2)		/	/	/	/	3,31	3,10	3,28	3,27	3,18	3,22

NRL - CE				280	300	330	350	500	550	600	650	700	750
	V/ph/Hz			400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2)	kW	59,0	67,0	76,0	85,0	93,0	98,0	121,0	133,0	155,0	185,0
	Total power input	(2)	kW	17,0	19,6	22,0	25,3	33,4	37,0	44,7	52,1	57,1	68,6
	EER	(2)		3,47	3,42	3,45	3,36	2,78	2,65	2,71	2,55	2,71	2,7

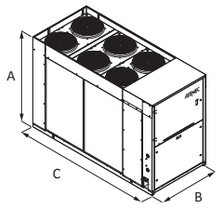
(2) Evaporating temperature 5°C, External air 35°C

				280	300	330	350	500	550	600	650	700	750
Electrical data													
Total input currente (cooling)	A	(3)	A	/	/	/	/	55	60	71	77	90	113
	E	(3)	A	30	34	37	45	60	64	78	89	97	109
Maximum current (FLA)		(3)	A	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)		(3)	A	155	184	190	200	214	220	232	243	261	320
Scroll Compressor													
Compressors / Circuit			n°	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A									
Heat exchanger system side													
Exchanger			Type/n°	Plate/1									
hydraulic connections (In/Out)			Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
Connection of Condensing unit C													
Gas line			Ø	28/28	28/28	28/28	28/28	35/28	35/28	35/35	35/35	42/42	42/42
Liquid line			Ø	15,88/15,88	15,88/15,88	15,88/15,88	18/18	18/18	18/18	22/22	22/22	28/28	28/28
Axial fans													
Fans	A		Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/2	std/3
	E		Type/n°	Inverter/6	Inverter/6	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/2	std/3
Air flow rate (cooling)	A		m³/h	/	/	/	/	34100	34100	32600	32600	50000	49000
	E		m³/h	22000	22000	27000	27000	21100	22200	21800	22800	32500	35300
Sound data (cooling)													
Sound power level	A		dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level	A		dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level	E		dB(A)	74	74	75	76	74	74	74	75	77	77
Sound pressure level	E		dB(A)	42	42	43	44	42	42	42	43	45	45

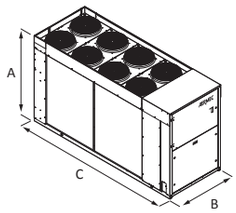
(3) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

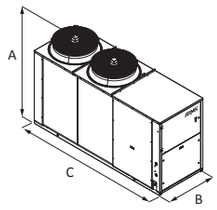
NRL 0280-0300 E



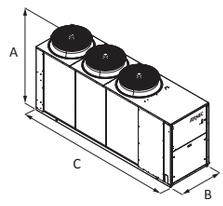
NRL 0330-0350 E



NRL 0500-0550-0600-0650 A/E



NRL 0700 A/E - 0750 /A/E



Mod. NRL		Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	(mm)	Tutte	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	(mm)	Tutte	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	(mm)	A / E / C	2450	2950	2950	2950	3010	3010	3010	3010	4010	4350
Empty weight*	(kg)	A / E	686	751	761	767	955	959	1142	1155	1323	1663

* Weight standard units without hydronic kit

Cod.: SNR0280_0750_co_ce_UY.00/1711

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Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
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www.aermec.com

NRL
0280/0750 heat pumps

Air/Water Reversible heat pumps for external installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 51 - 179kW
Heating capacity 58 - 205kW

HFC Refrigerant R410A

Variable Multi Flow VMF

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- **EUROVENT EFFICIENCY'S CLASS"A" IN HEATING OPERATION**
- **HIGH EFFICIENCIES ALSO AT PARTIAL LOADS**
- **FAST AND EASY INSTALLATION**

Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorbtion scroll compressors , axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.
In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

Version

NRL_H	Standard heat pumps
NRL_HL	Standard heat pumps Low noise version
NRL_HA	High efficiency version
NRL_HE	High efficiency version Low noise version

Operating limits: Work at full load down to -15°C external air temperature in winter season, up to 46°C in summer season. Hot water production up to 55°C (for more details please refer to the technical documentation)

- Units with two refrigerant circuits designed to reach the maximum performance at full load, granting high efficiencies also at partial loads and assuring continuity in case of stop of one of the two circuits.
- Flow switch, water filter and high and low pressure transducer are standard supplied.
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two pumps high and low head.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
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  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.

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- **C-TOUCH:** 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER_EVO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **DCPX**: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **GP**: Protective grille. Condenser coil external protection against accidental or hail damage.
- **VT**: anti-vibration support, to be fitted below the sheet metal base of the unit.

Accessories factory fitted only

- **DRE:** Current soft starter device, **Available only with power supply 400V/3N.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

- **COMPATIBILITY with the VMF SYSTEM For more information on the system refer to the manual.**

Compatibility of accessories

Mod. NRL		Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1		all	•	•	•	•	•	•	•	•	•	•
PGD1		all	•	•	•	•	•	•	•	•	•	•
C-TOUCH		all	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•
AERNET		all	•	•	•	•	•	•	•	•	•	•
DCPX	(1)	H	-	-	-	-	64	64	64	64	64	64
	(1)	HL	inverter fans				standard	standard	standard	standard	standard	standard
	(1)	HA	-	-	-	-	64	64	64	64	65	65
	(1)	HE	inverter fans				standard	standard	standard	standard	standard	standard
DCPX Increased fans (M)	(1)	H	-	-	-	-	-	-	-	-	-	-
	(1)	HL	63	63	63	63	-	-	-	-	-	-
	(1)	HA	-	-	-	-	-	-	-	-	-	-
	(1)	HE	63	63	63	63	-	-	-	-	-	-
GP	(2)	H-HL	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)	10 (x3)
	(2)	HA-HE	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)	10 (x3)
VT (00-P1-P2-P3-P4)		H	17	17	17	17	11	11	11	11	11	23
		HL-HA-HE	17	17	17	17	11	11	11	11	22	23
VT (01...10)		H	13	13	13	13	11	11	11	11	11	23
		HL-HA-HE	13	13	13	13	11	11	11	11	22	23
Accessories factory fitted only												
DRE		400V/3N	281	301	331	351	501	551	601	651	701	751
RIF		all	50	50	50	51	52	52	53	53	53	53
PRM1		all	•	•	•	•	•	•	•	•	•	•

(1) Standard in the models with desuperheater; In the low noise versions; Not necessary fields with ventilarori inverter
(2) (x2)(x3) the number in brackets indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**

1,2,3 **NRL**

4,5,6,7 **Size**

0280-0300-0330-0350-0500-0550-0600-0650-0700-750 (3)

8 **Expansion valve**

- **°** Standard (leaving water temperature down to 4°C)
- **X** Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures

9 **Model**

- **H** Heat pumps

10 **Heat recovery**

- **°** Without recovery
- **D** With Desuperheater (4)

11 **Version**

- **°** Compact
- **L** Compact low noise
- **A** High efficiency
- **E** High efficiency in low noise operation

12 **Coil**

- **°** In aluminium
- **R** In copper
- **S** In tinned copper
- **V** In painted aluminium-copper (epoxy paint)

13 **Fans** (5)

- **°** Standard
- **M** Increased
- **J** Inverter

14 **Power supply**

- **°** 400V/3N/50Hz with circuit breakers
- **1** 220V/3/50Hz with circuit breakers

15-16 **Hydronic kit** (6)

- **00** Without hydronic kit
- **01** n°1 low head pump and buffer tank
- **02** n°2 low head pump and buffer tank
- **03** n°1 high head pump and buffer tank
- **04** n°2 high head pump and buffer tank
- **05** n°1 low head pump and buffer tank (with holes for immersion heaters)
- **06** n°2 low head pump and buffer tank (with holes for immersion heaters)
- **07** n°1 low high pump and buffer tank (with holes for immersion heaters)
- **08** n°2 low high pump and buffer tank (with holes for immersion heaters)
- **09** double hydraulic circuit
- **10** double hydraulic circuit with holes for immersion heaters
- **P1** n°1 low head pump
- **P2** n°2 low head pump
- **P3** n°1 high head pump
- **P4** n°2 high head pump

(3) The size 0280-0300-0330-0350 only available in low noise version "HL/HE" with inverter fans
(4) The desuperheater can be used exclusively in the cold operation
(5) **On / off fan Standard,** standard sizes up 0500 to 0750
On / off fan Increased, option for size up 0280 tu 0350
Fans Inverter, standard sizes from 0280 to 0350, with no static pressure
Fans Inverter, option for sizes from 0500 to 0750 with static pressure
(6) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.

Technical Data

NRL - H				280	300	330	350	500	550	600	650	700	750
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	89	94	114	133	144	175
	Total input power	(1)	kW	/	/	/	/	36,9	41,1	49,8	54,1	63,8	71,2
	EER	(1)		/	/	/	/	2,42	2,30	2,30	2,46	2,26	2,46
	ESEER	(1)		/	/	/	/	3,30	3,19	3,69	3,42	3,50	3,66
	Water flow rate	(1)	l/h	/	/	/	/	15456	16315	19750	23013	24902	30226
	Pressure drop	(1)	kPa	/	/	/	/	46	50	53	58	64	74
40°C / 45°C	Heating capacity	(2)	kW	/	/	/	/	99,6	106,7	129,9	151,0	166,2	202,6
	Total input power	(2)	kW	/	/	/	/	33,8	36,7	44,0	49,0	56,3	66,8
	COP	(2)		/	/	/	/	2,95	2,91	2,95	3,08	2,95	3,03
	Water flow rate	(2)	l/h	/	/	/	/	17209	18426	22424	26075	28682	34940
	Pressure drop	(2)	kPa	/	/	/	/	55	62	67	73	83	96
	Performance under average climatic conditions (Average) UE n°813/2013 Pdesignh ≤ 400kW												
	Pdesignh	(3)		/	/	/	/	85	91	110	127	141	171
	SCOP	(3)		/	/	/	/	3,20	3,20	3,20	3,28	3,20	3,30
	ηs	(3)	%	/	/	/	/	125	125	125	128	125	129
	Cooling mode for low temperature												
	ηsc		%	/	/	/	/	123,6	119,7	136,6	128,9	131,7	138,6
	SEER			/	/	/	/	3,17	3,07	3,49	3,30	3,37	3,54

NRL - HL				280	300	330	350	500	550	600	650	700	750
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	50,7	60,6	65,6	72,6	82,6	89,5	109,4	123,3	139,2	164,0
	Total input power	(1)	kW	20,5	22,9	26,6	31,4	40,1	43,4	52,4	59,0	66,4	78,4
	EER	(1)		2,48	2,65	2,46	2,31	2,06	2,06	2,09	2,09	2,10	2,09
	ESEER	(1)		3,02	3,23	3,02	3,31	3,28	3,18	3,66	3,42	3,48	3,57
	Water flow rate	(1)	l/h	8759	10476	11335	12537	14254	15456	18891	21296	24043	28337
	Pressure drop	(1)	kPa	47	43	51	45	39	45	49	50	60	65
40°C / 45°C	Heating capacity	(2)	kW	58,46	68,47	75,58	82,55	99,6	106,7	129,9	151,0	166,2	202,4
	Total input power	(2)	kW	19,06	21,77	24,88	28,35	33,8	36,7	44,0	49,0	56,3	66,6
	COP	(2)		3,07	3,15	3,04	2,91	2,95	2,91	2,95	3,08	2,95	3,04
	Water flow rate	(2)	l/h	10082	11821	13037	14254	17209	18426	22424	26075	28682	34940
	Pressure drop	(2)	kPa	61	54	66	56	55	62	67	73	83	82
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW												
	Pdesignh	(3)		49	58	64	71	85	91	110	127	141	171
	SCOP	(3)		3,20	3,28	3,20	3,20	3,20	3,20	3,20	3,28	3,20	3,30
	ηs	(3)	%	125	128	125	125	125	125	125	128	125	129
	Efficiency Energy Class			A+	A+	A+	/	/	/	/	/	/	/
	Cooling mode for low temperature												
	ηsc		%	115,3	124,4	117,3	128,3	122,8	136,2	129,4	131,5	138,5	138,6
	SEER			2,96	3,19	3,01	3,28	3,15	3,48	3,31	3,36	3,54	3,54

NRL - HA				280	300	330	350	500	550	600	650	700	750
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	93,6	99,5	121,5	137,4	149,3	179,0
	Total input power	(1)	kW	/	/	/	/	30,8	34,1	41,5	48,5	52,1	64,2
	EER	(1)		/	/	/	/	3,04	2,92	2,92	2,83	2,87	2,79
	ESEER	(1)		/	/	/	/	3,71	3,48	4,13	4,09	3,98	3,98
	Water flow rate	(1)	l/h	/	/	/	/	16143	17174	20952	23700	25761	30913
	Pressure drop	(1)	kPa	/	/	/	/	33	36	36	43	49	64
40°C / 45°C	Heating capacity	(2)	kW	/	/	/	/	103,5	110,6	135,7	152,8	172,0	205,4
	Total input power	(2)	kW	/	/	/	/	31,7	34,4	40,8	45,7	53,1	62,7
	COP	(2)		/	/	/	/	3,26	3,22	3,33	3,34	3,24	3,28
	Water flow rate	(2)	l/h	/	/	/	/	17905	19122	23467	26422	29725	35462
	Pressure drop	(2)	kPa	/	/	/	/	40	44	44	52	64	82
	Performance under average climatic conditions (Average) UE n°813/2013 Pdesignh ≤ 400kW												
	Pdesignh	(3)		/	/	/	/	87	93	114	129	145	173
	SCOP	(3)		/	/	/	/	3,48	3,48	3,58	3,58	3,45	3,53
	ηs	(3)	%	/	/	/	/	136	136	140	140	135	138
	Cooling mode for low temperature												
	ηsc		%	/	/	/	/	140,6	154,5	153,7	150,8	151,0	138,6
	SEER			/	/	/	/	3,59	3,94	3,92	3,85	3,85	3,54

NRL - HE				280	300	330	350	500	550	600	650	700	750
		V/ph/Hz		400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	52,8	61,7	68,7	76,7	89,6	94,6	113,5	127,4	142,3	174,1
	Total input power	(1)	kW	18,1	20,3	23,3	26,9	33,5	36,8	45,5	53,3	58,5	68,9
	EER	(1)		2,92	3,04	2,96	2,85	2,68	2,57	2,50	2,39	2,43	2,52
	ESEER	(1)		3,85	3,77	3,85	2,85	3,67	3,45	4,03	3,99	3,87	3,87
	Water flow rate	(1)	l/h	9102	10648	11850	13224	15456	16315	19578	21983	24559	30054
	Pressure drop	(1)	kPa	20	27	23	27	30	32	31	37	45	60
40°C / 45°C	Heating capacity	(2)	kW	59,25	69,35	76,33	86,40	103,5	110,6	135,7	152,8	172,0	205,4
	Total input power	(2)	kW	17,55	20,65	22,83	26,20	31,7	34,4	40,8	45,7	53,1	62,7
	COP	(2)		3,38	3,36	3,34	3,30	3,26	3,22	3,33	3,34	3,24	3,28
	Water flow rate	(2)	l/h	10256	11994	13211	14950	17905	19122	23467	26422	29725	35462
	Pressure drop	(2)	kPa	25	34	28	34	40	44	44	52	64	82
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW												
	Pdesignh	(3)		50	58	64	73	87	93	114	129	145	173
	SCOP	(3)		3,53	3,50	3,50	3,45	3,48	3,48	3,58	3,58	3,45	3,53
	ηs	(3)	%	138	137	137	135	136	136	140	140	135	138
	Efficiency Energy Class			A+	A+	A+	/	/	/	/	/	/	/
	Cooling mode for low temperature												
	ηsc		%	146,5	145,2	148,9	145,3	138,9	147,8	146,7	144,5	147,4	138,6
	SEER			3,74	3,71	3,80	3,71	3,55	3,77	3,74	3,69	3,76	3,54

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

Technical Data

				280	300	330	350	500	550	600	650	700	750
Electrical data													
Total input current (cooling)	H	(4)	A	/	/	/	/	63,0	67,0	81,0	88,0	100,0	122,0
	HL	(4)	A	36,0	40,0	44,0	51,0	70,0	75,0	90,0	99,0	111,0	132,0
	HA	(4)	A	/	/	/	/	55,0	60,0	71,0	77,0	90,0	113,0
	HE	(4)	A										
Total input current (heating)	H	(4)	A	/	/	/	/	60,0	63,0	76,0	82,0	95,0	113,0
	HL	(4)	A	33,0	38,0	41,0	50,0	60,0	63,0	76,0	82,0	95,0	113,0
	HA	(4)	A	/	/	/	/	55,0	59,0	72,0	82,0	88,0	113,0
	HE	(4)	A										
Maximum current (FLA)		(4)	A	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)		(4)	A	155	184	190	200	214	220	232	243	261	320
Scroll Compressor													
Compressors / Circuit			n°	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A									
Heat exchanger system side													
Exchanger			Type/n°	Plate/1									
hydraulic connections (In/Out)			Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
Axial fans													
Fans	H		Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/2	std/3
	HL		Type/n°	Inverter/4	Inverter/6	Inverter6	Inverter/6	std/2	std/2	std/2	std/2	std/2	std/3
	HA		Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/3	std/3
	HE		Type/n°	Inverter/6	Inverter/8	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (cooling)	H		m³/h	/	/	/	/	39400	39400	39400	37500	37500	50200
	HL		m³/h	14000	20000	20000	20000	28400	28700	28700	27400	28100	41700
	HA		m³/h	/	/	/	/	37000	37000	36500	36500	58000	48000
	HE		m³/h	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Sound data (cooling mode)													
Sound power level	H		dB(A)	/	/	/	/	82	82	82	83	83	85
Sound pressure level	H		dB(A)	/	/	/	/	50	50	50	51	51	53
Sound power level	HL		dB(A)	73	74	74	75	77	77	77	78	78	80
Sound pressure level	HL		dB(A)	41	42	42	43	45	45	45	46	46	48
Sound power level	HA		dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level	HA		dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level	HE		dB(A)	74	75	75	76	74	74	74	75	77	77
Sound pressure level	HE		dB(A)	42	43	43	44	42	42	42	43	45	45

(4) Unit standar configuration without hydronic kit

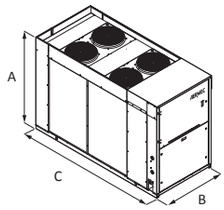
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

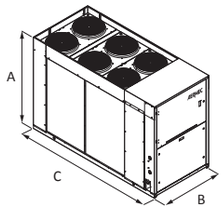
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

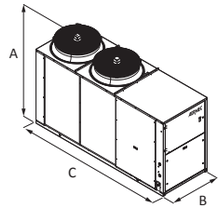
NRL 0280 HL



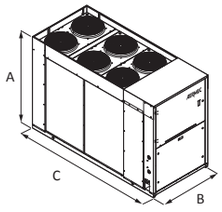
NRL 0300-0330-0350 HL



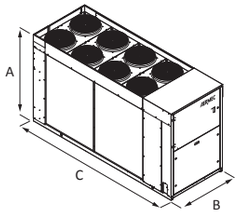
NRL 0500-0550-0600-0650-0700 H/HL



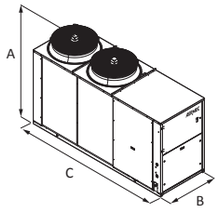
NRL 0280 HE



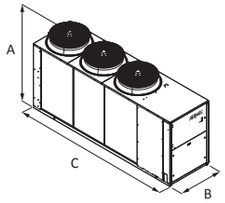
NRL 0300-0330-0350 HE



NRL 0500-0550-0600-0650 HA/HE



NRL 0700 HA/HE
NRL 0750 H/HL/HA/HE



Mod. NRL			Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	(mm)		Alls	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	(mm)		Alls	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	(mm)		H/HL	2450	2450	2450	2450	3010	3010	3010	3010	3010	4350
			HA/HE	2450	2950	2950	2950	3010	3010	3010	3010	4010	4350
Weight empty	kg	(5)	H/HL	713	724	731	740	913	917	1016	1130	1142	1487
			HA/HE	730	795	805	811	1099	1103	1204	1212	1390	1748

(5) Unit standar configuration without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

Cod.: SNRLHUY.18 / 1711

NRV

cooling only

Air/Water chillers for outdoor installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity from 108kW

HFC Refrigerant R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec is participating in the EUROVENT program: LCP The related products can be found on the website www.eurovent-certification.com

Variable Multi Flow

VMF



- **MICRO–CHANNEL COIL**
- **EASY AND QUICK TO INSTALL COMPACT MODULE**
- **RELIABILITY AND MODULARITY**

Features

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water with high efficiency scroll compressors, axial fans, micro-channel coils, and plate exchanger on the system side. In the units with desuperheater, there is also the possibility of producing hot water for free.
The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.
With NRV, it is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum. Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

Versions
NRV_A Standard high efficiency
NRV_E Silenced high efficiency
Operating range: Work up to 46°C of outdoor air temperature at full load.

- NRV is made up of a cooling circuit.
  The careful selection of the components used, the particular configuration and the option of connecting several independent modules and managing them as if they were a single unit allows for maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.
- The electrical panel in every unit and the management logic that allows each module to be operated in synergy with the others ensures continuity even if one or more of the modules freeze up.
  Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.
- **The modules are easy to install and connect to each other** from a hydraulic standpoint, **thanks to the connections with grooved joints.**
- The chiller module uses aluminium micro-channel coils, ensuring very high levels of efficiency. These coils allow less refrigerant to be used compared to traditional copper/aluminium coils.
- **NRV is already equipped with a water filter, differential pressure switch and butterfly check valves**, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.
  In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
  Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- Thermoregulation takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced functioning profile.
  Perfect for night functioning, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode is standard in the unit with J inverter fan and in the E silenced version.
Either a DCPX or inverter fan is necessary for the high efficiency version.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the individual chillers when multiple units are installed in parallel; always ensuring constant flow rate to the evaporators.
- **DCPX:** Condensation temperature control device with continuous modulation of the fan speed via pressure transducer. **Standard supplied in silenced versions and in units with Desuperheater**
- **GPNYB_BACK**: kit with 1 anti-intrusion grid for the short side of the unit.
- **GPNYB_SIDE**: kit with 2 anti-intrusion grids for the long side of the unit.

Accessories mounted in the factory;
- **DRE**: Plate peak current reduction electronic device.
- **RIF**: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KNYB**: Pair of caps with grooved joints assembled on the unit manifold.
- **KREC**: Accessory kit to remote the electric power supply input to the back (see documents).
- **COMPATIBILITY with VMF SYSTEM**
  For further information on system, refer to specific documentation.

NRV	vers.	0550
AER485P1		•
PGD1		•
MULTICHILLER_EVO		•
DCPX	* A	•
GPNYB_BACK		•
GPNYB_SIDE	(1)	•

NRV	vers.	0550
Accessories mounted in the factory;		
DRE	*	•
REF	*	•
KNYB		•
KREC		•

* Contact the head office
(1) Kit made up of two grids

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Description
1,2,3	**NRV**
4,5,6.7	**Size**
	0550
8	**Scope of application**
°	Mechanical Thermostatic Valve (water produced to +4 °C)
X	Electronic Thermostatic Valve
9	**Model**
°	Cooling only
10	**Heat recovery**
°	Without heat recovery
D	With Desuperheater:
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils**
°	Aluminium micro-channel
O	Aluminium micro-channel with cataphoresis treatment
R	Copper - Copper
S	Copper - Thinned
13	**Fans**
°	Standard
J	Inverter (2)
14	**Power supply**
°	400V/3/50Hz with magnet circuit breakers
15-16	**Integrated hydronic kit**
00	Without hydronic kit

(2) The DCPX is unnecessary with the "J" fan

Technical data

NRV - A			**0550**
	V/ph/Hz		400V/3/50Hz
12°C / 7°C	Cooling capacity	kW	108.1
	Input power	kW	34.9
	EER		3.10
	ESEER		4.10
	Water flow rate	l/h	18646
	Head drops	kPa	32
	Cooling capacity with low leaving water temp (UE n° 2016/2281)		
	SEER		4,23
	ηsc	%	166,3

NRV - E			**0550**
	V/ph/Hz		400V/3/50Hz
12°C / 7°C	Cooling capacity	kW	103.5
	Input power	kW	36.3
	EER		2.85
	ESEER		4.06
	Water flow rate	l/h	17862
	Head drops	kPa	30
	Cooling capacity with low leaving water temp (UE n° 2016/2281)		
	SEER		4,17
	ηsc	%	163,6

Data (14511:2013)
Evaporator water 12°C/7°C, Outdoor air 35°C

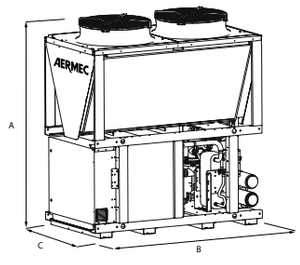
GENERAL DATA			**0550**
Electrical data			
Total input current		A	62
Scroll compressors			
Compressors / Circuit		n°/n°	2/1
Refrigerant gas		type	R410A
System side heat exchanger - plates			
Heat exchanger		no.	1
Axial fans			
Fans		no.	2
Air flow rate in cooling mode	A	m³/h	32000
	E	m³/h	24000
Sound data			
Sound power level	A	dB(A)	85
Sound pressure level		dB(A)	53
Sound power level	E	dB(A)	82
Sound pressure level		dB(A)	50

Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with what is requested by Eurovent certification.
Sound pressure (cold functioning) Sound pressure measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Dimensions and weights

NRV			**Vers.**	**0550**
A	(mm)	A	all	2480
B	(mm)	B	all	2200
Depth	(mm)	C	all	1190
Weight	(kg)		all	1105

* Weight of the standard unit without acessories



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Code: SNRVUY.02 / 1801

AERMEC

NEW

NRB

0282/0754 cooling only

HFC Refrigerant R410A

Air/Water chillers for outdoor installation
Scroll compressors, plate heat exchanger and axial fans
Cooling capacity 54 - 194 **kW**



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec participates in the EUROVENT Program: LCP The products involved appear on the website www.eurovent-certification.com

- **HIGH SEASONAL EFFICIENCY**
- **REDUCED AMOUNT OF REFRIGERANT**
- **COMPACT DIMENSIONS**
- **NIGHT–TIME MODE**

Features

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications, equipped with scroll compressor. **The units are mono circuit and dual-circuit, to ensure maximum efficiency both at full load and at partial load**

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils. **Several versions can be selected, even with quiet operation but all able to ensure high levels of efficiency**.

Versions

NRB_°	Standard
NRB_L	Standard quiet operation
NRB_A	High efficiency
NRB_E	High-efficiency with quiet operation
NRB_U	Super high efficiency
NRB_N	Super high efficiency with quiet operation

Operating range: The unit can work at full load with an outdoor temperature of up to 48°C, depending on the size and version. For more details, refer to the technical documentation / selection software.

- The possibility to use the electronic thermostatic valve offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
- electric heater for standard evaporators
- An optional, integrated hydronic kit containing the main hydraulic components; available with various configurations with storage tank or pumps also inverter with a range of heads.
  Microprocessor adjustment, complete with a keyboard and LCD screen for easily consulting the system and intervening on the unit via a multi-language menu.
  The adjustment system includes the complete management of alarms and the alarm log.
- The timer clock can be used to set operating time bands and a second set-point if required.
- The temperature is controlled via proportional integral logic, according to the water outlet temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX.
  Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load.
- **Night-time mode:** this mode offers a quiet operation profile.
  It's ideal for use during the night for example, as it guarantees less noise whilst still offering optimum efficiency with the highest loads.
  For the Night Mode in non-silent versions, the DCPX accessory (standard in the silenced versions) or the inverter fan "J" is mandatory.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET**: In Master operating mode, allows the remote control of up to six Slave units equipped with RS485 serial connections. Remote control is available on via PC, tablet or smartphone thanks to a Cloud Server connection. The chronological recording of the activities of the connected units (log files) is also available for eventual post analysis.
- **PGD1:** This allows chiller command operations to be implemented from a distance.
- **C-TOUCH:** State-of-the-art 7" touchscreen keypad for easy navigation through the various screens, where you can modify the operating parameters and view the real time trend of certain values in graphic format.
- **MULTICHILLER_EVO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators.
- **DCPX:** Device for the control of the condensing temperature, with continuous modulation of the fans' speed through a pressure transducer. **The accessory is standard in silenced versions and units with desuperheater**
- **VT:** Anti-vibration mounts.

Accessories installed in the factory

- **DRE**: Electronic starting current reduction device.
- **RIF**: Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- **GP**: Anti-intrusion grille.
- **COMPATIBILITY with the VMF SYSTEM**
  For further information about the system see the specific documentation.

Compatibility of accessories

NRB mod. vers.	0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
AER485P1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_ECO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TV	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories installed in the factory															
C-TOUCH	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DRENRB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIF	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Size**
0282-0302-0332-0352-0502-0552-0602-0652-0682-0702-0752
0604-0654-0704-0754

8 **Operating range**
° Mechanical thermostat
Y Double mechanical thermostat for low temperature (processed water temperature -10°C)
X Electronic thermostat (processed water temperature +4°C)
Z Electronic thermostat for low temperature (processed water temperature -10°C)

9 **Model**
° cooling only
C Condensing unit

10 **Heat recovery**
° Without heat recovery
D with desuperheater

11 **Version** (1)
° Compact standard version
L Compact silenced version
A High efficiency
E Silenced high efficiency
U Extra high efficiency
N Silenced extra high efficiency

12 **Coils**
° Copper - aluminium
R Copper - Copper
S Tinned Copper - copper
V Painted copper - aluminium

13 **Fans**
° Standard
M Enlarged
J Inverter

14 **Power supply**
° 400V/3N/50Hz with thermomagnetic switches
1 220V/3/50Hz with circuit breakers (2)

15-16 **Integrated hydronic kit**
00 Without hydronic kit

Kit with pump/s
P1 Single low head pump
P2 Double low head pump
P3 Single high head pump
P4 Double high head pump

Kit with storage tank and pumps
01 Single low head pump + Storage tank
02 Double low head pump + Storage tank
03 Single high head pump + Storage tank
04 Double high head pump + Storage tank

Kit with storage tank and heaters
05 Single low head pump + Storage tank + Heaters
06 Double low head pump + Storage tank + Heaters
07 Single high head pump + Storage tank + Heaters
08 Double high head pump + Storage tank + Heaters

Double loop
09 Double loop

Kit with inverter pump/s
I1 Single low head pump + fixed speed inverter
I2 Double low head pump + fixed speed inverter
I3 Single high head pump + fixed speed inverter
I4 Double high head pump + fixed speed inverter

Kit with storage tank and fixed speed inverter pumps
K1 Single low head pump + Storage tank + inverter
K2 Double low head pump + Storage tank + inverter
K3 Single high head pump + Storage tank + inverter
K4 Double high head pump + Storage tank + inverter

(1) Sizes from 0282 to 0352 are only available in the silenced versions
(2) 220V/3/50Hz only available for sizes 0280-0352 and 0604-0704

Technical data

NRB - °				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	-	-	-	-	98	107	126	135	159	178	195	125	141	170	193
	Absorbed power	(1)	kW	-	-	-	-	33	38	42	47	55	61	72	46	52	58	67
	EER	(1)		-	-	-	-	2,95	2,84	3,02	2,84	2,91	2,93	2,71	2,74	2,70	2,91	2,87
	ESEER	(1)		-	-	-	-	4,16	4,13	4,27	4,16	4,17	4,15	4,17	4,13	4,05	4,02	4,04
	Water flow rate	(1)	l/h	-	-	-	-	16941	18444	21694	23270	27502	30805	33700	21620	24282	29385	33309
	Pressure drops	(1)	kPa	-	-	-	-	39	46	42	49	52	66	78	50	48	71	65
	Sound power	(1)	dB(A)	-	-	-	-	84,5	85,0	85,3	85,5	86,9	87,0	87,7	84,2	84,3	85,9	87,5
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		-	-	-	-	165	163	169	165	165	165	164	154	154	155	158
	SEER			-	-	-	-	4,20	4,15	4,29	4,20	4,20	4,21	4,16	3,93	3,93	3,95	4,02

NRB - L				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	56	64	74	85	96	104	122	131	156	174	189	121	135	166	187
	Absorbed power	(1)	kW	20	22	25	30	34	39	43	49	56	63	75	48	55	60	69
	EER	(1)		2,83	2,88	2,96	2,88	2,82	2,70	2,85	2,66	2,78	2,78	2,53	2,55	2,45	2,76	2,69
	ESEER			4,37	4,40	4,38	4,32	4,18	4,15	4,28	4,09	4,25	4,13	4,14	4,12	3,93	4,05	3,98
	Water flow rate	(1)	l/h	9734	11090	12722	14734	16583	18007	21114	22592	26871	30010	32685	20937	23230	28645	32255
	Pressure drops	(1)	kPa	37	48	39	52	37	43	40	45	50	62	73	46	44	66	61
	Sound power	(1)	dB(A)	71,8	72,9	73,3	73,9	80,7	81,5	82,1	82,5	83,6	83,8	85,0	76,1	76,5	77,4	83,5
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		164	165	168	167	165	163	168	162	167	164	162	152	149	155	155
	SEER			4,17	4,19	4,29	4,25	4,21	4,14	4,27	4,11	4,24	4,18	4,11	3,88	3,81	3,96	3,96

NRB - A				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	-	-	-	-	104	115	130	140	167	186	207	129	150	176	198
	Absorbed power	(1)	kW	-	-	-	-	31	35	40	45	52	59	70	44	48	57	64
	EER	(1)		-	-	-	-	3,29	3,23	3,22	3,10	3,23	3,15	2,97	2,97	3,15	3,11	3,10
	ESEER	(1)		-	-	-	-	4,33	4,39	4,50	4,43	4,40	4,34	4,41	4,32	4,19	4,23	4,27
	Water flow rate	(1)	l/h	-	-	-	-	17889	19764	22404	24116	28897	32172	35736	22344	25867	30430	34209
	Pressure drops	(1)	kPa	-	-	-	-	30	36	35	40	46	56	60	42	57	55	58
	Sound power	(1)	dB(A)	-	-	-	-	84,5	85,0	85,3	85,5	86,9	87,0	87,7	84,2	85,9	85,9	87,5
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		-	-	-	-	170	171	176	173	173	170	172	156	154	157	159
	SEER			-	-	-	-	4,31	4,35	4,46	4,39	4,40	4,34	4,37	3,97	3,92	4,00	4,06

NRB - E				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	60	68	77	89	100	110	124	132	161	178	195	122	144	168	187
	Absorbed power	(1)	kW	19	21	24	28	33	37	43	48	54	63	75	47	49	60	68
	EER	(1)		3,24	3,22	3,21	3,14	3,08	2,99	2,89	2,74	2,98	2,83	2,61	2,61	2,92	2,81	2,75
	SEER	(1)		4,61	4,74	4,56	4,53	4,35	4,40	4,48	4,32	4,46	4,29	4,35	4,29	4,31	4,24	4,16
	Water flow rate	(1)	l/h	10429	11774	13258	15372	17275	19020	21329	22807	27779	30648	33719	21052	24939	28950	32307
	Pressure drops	(1)	kPa	26	33	30	40	27	33	32	36	42	51	53	36	52	49	52
	Sound power	(1)	dB(A)	72,4	72,9	73,7	73,9	80,7	81,5	82,1	82,5	83,6	83,8	85,0	76,1	77,2	77,4	83,0
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		171	176	173	172	169	170	173	167	174	167	168	152	157	156	154
	SEER			4,35	4,46	4,39	4,38	4,30	4,32	4,40	4,25	4,42	4,26	4,27	3,88	4,00	3,97	3,93

NRB - U				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	-	-	-	92	104	117	132	147	171	191	209	138	153	180	202
	Absorbed power	(1)	kW	-	-	-	27	31	35	39	44	51	59	67	41	46	56	63
	EER	(1)		-	-	-	3,41	3,38	3,39	3,39	3,32	3,38	3,22	3,11	3,33	3,35	3,20	3,20
	SEER	(1)		-	-	-	4,58	4,58	4,71	4,57	4,56	4,66	4,46	4,49	4,39	4,37	4,25	4,31
	Water flow rate	(1)	l/h	-	-	-	15945	17984	20172	22745	25275	29532	32945	36076	23741	26327	31067	34915
	Pressure drops	(1)	kPa	-	-	-	24	30	29	38	36	41	51	61	34	42	48	56
	Sound power	(1)	dB(A)	-	-	-	84,0	84,5	85,0	86,6	86,8	86,9	87,9	88,5	85,8	85,9	87,0	88,5
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		-	-	-	178	178	184	179	179	183	176	175	161	162	159	162
	SEER			-	-	-	4,54	4,53	4,67	4,54	4,56	4,66	4,47	4,46	4,10	4,12	4,05	4,11

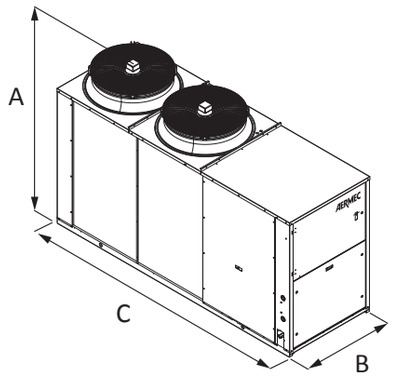
NRB - N				0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
	V/ph/Hz			400V/3/50Hz														
12°C/7°C	Cooling power	(1)	kW	61	69	77	90	101	112	128	142	164	185	200	133	147	174	195
	Absorbed power	(1)	kW	18	21	23	28	32	36	39	45	53	61	70	42	47	58	65
	EER	(1)		3,40	3,35	3,35	3,22	3,15	3,10	3,25	3,13	3,10	3,03	2,86	3,14	3,11	3,02	2,98
	SEER	(1)		4,83	4,83	4,71	4,71	4,58	4,69	4,82	4,67	4,75	4,57	4,59	4,65	4,49	4,44	4,37
	Water flow rate	(1)	l/h	10460	11884	13249	15444	17352	19347	22150	24481	28325	31856	34611	22978	25334	30031	33586
	Pressure drops	(1)	kPa	27	25	31	22	28	27	36	34	38	48	56	32	39	45	52
	Sound power	(1)	dB(A)	72,4	73,3	73,7	79,7	80,7	81,5	83,0	83,4	83,6	84,5	85,5	76,9	77,2	77,9	83,3
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	ηsc	%		178	180	178	181	177	181	186	182	184	178	177	168	165	164	162
	SEER			4,54	4,58	4,52	4,60	4,50	4,60	4,72	4,61	4,68	4,53	4,50	4,29	4,19	4,17	4,13

Data (14511:2013)

(1) Water evaporator 12°C/7°C, Outside air 35°C

Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Dimensions (mm)



NRB			0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0604	0654	0704	0754
A	°	mm	-	-	-	-	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875
	L	mm	1605	1605	1605	1605	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875
	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875
	E	mm	1605	1605	1605	1605	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875
	U	mm	-	-	-	1875	1875	1875	1875	1875	1875	1975	1975	1875	1875	1975	1975
	N	mm	1605	1605	1605	1875	1875	1875	1875	1875	1875	1975	1975	1875	1875	1975	1975
B	°	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	U	mm	-	-	-	1100	1100	1100	1100	1100	1100	1500	1500	1100	1100	1500	1500
	N	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500	1500	1100	1100	1500	1500
C	°	mm	-	-	-	-	3200	3200	3200	3200	4010	4010	4010	3200	3200	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	4010	4010	4010	3200	3200	4010	4010
	A	mm	-	-	-	-	3200	3200	3200	3200	4010	4010	4010	3200	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	4010	4010	4010	3200	4010	4010	4010
	U	mm	-	-	-	3200	3200	3200	4010	4010	4010	5200	5200	4010	4010	5200	5200
	N	mm	2950	2950	2950	3200	3200	3200	4010	4010	4010	5200	5200	4010	4010	5200	5200

Code: SNRB 0282_0754_co_uf.00 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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NRB
0800/3600
only cooling

Air/Water Chillers for Outdoor Installation
Scroll compressors, Plate Heat Exchangers and Axial Fans
Cooling capacity 221 - 1047kW

HFC Refrigerant R410A

Variable Multi Flow VMF

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www.eurovent-certification.com



- **MICROCHANNEL COIL**
- **HP FLOATING: ESEER +7% WITH INVERTER FANS**
- **NIGHT MODE**

Characteristics

Outdoor chillers for the production of chilled water with high efficiency scroll compressors, axial fans, microchannel condenser coils, and plate heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

Versions

NRB_°	Standard
NRB_L	Standard low noise
NRB_A	High efficiency
NRB_E	High efficiency low noise
NRB_U	Very high efficiency
NRB_N	Very high efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/ technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows the use less refrigerant compared to traditional copper coils.
- Electronic thermostatic valve it is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- **Standard inverter fans for sizes and versions (°) from 2000 to 3600, optional for other sizes and versions.**
- Electrical heater for plate heat exchanger
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty**

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
- **KRS: Evaporator trace heating for Shell&tube**
- **GP**: Coil guards.

COMPATIBILITY WITH THE VMF SYSTEM.
For further system information please refer to the specific documentation.

Compatibility of Accessories

Mod. NRB		vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																			
DRENRB			0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF		°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		L	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
KRS	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
XLA	(2)	°	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•
	(2)	L	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
	(2)	A	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
	(2)	E	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	(2)	U	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	(2)	N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation; (2) with the accessory XLA do not use the DCPX

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Sizes** [2]
0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Operational Limits**
- **°** Standard (temperature of water produced up to +4 °C)[3]
- **Y** Low Temperature (temperature of water produced from +4°C a -8°C) [4]
- **X** Electronic Thermostatic Valve (temperature of water produced up to +4 °C)
- **Z** Low Temperature Electronic Thermostatic Valve (temperature of water produced from +4°C a -8°C) [4]

9 **Model**
- **°** Cooling Only
- **C** Motor Condensing Unit [5]

10 **Heat recovery**
- **°** Without Heat Recovery
- **D** With Desuperheater [5]
- **T** With Total Recovery [5]

11 **Version**
- **°** Standard
- **L** Low Noise Standard
- **A** High Efficiency
- **E** Low Noise High Efficency
- **U** Very High Efficiency
- **N** Low noise very high efficiency

12 **Coils**
- **°** Aluminium microchannel
- **O** Painted Aluminium Microchannel
- **R** Copper - copper
- **S** Copper - Tinned

13 **Fans**
- **°** Standard
- **M** Increased
- **J** Inverter

14 **Power supply**
- **°** 400V/3/50Hz magnet circuit breakers

15-16 **Integrated hydronic kit**
- **00** Without hydronic kit

With n°1 pump: (6)
- **PA** Pump A
- **PB** Pump B
- **PC** Pump C
- **PD** Pump D
- **PE** Pump E
- **PF** Pump F
- **PG** Pump G
- **PH** Pump H
- **PI** Pump I
- **PJ** Pump J

With n°2 pump: (6)
- **DA** Pump A and Stand-by pump
- **DB** Pump B and Stand-by pump
- **DC** Pump C and Stand-by pump
- **DD** Pump D and Stand-by pump
- **DE** Pump E and Stand-by pump
- **DF** Pump F and Stand-by pump
- **DG** Pump G and Stand-by pump
- **DH** Pump H and Stand-by pump
- **DI** Pump I and Stand-by pump
- **DJ** Pump J and Stand-by pump

With n° 1 pump and buffer tank: [6][7]
- **AA** Pump A and buffer tank
- **AB** Pump B and buffer tank
- **AC** Pump C and buffer tank
- **AD** Pump D and buffer tank
- **AE** Pump E and buffer tank
- **AF** Pump F and buffer tank
- **AG** Pump G and buffer tank
- **AH** Pump H and buffer tank
- **AI** Pump I and buffer tank
- **AJ** Pump J and buffer tank

With n° 2 pumps and buffer tank: [6][7]
- **BA** Pump A with Stand-by pump and buffer tank
- **BB** Pump B with Stand-by pump and buffer tank
- **BC** Pump C with Stand-by pump and buffer tank
- **BD** Pump D with Stand-by pump and buffer tank
- **BE** Pump E with Stand-by pump and buffer tank
- **BF** Pump F with Stand-by pump and buffer tank
- **BG** Pump G with Stand-by pump and buffer tank
- **BH** Pump H with Stand-by pump and buffer tank
- **BI** Pump I with Stand-by pump and buffer tank
- **BJ** Pump J with Stand-by pump and buffer tank

(2) The availability of models is to be agreed with the Technical Sales
(3) Sizes from 1800÷3600 standard with the electronic thermostatic valve
(4) In the versions A-E-U-N it's possible produce cooling water up to -10°C, for more information contact us
(5) The motor condensing units are not configurable with option Y/X/Z
The models with total recovery "D/T" are not configurable with Y/Z and with vers. "C"
(6) All hydronic kit (from PA to BJ) are not compatible for the following sizes and versions with heat recovery "T":
- 0800 - 0900 - 1000 - 1100 versions "°"
- 0800 - 0900 versions "A"
- 0800 - 0900 versions "L"

(7) All hydraulic kit with pump / and buffer tank (from AA to BJ) are not compatible for all sizes and versions with heat recovery "T"

Technical Data

NRB - °			0800	0900	1000	1100	1200	1400	1600	1800	2000*	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
V/ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1) kW	221	244	270	299	352	404	438	510	559	596	674	719	784	829	878	943	996
	Total power input	(1) kW	73	83	94	110	117	135	155	176	194	217	236	256	270	293	315	329	355
	EER	(1)	3,02	2,93	2,87	2,71	3,00	2,98	2,82	2,90	2,88	2,75	2,85	2,81	2,90	2,83	2,79	2,86	2,80
	ESEER	(1)	4,16	4,07	4,00	3,84	4,14	4,12	3,96	4,04	4,02	3,88	3,98	3,94	4,04	3,97	3,92	4,00	3,93
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	38160	42120	46550	51620	60800	69720	75600	88010	96580	103000	116350	124240	135450	142970	151500	162790	171800
	Pressure drop	(1) kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,09	4,00	3,98	3,89	4,22	4,25	4,13	4,12	4,17	4,11	4,14	4,14	4,23	4,16	4,13	4,19	4,12
	ηsc	%	160,5	156,9	156,0	152,7	165,7	167,1	162,0	161,9	163,7	161,2	162,5	162,7	166,0	163,2	162,1	164,7	161,8

* Units with Inverter fans

NRB - L			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	217	237	272	307	343	390	438	497	554	607	665	726	769	833	885	950	1002
	Total power input	(1) kW	73	86	92	107	123	139	152	173	192	214	234	247	270	285	307	323	348
	EER	(1)	2,97	2,76	2,96	2,86	2,8	2,81	2,88	2,87	2,89	2,84	2,84	2,94	2,85	2,93	2,88	2,94	2,88
	ESEER	(1)	4,23	4,09	4,22	4,15	4,11	4,12	4,17	4,16	4,18	4,14	4,14	4,21	4,14	4,20	4,17	4,21	4,17
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	37360	40940	46960	52990	59200	67320	75460	85760	95600	104710	114690	125170	132530	143570	152590	163960	172820
	Pressure drop	(1) kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,13	3,94	4,15	4,12	4,15	4,15	4,27	4,17	4,14	4,12	4,12	4,28	4,14	4,19	4,18	4,18	4,16
	ηsc	%	162,1	154,6	163,0	161,9	163,0	164,3	167,7	163,6	162,5	161,8	161,9	168,3	162,5	164,6	164,1	164,3	163,5

NRB - A			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	224	252	283	326	361	411	461	518	575	632	696	756	804	865	927	978	1024
	Total power input	(1) kW	71	81	90	105	115	132	148	166	183	203	223	240	256	277	297	314	330
	EER	(1)	3,17	3,11	3,14	3,11	3,13	3,12	3,13	3,12	3,13	3,11	3,12	3,14	3,14	3,12	3,12	3,11	3,10
	ESEER	(1)	4,32	4,23	4,27	4,23	4,25	4,24	4,25	4,24	4,26	4,23	4,24	4,28	4,27	4,25	4,24	4,23	4,21
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	38600	43440	48860	56140	62190	70870	79580	89370	99160	109010	120100	130380	138690	149210	159850	168810	176730
	Pressure drop	(1) kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,28	4,17	4,27	4,28	4,36	4,37	4,43	4,30	4,25	4,20	4,26	4,37	4,29	4,27	4,27	4,22	4,20
	ηsc	%	168,3	163,6	167,6	168,3	171,5	165,9	174,0	168,8	167,0	165,1	167,4	171,6	168,7	167,8	167,9	165,9	164,9

NRB - E			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	219	248	275	321	358	403	454	514	568	636	687	740	793	856	910	963	1017
	Total power input	(1) kW	70	79	89	102	115	130	144	165	183	203	221	237	255	275	291	310	328
	EER	(1)	3,14	3,12	3,10	3,14	3,12	3,10	3,15	3,12	3,10	3,13	3,10	3,13	3,10	3,12	3,13	3,10	3,10
	ESEER	(1)	4,33	4,3	4,27	4,33	4,29	4,27	4,33	4,29	4,27	4,31	4,27	4,31	4,27	4,29	4,31	4,26	4,27
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	37750	42770	47360	55330	61750	69420	78330	88560	97950	109670	118450	127560	136720	147660	156920	166120	175460
	Pressure drop	(1) kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,30	4,20	4,26	4,35	4,40	4,35	4,51	4,33	4,23	4,30	4,31	4,38	4,28	4,30	4,34	4,25	4,28
	ηsc	%	168,8	165,0	167,4	170,9	173,1	167,0	177,2	170,0	166,2	168,9	169,5	172,2	168,0	168,8	170,4	167,0	168,2

NRB - U			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	257	286	329	369	414	466	528	593	654	716	764	814	877	939	997	1047
	Total power input	(1) kW	69	78	87	99	112	126	141	160	179	198	215	229	249	266	282	303	320
	EER	(1)	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,31	3,31	3,31	3,32	3,33	3,27	3,30	3,33	3,30	3,28
	ESEER	(1)	4,37	4,39	4,37	4,39	4,38	4,35	4,39	4,39	4,39	4,39	4,41	4,42	4,33	4,38	4,41	4,37	4,34
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	39190	44360	49350	56750	63670	71380	80370	91100	102250	112740	123390	131760	140330	151290	161950	172070	180640
	Pressure drop	(1) kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,35	4,35	4,38	4,47	4,51	4,50	4,58	4,51	4,42	4,42	4,47	4,56	4,36	4,40	4,47	4,35	4,36
	ηsc	%	171,0	170,8	172,1	175,8	177,5	171,0	180,1	177,2	173,7	173,6	175,9	179,2	171,5	173,0	175,6	171,0	171,4

NRB - N			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	260	284	327	367	412	465	521	578	645	702	748	803	865	925	971	1027
	Total power input	(1) kW	69	79	86	99	112	125	140	158	176	195	213	229	247	263	283	301	319
	EER	(1)	3,32	3,3	3,29	3,32	3,28	3,28	3,31	3,3	3,28	3,31	3,29	3,27	3,26	3,28	3,27	3,22	3,22
	ESEER	(1)	4,48	4,44	4,44	4,48	4,42	4,42	4,47	4,45	4,42	4,47	4,44	4,4	4,38	4,42	4,41	4,33	4,32
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	39210	44840	49030	56430	63300	70980	80240	89790	99680	111130	120920	128990	138510	149130	159500	167560	177270
	Pressure drop	(1) kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,44	4,38	4,44	4,55	4,54	4,56	4,65	4,54	4,43	4,47	4,49	4,49	4,40	4,44	4,43	4,33	4,35
	ηsc	%	174,6	172,2	174,4	178,8	178,6	170,1	182,9	178,4	174,0	175,9	176,4	176,7	172,9	174,4	174,3	170,1	170,9

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

Dimensions (mm)

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																				
Total input current (cooling)	°	(2)	A	128	143	160	186	202	230	261	300	330	367	405	434	459	498	535	563	606
Maximum current (FLA)	°	(2)	A	164	181	197	226	262	291	320	367	408	449	497	529	569	610	650	698	739
Starting current (LRA)	°	(2)	A	353	408	424	477	513	625	654	637	678	719	766	799	838	879	920	967	1008
Total input current (cooling)	L	(2)	A	123	142	154	179	203	232	251	290	319	359	390	413	449	479	513	545	585
Maximum current (FLA)	L		A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)	L		A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	A	(2)	A	124	140	159	182	198	224	252	284	316	349	386	418	442	476	513	542	568
Maximum current (FLA)	A		A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)	A		A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	E	(2)	A	119	135	149	172	193	216	240	275	306	343	373	397	426	460	488	521	549
Maximum current (FLA)	E		A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)	E		A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	U	(2)	A	124	138	153	176	196	218	244	278	312	348	377	401	432	463	494	528	556
Maximum current (FLA)	U		A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)	U		A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	N	(2)	A	118	135	147	167	189	209	234	264	295	329	360	385	412	442	475	506	536
Maximum current (FLA)	N		A	203	219	235	277	307	336	383	437	478	531	572	618	651	704	758	799	840
Starting current (LRA)	N		A	391	446	463	528	557	670	717	706	747	801	842	887	920	974	1027	1068	1109
Scroll Compressor																				
Compressors / Circuit			n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Refrigerant			Type	R410A																
Plate Heat exchanger system side																				
Exchanger			n°	1																
hydraulic connections (In/Out)			Ø	Please refer to technical documentation																
Axial fans																				
Fan	°		n°	4	4	4	4	6	6	6	8	8*	8*	10*	10*	12*	12*	12*	14*	14*
Air flow rate	°		m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
Fan	L		n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate	L		m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
Fan	A		n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate	A		m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
Fan	E		n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	E		m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
Fan	U		n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	U		m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000
Fan	N		n°	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	N		m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
Sound data (cooling)																				
Sound power level	°		dB(A)	88	88	88	88	90	90	90	92	92	93	95	95	96	96	96	96	96
Sound power level	L		dB(A)	83	83	85	85	85	86	86	88	89	90	90	91	91	92	92	93	93
Sound power level	A		dB(A)	88	88	90	90	90	90	91	92	94	94	96	96	96	96	97	97	97
Sound power level	E		dB(A)	85	85	85	86	86	86	88	89	89	91	91	92	92	93	93	93	93
Sound power level	U		dB(A)	90	90	90	91	91	91	93	94	95	96	96	97	97	98	98	98	98
Sound power level	N		dB(A)	86	86	86	88	88	88	88	90	90	91	92	93	93	93	94	94	94

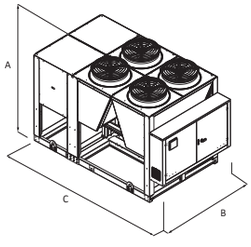
* Units with Inverter fans

(2) Unit standard configuration without hydronic kit

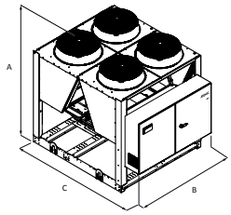
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Dimensions (mm)

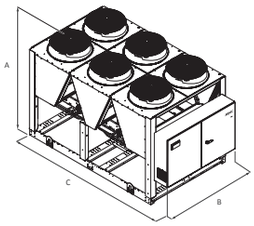
(1) Unit with buffer tank
NRB0800÷1100 ° (1)
NRB0800÷0900 L/A (1)



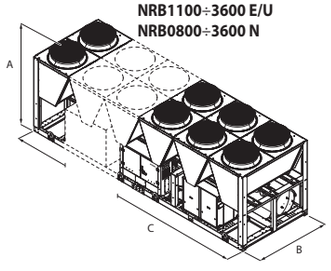
NRB0800÷1100 °
NRB0800÷0900 L/A



NRB1200÷1600 °
NRB1000÷1400 L/A
NRB0800÷1000 E/U



NRB1800÷3600 °
NRB1600÷3600 L/A
NRB1100÷3600 E/U
NRB0800÷3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	Alls	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	Alls	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depht	C	°	mm	2780*	2780*	2780*	2780*	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
Depht	C	L	mm	2780*	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
Depht	C	A	mm	2780*	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
Depht	C	E	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
Depht	C	U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
Depht	C	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Empty weight		°	kg	2240	2280	2350	2390	2880	2930	2960	3580	3660	3740	4270	4500	5150	5390	5470	6000	6150
Empty weight		L	kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390	6520	6600
Empty weight		A	kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390	6520	6600
Empty weight		E	kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140	7220	7300
Empty weight		U	kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140	7220	7300
Empty weight		N	kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540	7620	7700

* Depht units Standard or with pump, for the unit with buffer tank the depht is 3970mm

The weight is the standard unit with the plates heat exchanger and without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

Cod.: SNRB0800_3600P_co_ce_gb / 1711

AERMEC

NRB
0800/3600
only cooling

Air/Water Chillers for Outdoor Installation
Scroll compressors, Shell&tube heat exchangers and axial fans
Cooling capacity 221 - 1047kW

HFC Refrigerant R410A

Variable Multi Flow VMF

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com



- **MICROCHANNEL COIL**
- **HP FLOATING: ESEER +7% WITH INVERTER FANS**
- **NIGHT MODE**

Characteristics

Outdoor chillers for the production of chilled water with high efficiency scroll compressors, axial fans, microchannel condenser coils, and Shell&tube heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

Versions

NRB_°	Standard
NRB_L	Standard low noise
NRB_A	High efficiency
NRB_E	High efficiency low noise
NRB_U	Very high efficiency
NRB_N	Very high efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/ technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows the use less refrigerant compared to traditional copper coils.
- The possibility of using the electronic thermostatic valve brings significant benefits, particular in when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- Standard differential pressure switch
- Electrical heater for plate heat exchanger
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty**

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
- **KRS: Evaporator trace heating for Shell&tube**
- **GP**: Coil guards.

COMPATIBILITY WITH THE VMF SYSTEM.
For further system information please refer to the specific documentation.

Compatibility of Accessories

Mod. NRB		vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																			
DRENRB			0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF		°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		L	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
KRS	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
XLA	(2)	°	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•
	(2)	L	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
	(2)	A	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
	(2)	E	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	(2)	U	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	(2)	N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation; (2) with the accessory XLA do not use the DCPX

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Sizes** (2)
0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Operational Limits**
- **°** Standard (temperature of water produced up to +4 °C)(3)
- **Y** Low Temperature (temperature of water produced from +4°C a -8°C) (4)
- **X** Electronic Thermostatic Valve (temperature of water produced up to +4 °C)
- **Z** Low Temperature Electronic Thermostatic Valve (temperature of water produced from +4°C a -8°C) (4)

9 **Model**
- **°** Cooling Only
- **C** Motor Condensing Unit (5)

10 **Heat recovery**
- **°** Without Heat Recovery
- **D** With Desuperheater (6)
- **T** With Total Recovery (7)

11 **Version**
- **°** Standard
- **L** Low Noise Standard
- **A** High Efficiency
- **E** Low Noise High Efficency
- **U** Very High Efficiency
- **N** Low noise very high efficiency

12 **Coils**
- **°** Aluminium microchannel
- **O** Painted Aluminium Microchannel
- **R** Copper - copper
- **S** Copper - Tinned

13 **Fans**
- **°** Standard (standard for sizes up 0800 to 1800)
- **M** Increased
- **J** Inverter (standard for sizes up 2000 to 3600)

14 **Power supply**
- **°** 400V/3/50Hz magnet circuit breakers

15-16 **Integrated hydronic kit**
- **00** Without hydronic kit

With n°1 pump: (6)
- **PA** Pump A
- **PB** Pump B
- **PC** Pump C
- **PD** Pump D
- **PE** Pump E
- **PF** Pump F
- **PG** Pump G
- **PH** Pump H
- **PI** Pump I
- **PJ** Pump J

With n°2 pump: (6)
- **DA** Pump A and Stand-by pump
- **DB** Pump B and Stand-by pump
- **DC** Pump C and Stand-by pump
- **DD** Pump D and Stand-by pump
- **DE** Pump E and Stand-by pump
- **DF** Pump F and Stand-by pump
- **DG** Pump G and Stand-by pump
- **DH** Pump H and Stand-by pump
- **DI** Pump I and Stand-by pump
- **DJ** Pump J and Stand-by pump

(2) The availability of models is to be agreed with the Technical Sales
(3) Sizes from 1800÷3600 standard with the electronic thermostatic valve
(4) In the versions A-E-U-N it's possible produce cooling water up to -10°C, for more information contact us
(5) The motor condensing units are not configurable with option Y/X/Z
The models with total recovery "D/T" are not configurable with Y/Z and with vers. "C"
(6) The Desuperheater is compatible with all models even in pump versions.
(7) For compatibility with Total Recovery see table below.
For compatibility with the Hydronic Kit, see the table below.

Compatible with Total Recovery

Version		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•
Silenced standard	L	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•
High efficiency	A	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•
Silenced high efficiency	E	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Very high efficiency	U	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Silenced very high efficiency	N	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Compatibility of models with Hydronic Units available with a configurator

Version		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•
Silenced standard	L	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
High efficiency	A	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Silenced high efficiency	E	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Very high efficiency	U	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Silenced very high efficiency	N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

• = it is possible to install pumping units. Standard differential pressure switch. Water filter not supplied

Technical Data

NRB - °			0800	0900	1000	1100	1200	1400	1600	1800	2000*	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
V/ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1) kW	221	244	270	299	352	404	438	510	559	596	674	719	784	829	878	943	996
	Total power input	(1) kW	73	83	94	110	117	135	155	176	194	217	236	256	270	293	315	329	355
	EER	(1)	3,02	2,93	2,87	2,71	3,00	2,98	2,82	2,90	2,88	2,75	2,85	2,81	2,90	2,83	2,79	2,86	2,80
	ESEER	(1)	4,16	4,07	4,00	3,84	4,14	4,12	3,96	4,04	4,02	3,88	3,98	3,94	4,04	3,97	3,92	4,00	3,93
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	38160	42120	46550	51620	60800	69720	75600	88010	96580	103000	116350	124240	135450	142970	151500	162790	171800
	Pressure drop	(1) kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,09	4,00	3,98	3,89	4,22	4,25	4,13	4,12	4,17	4,11	4,14	4,14	4,23	4,16	4,13	4,19	4,12
	ηsc	%	160,5	156,9	156,0	152,7	165,7	167,1	162,0	161,9	163,7	161,2	162,5	162,7	166,0	163,2	162,1	164,7	161,8

* Units with Inverter fans

NRB - L			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	217	237	272	307	343	390	438	497	554	607	665	726	769	833	885	950	1002
	Total power input	(1) kW	73	86	92	107	123	139	152	173	192	214	234	247	270	285	307	323	348
	EER	(1)	2,97	2,76	2,96	2,86	2,8	2,81	2,88	2,87	2,89	2,84	2,84	2,94	2,85	2,93	2,88	2,94	2,88
	ESEER	(1)	4,23	4,09	4,22	4,15	4,11	4,12	4,17	4,16	4,18	4,14	4,14	4,21	4,14	4,20	4,17	4,21	4,17
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	37360	40940	46960	52990	59200	67320	75460	85760	95600	104710	114690	125170	132530	143570	152590	163960	172820
	Pressure drop	(1) kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,13	3,94	4,15	4,12	4,15	4,15	4,27	4,17	4,14	4,12	4,12	4,28	4,14	4,19	4,18	4,18	4,16
	ηsc	%	162,1	154,6	163,0	161,9	163,0	164,3	167,7	163,6	162,5	161,8	161,9	168,3	162,5	164,6	164,1	164,3	163,5

NRB - A			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	224	252	283	326	361	411	461	518	575	632	696	756	804	865	927	978	1024
	Total power input	(1) kW	71	81	90	105	115	132	148	166	183	203	223	240	256	277	297	314	330
	EER	(1)	3,17	3,11	3,14	3,11	3,13	3,12	3,13	3,12	3,13	3,11	3,12	3,14	3,14	3,12	3,12	3,11	3,10
	ESEER	(1)	4,32	4,23	4,27	4,23	4,25	4,24	4,25	4,24	4,26	4,23	4,24	4,28	4,27	4,25	4,24	4,23	4,21
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	38600	43440	48860	56140	62190	70870	79580	89370	99160	109010	120100	130380	138690	149210	159850	168810	176730
	Pressure drop	(1) kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,28	4,17	4,27	4,28	4,36	4,37	4,43	4,30	4,25	4,20	4,26	4,37	4,29	4,27	4,27	4,22	4,20
	ηsc	%	168,3	163,6	167,6	168,3	171,5	165,9	174,0	168,8	167,0	165,1	167,4	171,6	168,7	167,8	167,9	165,9	164,9

NRB - E			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	219	248	275	321	358	403	454	514	568	636	687	740	793	856	910	963	1017
	Total power input	(1) kW	70	79	89	102	115	130	144	165	183	203	221	237	255	275	291	310	328
	EER	(1)	3,14	3,12	3,10	3,14	3,12	3,10	3,15	3,12	3,10	3,13	3,10	3,13	3,10	3,12	3,13	3,10	3,10
	ESEER	(1)	4,33	4,3	4,27	4,33	4,29	4,27	4,33	4,29	4,27	4,31	4,27	4,31	4,27	4,29	4,31	4,26	4,27
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	37750	42770	47360	55330	61750	69420	78330	88560	97950	109670	118450	127560	136720	147660	156920	166120	175460
	Pressure drop	(1) kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,30	4,20	4,26	4,35	4,40	4,35	4,51	4,33	4,23	4,30	4,31	4,38	4,28	4,30	4,34	4,25	4,28
	ηsc	%	168,8	165,0	167,4	170,9	173,1	167,0	177,2	170,0	166,2	168,9	169,5	172,2	168,0	168,8	170,4	167,0	168,2

NRB - U			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	257	286	329	369	414	466	528	593	654	716	764	814	877	939	997	1047
	Total power input	(1) kW	69	78	87	99	112	126	141	160	179	198	215	229	249	266	282	303	320
	EER	(1)	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,31	3,31	3,31	3,32	3,33	3,27	3,30	3,33	3,30	3,28
	ESEER	(1)	4,37	4,39	4,37	4,39	4,38	4,35	4,39	4,39	4,39	4,39	4,41	4,42	4,33	4,38	4,41	4,37	4,34
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	39190	44360	49350	56750	63670	71380	80370	91100	102250	112740	123390	131760	140330	151290	161950	172070	180640
	Pressure drop	(1) kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,35	4,35	4,38	4,47	4,51	4,50	4,58	4,51	4,42	4,42	4,47	4,56	4,36	4,40	4,47	4,35	4,36
	ηsc	%	171,0	170,8	172,1	175,8	177,5	171,0	180,1	177,2	173,7	173,6	175,9	179,2	171,5	173,0	175,6	171,0	171,4

NRB - N			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	260	284	327	367	412	465	521	578	645	702	748	803	865	925	971	1027
	Total power input	(1) kW	69	79	86	99	112	125	140	158	176	195	213	229	247	263	283	301	319
	EER	(1)	3,32	3,3	3,29	3,32	3,28	3,28	3,31	3,3	3,28	3,31	3,29	3,27	3,26	3,28	3,27	3,22	3,22
	ESEER	(1)	4,48	4,44	4,44	4,48	4,42	4,42	4,47	4,45	4,42	4,47	4,44	4,4	4,38	4,42	4,41	4,33	4,32
	ESEER HP floating		ESEER improvements of up to 7%																
	Water flow rate	(1) l/h	39210	44840	49030	56430	63300	70980	80240	89790	99680	111130	120920	128990	138510	149130	159500	167560	177270
	Pressure drop	(1) kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																		
	SEER		4,44	4,38	4,44	4,55	4,54	4,56	4,65	4,54	4,43	4,47	4,49	4,49	4,40	4,44	4,43	4,33	4,35
	ηsc	%	174,6	172,2	174,4	178,8	178,6	170,1	182,9	178,4	174,0	175,9	176,4	176,7	172,9	174,4	174,3	170,1	170,9

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

Dimensions (mm)

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																				
Total input current (cooling)	°	(2)	A	128	143	160	186	202	230	261	300	330	367	405	434	459	498	535	563	606
Maximum current (FLA)	°	(2)	A	164	181	197	226	262	291	320	367	408	449	497	529	569	610	650	698	739
Starting current (LRA)	°	(2)	A	353	408	424	477	513	625	654	637	678	719	766	799	838	879	920	967	1008
Total input current (cooling)	L	(2)	A	123	142	154	179	203	232	251	290	319	359	390	413	449	479	513	545	585
Maximum current (FLA)	L		A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)	L		A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	A	(2)	A	124	140	159	182	198	224	252	284	316	349	386	418	442	476	513	542	568
Maximum current (FLA)	A		A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)	A		A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	E	(2)	A	119	135	149	172	193	216	240	275	306	343	373	397	426	460	488	521	549
Maximum current (FLA)	E		A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)	E		A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	U	(2)	A	124	138	153	176	196	218	244	278	312	348	377	401	432	463	494	528	556
Maximum current (FLA)	U		A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)	U		A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	N	(2)	A	118	135	147	167	189	209	234	264	295	329	360	385	412	442	475	506	536
Maximum current (FLA)	N		A	203	219	235	277	307	336	383	437	478	531	572	618	651	704	758	799	840
Starting current (LRA)	N		A	391	446	463	528	557	670	717	706	747	801	842	887	920	974	1027	1068	1109
Scroll Compressor																				
Compressors / Circuit			n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Refrigerant			Type	R410A																
Shell&Tube Heat exchanger system side																				
Exchanger			n°	1																
hydraulic connections (In/Out)			Ø	Please refer to technical documentation																
Axial fans																				
Fan	°		n°	4	4	4	4	6	6	6	8	8*	8*	10*	10*	12*	12*	12*	14*	14*
Air flow rate	°		m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
Fan	L		n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate	L		m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
Fan	A		n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate	A		m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
Fan	E		n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	E		m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
Fan	U		n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	U		m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000
Fan	N		n°	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	N		m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
Sound data (cooling)																				
Sound power level	°		dB(A)	88	88	88	88	90	90	90	92	92	93	95	95	96	96	96	96	96
Sound power level	L		dB(A)	83	83	85	85	85	86	86	88	89	90	90	91	91	92	92	93	93
Sound power level	A		dB(A)	88	88	90	90	90	90	91	92	94	94	96	96	96	96	97	97	97
Sound power level	E		dB(A)	85	85	85	86	86	86	88	89	89	91	91	92	92	93	93	93	93
Sound power level	U		dB(A)	90	90	90	91	91	91	93	94	95	96	96	97	97	98	98	98	98
Sound power level	N		dB(A)	86	86	86	88	88	88	88	90	90	91	92	93	93	93	94	94	94

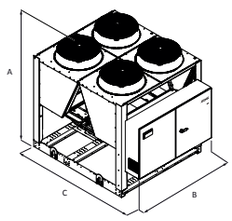
* Units with Inverter fans

(2) Unit standard configuration without hydronic kit

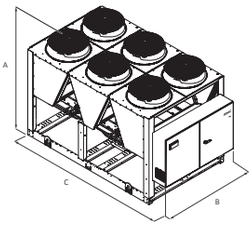
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Dimensions (mm)

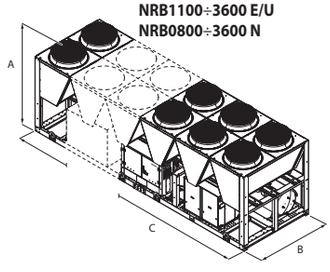
NRB0800÷1100 °
NRB0800÷0900 L/A



NRB1200÷1600 °
NRB1000÷1400 L/A
NRB0800÷1000 E/U



NRB1800÷3600 °
NRB1600÷3600 L/A
NRB1100÷3600 E/U
NRB0800÷3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	Alls	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	Alls	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depht	C	°	mm	2780	2780	2780	2780	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
Depht	C	L	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
Depht	C	A	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
Depht	C	E	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
Depht	C	U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
Depht	C	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

Cod.: SNRB0800-3600_T_co_ce_gb.00 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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NRB
0800/3600
Heat pumps

Reversible heat pumps air/water for outdoor installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 196 - 969kW
Heating capacity 210 - 1009kW

HFC
Refrigerant
R410A

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www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP
the products are present on the site www.eurovent-certification.com

Variable Multi Flow
VMF



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **HP FLOATING: ESEER +7% WITH INVERTER FANS**
- **NIGHT MODE**
- **SHELL AND TUBE HEAT EXCHANGER OPTION**

Characteristics

Outdoor heat pump unit for the production of chilled / hot water, with high efficiency scroll compressors, axial fans, and plate heat exchanger.
In the units (with desuperheater) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

Version

NRB_H	Standard
NRB_HL	Low noise
NRB_HA	High efficiency
NRB_HE	High efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/ technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.
- **All standard NRB fit plate exchanger but we can even supply shell&tube version on demand.** For futher information, please refer to specific literature.
- The possibility of using the electronic thermostatic valve brings significant benefits, particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- Electrical heater for plate heat exchanger.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different available static pressures.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**

- **Night Mode:** it is possible to set a silenced operation profile.
Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.
Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_PCO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty.**

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
- **GP**: Coil guards.

Compatibility of Accessories

Mod. NRBH		vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																			
DRENRB			0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF		H°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HL	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HA	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HE	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

* Accessories to be defined for compatibility
(1) Refer to the technical documentation

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Size** (1)
0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Operational limits**
° Standard (temperature of water produced up to +4 °C) (2)
X Electronic thermostatic valve (temperature of water produced up to +4 °C)

9 **Model**
H Reversible heat pump

10 **Heat recovery**
° Without heat recovery
D With desuperheater (3)

11 **Version**
° Standard
L Low noise standard
A High efficiency
E Low noise high efficency

12 **Coils**
° Aluminium
R Copper - Copper
S Copper - Tinned
V Aluminium painted

13 **Fans**
° Standard
J Inverter

14 **Power supply**
° 400V/3/50Hz with breakers

15-16 **Integrated hydronic kit**
00 Without hydronic kit
With n°1 pump:
PA Pump A
PB Pump B
PC Pump C
PD Pump D
PE Pump E
PF Pump F
PG Pump G
PH Pump H
PI Pump I
PJ Pump J
With n°2 pump:
DA Pump A and Stand-by pump
DB Pump B and Stand-by pump
DC Pump C and Stand-by pump
DD Pump D and Stand-by pump
DE Pump E and Stand-by pump
DF Pump F and Stand-by pump
DG Pump G and Stand-by pump
DH Pump H and Stand-by pump
DI Pump I and Stand-by pump
DJ Pump J and Stand-by pump
With n° 1 pump and buffer tank:
AA Pump A and buffer tank
AB Pump B and buffer tank
AC Pump C and buffer tank
AD Pump D and buffer tank
AE Pump E and buffer tank
AF Pump F and buffer tank
AG Pump G and buffer tank
AH Pump H and buffer tank
AI Pump I and buffer tank
AJ Pump J and buffer tank
With n° 2 pumps and buffer tank:
BA Pump A with Stand-by pump and buffer tank
BB Pump B with Stand-by pump and buffer tank
BC Pump C with Stand-by pump and buffer tank
BD Pump D with Stand-by pump and buffer tank
BE Pump E with Stand-by pump and buffer tank
BF Pump F with Stand-by pump and buffer tank
BG Pump G with Stand-by pump and buffer tank
BH Pump H with Stand-by pump and buffer tank
BI Pump I with Stand-by pump and buffer tank
BJ Pump J with Stand-by pump and buffer tank

(1) The availability of models is to be agreed with the Technical Sales
(2) Sizes from 1800÷3600 standard with the electronic thermostatic valve
(3) The desuperheater can be used exclusively in the cold operation

Technical data

NRB - H				800	900	1000	1100	1200	1400	1600	1800	2000	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
	V/Ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1)	kW	196,0	217,7	251,3	278,7	313,6	353,2	388,2	455,8	500,8	567,5	614,6	652,5	716,4	766,0	803,7	868,0	913,1
	Total power input	(1)	kW	74,2	86,1	91,7	108,0	119,7	141,3	155,3	172,7	193,4	211,0	231,1	252,9	266,3	291,3	315,2	327,6	353,9
	EER	(1)		2,64	2,53	2,74	2,58	2,62	2,5	2,5	2,64	2,59	2,69	2,66	2,58	2,69	2,63	2,55	2,65	2,58
	ESEER	(1)		3,87	3,78	3,94	3,82	3,85	3,75	3,75	3,86	3,83	3,9	3,88	3,82	3,9	3,85	3,79	3,87	3,82
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	33778	37532	43312	48039	54057	60885	66921	78576	86331	97817	105945	112475	123491	132040	138547	149631	157395
	Pressure drop	(1)	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
40°C / 45°C	Heating capacity	(2)	kW	215,5	237,8	275,7	306,6	344,7	367,0	413,6	479,4	528,9	593,4	644,9	690,7	752,2	797,5	838,3	908,9	950,0
	Total input power	(2)	kW	70,2	77,7	89,5	99,9	112,3	121,9	137,0	157,2	174,6	193,9	210,8	227,9	245,0	260,6	275,8	296,1	311,5
	COP	(2)		3,07	3,06	3,08	3,07	3,07	3,01	3,02	3,05	3,03	3,06	3,06	3,03	3,07	3,06	3,04	3,07	3,05
	Water flow rate	(2)	l/h	37317	41173	47731	53076	59681	63532	71605	82997	91576	102738	111652	119575	130228	138071	145133	157358	164479
	Pressure drop	(2)	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37
	Performance under average climatic conditions (average) - Efficiencies for low temperature applications (35°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			203	224	260	289	325	346	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,65	3,65	3,65	3,68	3,65	3,6	/	/	/	/	/	/	/	/	/	/	/
	ηs			143	143	143	144	143	141	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	SEER			148,4	143,5	152,2	149,5	153,2	149,1	152,7	153,7	148,9	161,3	161,8	161,3	161,2	161,9	161,3	161,4	161,8
	ηsc			3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	4,11	4,12	4,11	4,11	4,12	4,11	4,11	4,12

NRB - HL				800	900	1000	1100	1200	1400	1600	1800	2000	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
12°C / 7°C	Cooling capacity	(1)	kW	197,8	227,6	247,4	274,9	300,9	358,7	391,8	453,2	494,4	551,6	592,3	650,4	680,4	747,5	783,1	846,6	881,1
	Total power input	(1)	kW	75,2	78,8	90,0	106,2	123,3	132,9	153,6	169,1	193,9	209,0	234,1	246,4	270,0	285,3	309,5	326,9	352,4
	EER	(1)		2,63	2,89	2,75	2,59	2,44	2,7	2,55	2,68	2,55	2,64	2,53	2,64	2,52	2,62	2,53	2,59	2,5
	ESEER	(1)		3,97	4,18	4,07	3,94	3,83	4,03	3,92	4,02	3,92	3,98	3,9	3,99	3,9	3,97	3,9	3,95	3,88
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	34026	39162	42572	47303	51763	61718	67402	77973	85060	94906	101898	111903	117056	128609	134727	145658	151590
	Pressure drop	(1)	kPa	13,66	18,05	15,38	18,95	13,9	19,76	17,53	23,24	22,94	28,5	17,23	20,92	23,07	23,28	25,46	29,2	31,59
40°C / 45°C	Heating capacity	(2)	kW	210,0	250,6	274,6	305,2	334,5	394,8	431,6	498,2	543,9	610,6	655,1	718,5	758,6	826,4	870,7	939,0	983,1
	Total input power	(2)	kW	67,1	79,6	87,2	98,8	108,3	126,2	136,6	158,2	173,2	195,1	208,6	228,1	243,9	264,9	280,0	300,0	317,1
	COP	(2)		3,13	3,15	3,15	3,09	3,09	3,13	3,16	3,15	3,14	3,13	3,14	3,15	3,11	3,12	3,11	3,13	3,1
	Water flow rate	(2)	l/h	36436	43474	47634	52953	58034	68497	74867	86428	94358	105923	113647	124652	131595	143360	151053	162894	170553
	Pressure drop	(2)	kPa	15,41	21,88	18,94	23,35	17,18	23,94	21,28	28,09	27,76	34,91	21,09	25,53	28,68	28,45	31,47	35,93	39,33
	Performance under average climatic conditions (average) - Efficiencies for low temperature applications (35°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			197	235	258	286	314	370	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,73	3,75	3,75	3,68	3,68	3,73	/	/	/	/	/	/	/	/	/	/	/
	ηs			146	147	147	144	144	146	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	SEER			150,3	157,2	153,9	152,8	149,6	159,0	156,4	158,6	151,7	165,8	166,8	165,5	163,2	165,5	161,9	163,1	162,7
	ηsc			3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	4,22	4,25	4,21	4,16	4,21	4,12	4,15	4,14

* Inverter fans

NRB - HA				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1)	kW	206,0	243,5	266,6	296,6	328,9	385,0	424,8	487,7	537,4	600,2	650,5	707,6	744,2	813,8	857,5	926,2	969,3
	Total power input	(1)	kW	71,8	78,3	88,3	102,3	117,1	129,2	147,0	163,7	184,7	201,4	222,0	237,4	257,5	274,0	295,7	311,8	333,1
	EER	(1)		2,87	3,11	3,02	2,9	2,81	2,98	2,89	2,98	2,91	2,98	2,93	2,98	2,89	2,97	2,9	2,97	2,91
	ESEER	(1)		4,03	4,2	4,14	4,05	3,99	4,11	4,04	4,11	4,06	4,11	4,07	4,11	4,04	4,1	4,05	4,1	4,06
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	35443	41907	45883	51035	56601	66249	73093	83918	92479	103286	111940	121760	128057	140035	147562	159372	166799
	Pressure drop	(1)	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
40°C / 45°C	Heating capacity	(2)	kW	214,5	254,7	279,3	310,9	341,4	401,5	439,5	506,9	554,2	621,3	667,4	731,1	772,4	841,4	887,2	956,3	1002,0
	Total input power	(2)	kW	66,6	79,3	86,7	97,2	106,0	124,7	136,9	157,4	171,6	193,6	207,3	227,1	239,9	261,3	275,5	297,0	312,1
	COP	(2)		3,22	3,21	3,22	3,2	3,22	3,22	3,21	3,22	3,23	3,21	3,22	3,22	3,22	3,22	3,22	3,22	3,21
	Water flow rate	(2)	l/h	37211	44177	48453	53942	59231	69649	76243	87932	96134	107785	115779	126836	134003	145970	153911	165899	173822
	Pressure drop	(2)	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41
	Performance under average climatic conditions (average) - Efficiencies for average temperature applications (55°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			196	233	255	284	312	367	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,03	3,08	3,03	3,08	3,03	3,10	/	/	/	/	/	/	/	/	/	/	/
	ηs			118	120	118	120	118	121	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	SEER			155,4	162,1	160,4	160,6	159,7	166,1	165,6	165,6	160,9	161,5	161,8	163,8	163,1	162,1	163,0	162,8	162,6
	ηsc			3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	4,11	4,12	4,17	4,15	4,13	4,15	4,15	4,14

NRB - HE				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1)	kW	209,4	241,5	264,5	294,1	326,4	377,3	431,8	488,7	539,7	596,7	647,0	698,1	733,8	797,6	839,6	902,3	943,0
	Total power input	(1)	kW	67,3	77,4	85,1	98,0	112,6	125,3	139,3	157,1	177,5	192,5	214,9	231,2	250,4	269,4	289,5	307,9	327,4
	EER	(1)		3,11	3,12	3,11	3	2,9	3,01	3,1	3,11	3,04	3,1	3,01	3,02	2,93	2,96	2,9	2,93	2,88
	ESEER	(1)		4,26	4,27	4,26	4,19	4,13	4,2	4,26	4,27	4,22	4,26	4,19	4,2	4,14	4,17	4,12	4,14	4,11
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	36040	41557	45515	50604	56169	64922	74308	84092	92865	102678	111331	120132	126269	137242	144473	155263	162273
	Pressure drop	(1)	kPa	15,33	20,32	17,57	21,68	16,36	21,86	21,31	27,04	27,35	33,36	20,57	24,11	26,85	26,51	29,27	33,18	36,2
40°C / 45°C	Heating capacity	(2)	kW	223,7	258,3	284,0	317,2	349,7	403,8	459,3	521,7	573,0	635,6	684,9	742,5	785,6	849,7	897,1	962,3	1009,3
	Total input power	(2)	kW	69,3	80,5	87,9	98,5	109,0	126,2	143,1	162,5	176,9	198,0	212,0	229,9	244,7	264,7	279,5	299,8	315,4
	COP	(2)		3,23	3,21	3,23	3,22	3,21	3,2	3,21	3,21	3,24	3,21	3,23	3,23	3,21	3,21	3,21	3,21	3,2
	Water flow rate	(2)	l/h	38802	44817	49268	55028	60671	70046	79685	90498	99408	110262	118815	128807	136291	147408	155631	166942	175100
	Pressure drop	(2)	kPa	17,48	23,25	20,27	25,23	18,78	25,04	24,11	30,81	30,84	37,85	23,05	27,27	30,78	30,09	33,42	37,75	41,47
	Performance under average climatic conditions (average) - Efficiencies for average temperature applications (55°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			204	236	259	290	320	369	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,05	3,08	3,05	3,10	3,03	3,08	/	/	/	/	/	/	/	/	/	/	/
	ηs			119	120	119	121	118	120	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	SEER			163,4	163,0	164,1	164,7	163,4	167,9	172,7	171,2	165,7	166,6	165,6	166,5	163,5	164,2	162,5	161,6	161,4
	ηsc			4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	4,24	4,22	4,24	4,16	4,18	4,14	4,12	4,11

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

Technical data

				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																				
Total input current (cooling)		(3)	A	131	150	163	189	207	242	263	296	331	365	398	437	456	504	545	564	606
Total input current (heating)	H	(3)	A	125	138	158	175	195	212	236	274	304	340	369	397	427	458	484	519	549
Maximum current (FLA)		(3)	A	169	185	210	239	269	298	327	376	417	466	507	549	581	631	672	713	754
Starting current (LRA)		(3)	A	357	412	437	490	519	632	661	645	686	736	776	818	851	900	941	982	1023
Total input current (cooling)		(3)	A	126	133	150	176	203	220	252	280	321	347	390	409	446	473	515	543	585
Total input current (heating)	HL	(3)	A	119	139	152	171	187	216	234	272	299	336	363	394	420	457	484	518	549
Maximum current (FLA)		(3)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(3)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)		(3)	A	127	141	157	179	203	225	254	285	321	352	389	416	448	479	515	546	582
Total input current (heating)	HA	(3)	A	120	142	155	172	187	219	240	277	303	342	368	401	421	460	485	526	550
Maximum current (FLA)		(3)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(3)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)		(3)	A	115	132	144	164	187	208	230	261	296	322	362	387	417	449	483	515	547
Total input current (heating)	HE	(3)	A	122	140	153	170	188	216	244	278	305	341	367	396	420	456	482	517	544
Maximum current (FLA)		(3)	A	177	202	218	248	277	315	352	401	442	492	533	574	607	656	697	753	793
Starting current (LRA)		(3)	A	366	429	446	498	528	649	686	671	712	761	802	843	876	926	967	1022	1063
Scroll Compressor																				
Compressors / Circuit			n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Refrigerant			Type									R410A								
Plate Heat exchanger system side (Option Shell&Tube Heat exchanger)																				
Exchanger			Type/n°									Plate/1								
Axial fans																				
Fans	H		n°	4	4	6	6	6	6	6	8	8	10*	10*	12*	12*	14*	14*	14*	14*
Air flow rate (cooling)			m³/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000
Fans	HL		n°	4	6	6	6	6	8	8	10	10	12*	12*	14*	14*	16*	16*	18*	18*
Air flow rate (cooling)			m³/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000
Fans	HA		n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
Air flow rate (cooling)			m³/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
Fans	HE		n°	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate (cooling)			m³/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
Sound data (cooling mode)																				
Sound power level	H		dB(A)	90	90	92	92	92	92	92	93	93	94	94	95	95	96	96	96	96
Sound pressure level			dB(A)	57	57	59	59	59	59	59	61	61	62	62	62	62	63	63	63	63
Sound power level	HL		dB(A)	83	85	85	85	85	86	86	88	88	90	90	91	91	92	92	92	92
Sound pressure level			dB(A)	50	52	52	52	52	54	54	55	56	57	58	58	58	59	59	59	59
Sound power level	HA		dB(A)	90	92	92	92	92	93	93	94	94	95	95	96	96	97	97	97	97
Sound pressure level			dB(A)	57	59	59	59	59	61	61	62	62	62	62	63	63	64	64	64	64
Sound power level	HE		dB(A)	85	86	86	86	86	87	88	89	90	91	92	92	92	93	93	93	93
Sound pressure level			dB(A)	52	54	54	54	54	55	56	57	57	58	59	59	59	60	60	60	60

(3) Unit standard configuration without hydronic kit

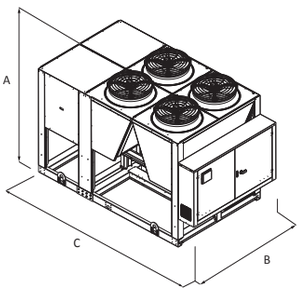
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

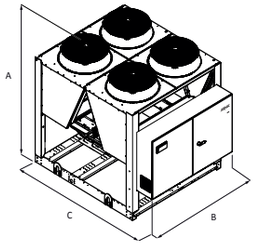
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

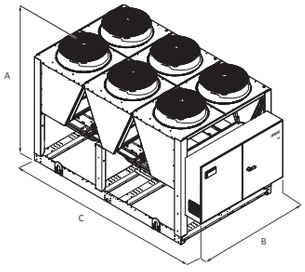
(1) Unit with buffer tank
NRB0800 H/HL/HA
NRB0900 H



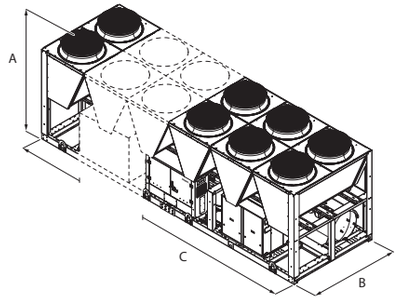
NRB0800 H/HL/HA
NRB0900 H



NRB0800 HE
NRB0900÷1200 HL/HA
NRB1000÷1600 H



NRB0900÷3600 HE
NRB1400÷3600 HL/HA
NRB1800÷3600 H



NRB			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	All	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	All	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	H°	mm	2780*	2780*	3970	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
	HL	mm	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
	HA	mm	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
	HE	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090
Weight	H°	kg	2520	2580	3160	3210	3250	3310	3340	4120	4200	4860	4940	5640	5930	6740	6820	6920	7070
	HL	kg	2550	3130	3200	3240	3320	3970	4040	4700	4820	5340	5620	6410	6660	7340	7420	8040	8120
	HA	kg	2550	3130	3200	3240	3320	3970	4040	4700	4820	5340	5620	6410	6660	7340	7420	8040	8120
	HE	kg	3080	3770	3840	3870	3950	4510	5020	5760	5890	6460	6690	7420	7670	8300	8380	9010	9090

* Depht units Standard or with pump, for the unit with buffer tank the depht is 3970mm

The weight is the standard unit with the plates heat exchanger and without hydronic kit

Cod.: SNRB0800_3600_hp_gb.00 / 1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

AERMEC

NRB
0800/3600
Heat pumps

Reversible heat pumps air/water for outdoor installation
Scroll compressors, Shell&tube heat exchangers and axial fans
Cooling capacity 196 - 969kW
Heating capacity 210 - 1009kW



HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP
the products are present on the site www.eurovent-certification.com

Variable Multi Flow
VMF

- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **HP FLOATING: ESEER +7% WITH INVERTER FANS**
- **NIGHT MODE**

Characteristics

Outdoor heat pump unit for the production of chilled / hot water, with high efficiency scroll compressors, axial fans, and Shell&tube heat exchanger.
In the units (with desuperheater) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

Version
NRB_H Standard
NRB_HL Low noise
NRB_HA High efficiency
NRB_HE High efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/ technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.
- The possibility of using the electronic thermostatic valve brings significant benefits, particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different available static pressures.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**

- **Night Mode:** it is possible to set a silenced operation profile.
Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.
Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty.**

Accessories factory fitted only
- **DRE**: Electronic soft starter which reduces starting current.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
- **KRS: Evaporator trace heating for Shell&tube**
- **GP**: Coil guards.

- **COMPATIBILITY with the VMF SYSTEM**
For more information on the system refer to the manual.

Compatibility of Accessories

Mod. NRBH		vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																			
DRENRB			0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
KRS			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIF		H°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HL	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HA	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
		HE	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

* Accessories to be defined for compatibility
(1) Refer to the technical documentation

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Size** (1)
0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Operational limits**
° Standard (temperature of water produced up to +4 °C) (2)
X Electronic thermostatic valve (temperature of water produced up to +4 °C)

9 **Model**
H Reversible heat pump

10 **Heat recovery**
° Without heat recovery
D With desuperheater (3)

11 **Version**
° Standard
L Low noise standard
A High efficiency
E Low noise high efficency

12 **Coils**
° Aluminium
R Copper - Copper
S Copper - Tinned
V Aluminium painted

13 **Fans**
° Standard
J Inverter

14 **Power supply**
° 400V/3/50Hz with breakers

15-16 **Integrated hydronic kit**
00 Without hydronic kit
With n°1 pump:
PA Pump A
PB Pump B
PC Pump C
PD Pump D
PE Pump E
PF Pump F
PG Pump G
PH Pump H
PI Pump I
PJ Pump J
With n°2 pump:
DA Pump A and Stand-by pump
DB Pump B and Stand-by pump
DC Pump C and Stand-by pump
DD Pump D and Stand-by pump
DE Pump E and Stand-by pump
DF Pump F and Stand-by pump
DG Pump G and Stand-by pump
DH Pump H and Stand-by pump
DI Pump I and Stand-by pump
DJ Pump J and Stand-by pump

(1) The availability of models is to be agreed with the Technical Sales
(2) Sizes from 1800÷3600 standard with the electronic thermostatic valve
(3) The desuperheater can be used exclusively in the cold operation

Compatibility of models with Hydronic Units available with a configurator

Version		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	H°	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Silenced standard	HL	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●
High efficiency	HA	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●
Silenced high efficiency	HE	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
● = it is possible to install pumping units. Standard differential pressure switch. Water filter not supplied																		

Technical data

NRB - H				800	900	1000	1100	1200	1400	1600	1800	2000	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
	V/Ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1)	kW	196,0	217,7	251,3	278,7	313,6	353,2	388,2	455,8	500,8	567,5	614,6	652,5	716,4	766,0	803,7	868,0	913,1
	Total power input	(1)	kW	74,2	86,1	91,7	108,0	119,7	141,3	155,3	172,7	193,4	211,0	231,1	252,9	266,3	291,3	315,2	327,6	353,9
	EER	(1)		2,64	2,53	2,74	2,58	2,62	2,5	2,5	2,64	2,59	2,69	2,66	2,58	2,69	2,63	2,55	2,65	2,58
	ESEER	(1)		3,87	3,78	3,94	3,82	3,85	3,75	3,75	3,86	3,83	3,9	3,88	3,82	3,9	3,85	3,79	3,87	3,82
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	33778	37532	43312	48039	54057	60885	66921	78576	86331	97817	105945	112475	123491	132040	138547	149631	157395
	Pressure drop	(1)	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
40°C / 45°C	Heating capacity	(2)	kW	215,5	237,8	275,7	306,6	344,7	367,0	413,6	479,4	528,9	593,4	644,9	690,7	752,2	797,5	838,3	908,9	950,0
	Total input power	(2)	kW	70,2	77,7	89,5	99,9	112,3	121,9	137,0	157,2	174,6	193,9	210,8	227,9	245,0	260,6	275,8	296,1	311,5
	COP	(2)		3,07	3,06	3,08	3,07	3,07	3,01	3,02	3,05	3,03	3,06	3,06	3,03	3,07	3,06	3,04	3,07	3,05
	Water flow rate	(2)	l/h	37317	41173	47731	53076	59681	63532	71605	82997	91576	102738	111652	119575	130228	138071	145133	157358	164479
	Pressure drop	(2)	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37
	Performance under average climatic conditions (average) - Efficiencies for low temperature applications (35°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			203	224	260	289	325	346	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,65	3,65	3,65	3,68	3,65	3,6	/	/	/	/	/	/	/	/	/	/	/
	ηs			143	143	143	144	143	141	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	ηsc		%	148,4	143,5	152,2	149,5	153,2	149,1	152,7	153,7	148,9	161,3	161,8	161,3	161,2	161,9	161,3	161,4	161,8
	SEER			3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	4,11	4,12	4,11	4,11	4,12	4,11	4,11	4,12

NRB - HL				800	900	1000	1100	1200	1400	1600	1800	2000	2200*	2400*	2600*	2800*	3000*	3200*	3400*	3600*
12°C / 7°C	Cooling capacity	(1)	kW	197,8	227,6	247,4	274,9	300,9	358,7	391,8	453,2	494,4	551,6	592,3	650,4	680,4	747,5	783,1	846,6	881,1
	Total power input	(1)	kW	75,2	78,8	90,0	106,2	123,3	132,9	153,6	169,1	193,9	209,0	234,1	246,4	270,0	285,3	309,5	326,9	352,4
	EER	(1)		2,63	2,89	2,75	2,59	2,44	2,7	2,55	2,68	2,55	2,64	2,53	2,64	2,52	2,62	2,53	2,59	2,5
	ESEER	(1)		3,97	4,18	4,07	3,94	3,83	4,03	3,92	4,02	3,92	3,98	3,9	3,99	3,9	3,97	3,9	3,95	3,88
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	34026	39162	42572	47303	51763	61718	67402	77973	85060	94906	101898	111903	117056	128609	134727	145658	151590
	Pressure drop	(1)	kPa	13,66	18,05	15,38	18,95	13,9	19,76	17,53	23,24	22,94	28,5	17,23	20,92	23,07	23,28	25,46	29,2	31,59
40°C / 45°C	Heating capacity	(2)	kW	210,0	250,6	274,6	305,2	334,5	394,8	431,6	498,2	543,9	610,6	655,1	718,5	758,6	826,4	870,7	939,0	983,1
	Total input power	(2)	kW	67,1	79,6	87,2	98,8	108,3	126,2	136,6	158,2	173,2	195,1	208,6	228,1	243,9	264,9	280,0	300,0	317,1
	COP	(2)		3,13	3,15	3,15	3,09	3,09	3,13	3,16	3,15	3,14	3,13	3,14	3,15	3,11	3,12	3,11	3,13	3,1
	Water flow rate	(2)	l/h	36436	43474	47634	52953	58034	68497	74867	86428	94358	105923	113647	124652	131595	143360	151053	162894	170553
	Pressure drop	(2)	kPa	15,41	21,88	18,94	23,35	17,18	23,94	21,28	28,09	27,76	34,91	21,09	25,53	28,68	28,45	31,47	35,93	39,33
	Performance under average climatic conditions (average) - Efficiencies for low temperature applications (35°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			197	235	258	286	314	370	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,73	3,75	3,75	3,68	3,68	3,73	/	/	/	/	/	/	/	/	/	/	/
	ηs			146	147	147	144	144	146	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	ηsc		%	150,3	157,2	153,9	152,8	149,6	159,0	156,4	158,6	151,7	165,8	166,8	165,5	163,2	165,5	161,9	163,1	162,7
	SEER			3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	4,22	4,25	4,21	4,16	4,21	4,12	4,15	4,14

* Inverter fans

NRB - HA				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1)	kW	206,0	243,5	266,6	296,6	328,9	385,0	424,8	487,7	537,4	600,2	650,5	707,6	744,2	813,8	857,5	926,2	969,3
	Total power input	(1)	kW	71,8	78,3	88,3	102,3	117,1	129,2	147,0	163,7	184,7	201,4	222,0	237,4	257,5	274,0	295,7	311,8	333,1
	EER	(1)		2,87	3,11	3,02	2,9	2,81	2,98	2,89	2,98	2,91	2,98	2,93	2,98	2,89	2,97	2,9	2,97	2,91
	ESEER	(1)		4,03	4,2	4,14	4,05	3,99	4,11	4,04	4,11	4,06	4,11	4,07	4,11	4,04	4,1	4,05	4,1	4,06
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	35443	41907	45883	51035	56601	66249	73093	83918	92479	103286	111940	121760	128057	140035	147562	159372	166799
	Pressure drop	(1)	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
40°C / 45°C	Heating capacity	(2)	kW	214,5	254,7	279,3	310,9	341,4	401,5	439,5	506,9	554,2	621,3	667,4	731,1	772,4	841,4	887,2	956,3	1002,0
	Total input power	(2)	kW	66,6	79,3	86,7	97,2	106,0	124,7	136,9	157,4	171,6	193,6	207,3	227,1	239,9	261,3	275,5	297,0	312,1
	COP	(2)		3,22	3,21	3,22	3,2	3,22	3,22	3,21	3,22	3,23	3,21	3,22	3,22	3,22	3,22	3,22	3,22	3,21
	Water flow rate	(2)	l/h	37211	44177	48453	53942	59231	69649	76243	87932	96134	107785	115779	126836	134003	145970	153911	165899	173822
	Pressure drop	(2)	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41
	Performance under average climatic conditions (average) - Efficiencies for average temperature applications (55°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			196	233	255	284	312	367	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,03	3,08	3,03	3,08	3,03	3,10	/	/	/	/	/	/	/	/	/	/	/
	ηs			118	120	118	120	118	121	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	ηsc		%	155,4	162,1	160,4	160,6	159,7	166,1	165,6	165,6	160,9	161,5	161,8	163,8	163,1	162,1	163,0	162,8	162,6
	SEER			3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	4,11	4,12	4,17	4,15	4,13	4,15	4,15	4,14

NRB - HE				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1)	kW	209,4	241,5	264,5	294,1	326,4	377,3	431,8	488,7	539,7	596,7	647,0	698,1	733,8	797,6	839,6	902,3	943,0
	Total power input	(1)	kW	67,3	77,4	85,1	98,0	112,6	125,3	139,3	157,1	177,5	192,5	214,9	231,2	250,4	269,4	289,5	307,9	327,4
	EER	(1)		3,11	3,12	3,11	3	2,9	3,01	3,1	3,11	3,04	3,1	3,01	3,02	2,93	2,96	2,9	2,93	2,88
	ESEER	(1)		4,26	4,27	4,26	4,19	4,13	4,2	4,26	4,27	4,22	4,26	4,19	4,2	4,14	4,17	4,12	4,14	4,11
	ESEER HP floating			ESEER improvements of up to 7%																
	Water flow rate	(1)	l/h	36040	41557	45515	50604	56169	64922	74308	84092	92865	102678	111331	120132	126269	137242	144473	155263	162273
	Pressure drop	(1)	kPa	15,33	20,32	17,57	21,68	16,36	21,86	21,31	27,04	27,35	33,36	20,57	24,11	26,85	26,51	29,27	33,18	36,2
40°C / 45°C	Heating capacity	(2)	kW	223,7	258,3	284,0	317,2	349,7	403,8	459,3	521,7	573,0	635,6	684,9	742,5	785,6	849,7	897,1	962,3	1009,3
	Total input power	(2)	kW	69,3	80,5	87,9	98,5	109,0	126,2	143,1	162,5	176,9	198,0	212,0	229,9	244,7	264,7	279,5	299,8	315,4
	COP	(2)		3,23	3,21	3,23	3,22	3,21	3,2	3,21	3,21	3,24	3,21	3,23	3,23	3,21	3,21	3,21	3,21	3,2
	Water flow rate	(2)	l/h	38802	44817	49268	55028	60671	70046	79685	90498	99408	110262	118815	128807	136291	147408	155631	166942	175100
	Pressure drop	(2)	kPa	17,48	23,25	20,27	25,23	18,78	25,04	24,11	30,81	30,84	37,85	23,05	27,27	30,78	30,09	33,42	37,75	41,47
	Performance under average climatic conditions (average) - Efficiencies for average temperature applications (55°C) UE n°813/2013 Pdesignh ≤ 400kW																			
	Pdesignh			204	236	259	290	320	369	/	/	/	/	/	/	/	/	/	/	/
	SCOP			3,05	3,08	3,05	3,10	3,03	3,08	/	/	/	/	/	/	/	/	/	/	/
	ηs			119	120	119	121	118	120	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature												**(UE n° 2016/2281)**							
	ηsc		%	163,4	163,0	164,1	164,7	163,4	167,9	172,7	171,2	165,7	166,6	165,6	166,5	163,5	164,2	162,5	161,6	161,4
	SEER			4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	4,24	4,22	4,24	4,16	4,18	4,14	4,12	4,11

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

Technical data

				800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																				
Total input current (cooling)		(3)	A	131	150	163	189	207	242	263	296	331	365	398	437	456	504	545	564	606
Total input current (heating)	H	(3)	A	125	138	158	175	195	212	236	274	304	340	369	397	427	458	484	519	549
Maximum current (FLA)		(3)	A	169	185	210	239	269	298	327	376	417	466	507	549	581	631	672	713	754
Starting current (LRA)		(3)	A	357	412	437	490	519	632	661	645	686	736	776	818	851	900	941	982	1023
Total input current (cooling)		(3)	A	126	133	150	176	203	220	252	280	321	347	390	409	446	473	515	543	585
Total input current (heating)	HL	(3)	A	119	139	152	171	187	216	234	272	299	336	363	394	420	457	484	518	549
Maximum current (FLA)		(3)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(3)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)		(3)	A	127	141	157	179	203	225	254	285	321	352	389	416	448	479	515	546	582
Total input current (heating)	HA	(3)	A	120	142	155	172	187	219	240	277	303	342	368	401	421	460	485	526	550
Maximum current (FLA)		(3)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(3)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)		(3)	A	115	132	144	164	187	208	230	261	296	322	362	387	417	449	483	515	547
Total input current (heating)	HE	(3)	A	122	140	153	170	188	216	244	278	305	341	367	396	420	456	482	517	544
Maximum current (FLA)		(3)	A	177	202	218	248	277	315	352	401	442	492	533	574	607	656	697	753	793
Starting current (LRA)		(3)	A	366	429	446	498	528	649	686	671	712	761	802	843	876	926	967	1022	1063
Scroll Compressor																				
Compressors / Circuit			n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Refrigerant			Type									R410A								
Shell&Tube Heat exchanger system side																				
Exchanger			n°									1								
Axial fans																				
Fans	H		n°	4	4	6	6	6	6	6	8	8	10*	10*	12*	12*	14*	14*	14*	14*
Air flow rate (cooling)			m³/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000
Fans	HL		n°	4	6	6	6	6	8	8	10	10	12*	12*	14*	14*	16*	16*	18*	18*
Air flow rate (cooling)			m³/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000
Fans	HA		n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
Air flow rate (cooling)			m³/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
Fans	HE		n°	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate (cooling)			m³/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
Sound data (cooling mode)																				
Sound power level	H		dB(A)	90	90	92	92	92	92	92	93	93	94	94	95	95	96	96	96	96
Sound pressure level			dB(A)	57	57	59	59	59	59	59	61	61	62	62	62	62	63	63	63	63
Sound power level	HL		dB(A)	83	85	85	85	85	86	86	88	88	90	90	91	91	92	92	92	92
Sound pressure level			dB(A)	50	52	52	52	52	54	54	55	56	57	58	58	58	59	59	59	59
Sound power level	HA		dB(A)	90	92	92	92	92	93	93	94	94	95	95	96	96	97	97	97	97
Sound pressure level			dB(A)	57	59	59	59	59	61	61	62	62	62	62	63	63	64	64	64	64
Sound power level	HE		dB(A)	85	86	86	86	86	87	88	89	90	91	92	92	92	93	93	93	93
Sound pressure level			dB(A)	52	54	54	54	54	55	56	57	57	58	59	59	59	60	60	60	60

(5) Unit standard configuration without hydronic kit

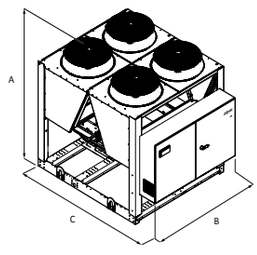
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

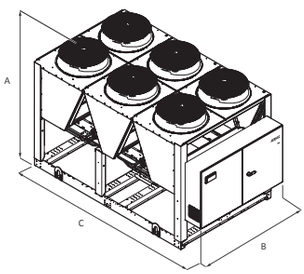
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

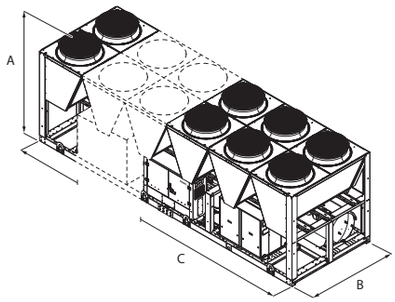
NRB0800 H/HL/HA
NRB0900 H



NRB0800 HE
NRB0900÷1200 HL/HA
NRB1000÷1600 H



NRB0900÷3600 HE
NRB1400÷3600 HL/HA
NRB1800÷3600 H



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	All	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	All	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depht	C	H°	mm	2780	2780	3970	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
		HL	mm	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
		HA	mm	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
		HE	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090

Cod.: SNRB0800-3600_pdc_ft UY.01 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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NRL
0800/1800 heat pump

Air/Water Reversible heat pumps for external installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 183 - 470kW
Heating capacity 228 - 526kW

HFC Refrigerant R410A

Variable Multi Flow VMF

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

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- **HIGH EFFICIENCIES ALSO AT PARTIAL LOADS**
- **FAST AND EASY INSTALLATION**
- **NIHT MODE**

Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorbtion scroll compressors , axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.
In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

Version

NRL_H Standard heat pumps
NRL_HL Standard heat pumps Low noise version
NRL_HA High efficiency version
NRL_HE High efficiency version Low noise version

Operating limits: Work at full load down to -15°C external air temperature in winter season, up to 46°C in summer season. Hot water production up to 55°C (for more details please refer to the technical documentation)

- Units with two refrigerant circuits designed to reach the maximum performance at full load, granting high efficiencies also at partial loads and assuring continuity in case of stop of one of the two circuits.
- Water filter and high and low pressure transducers are standard supplied, The flow switch is standard in all the configurations for compact versions (0800-1200 H/HL), for the other sizes and configurations it is provided only with the hydronic-kit.
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two pumps high and low head.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **MULTICHILLER_EVO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **GP**: Protective grille. Condenser coil external protection against accidental or hail damage.
- **DCPX**: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **AVX**: anti-vibration support, to be fitted below the sheet metal base of the unit.

Accessories factory fitted only

- **DRE:** Current soft starter device, **Available only with power supply 400V/3N.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

- **COMPATIBILITY with the VMF SYSTEM For more information on the system refer to the manual.**

Accessory Compatibility

Mod. NRL		Vers.	0800	0900	1000	1250	1404	1504	1655	1800
AER485P1		Alls	•	•	•	•	•	•	•	•
PGD1		Alls	•	•	•	•	•	•	•	•
C-TOUCH		Alls	•	•	•	•	•	•	•	•
AERNET		Alls	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		Alls	•	•	•	•	•	•	•	•
DCPX	(1)	H	65	65	65	65	66	66	68	68
	(1)	HL	standard	standard	standard	standard	standard	standard	standard	standard
	(1)	HA	66	66	66	68	68	68	68	68
	(1)	HE	standard	standard	standard	standard	standard	standard	standard	standard
GP	(2)	H/HL	10 (x3)	10 (x3)	10 (x4)	10 (x4)	350	350	350	350
		HA/HE	260	260	260	350	350	350	500	500
AVX "00"		H/HL	701	707	713	713	722	722	733	730
		HA/HE	704	710	716	719	725	730	734	737
AVX "01...04"		H/HL	702	708	714	717	723	728	728	728
		HA/HE	705	711	711	720	726	731	735	738
AVX (P1-P2-P3-P4)		H/HL	703	709	715	718	724	729	729	732
		HA/HE	706	712	712	721	727	732	736	736
Accessories factory fitted only										
DRE		Alls	801	901	1001	1251	1404	1504	1655	1801
RIF		H/HL	87	89	91	91	92	92	93	94
		HA/HE	88	90	92	92	92	92	93	94
PRM1		Alls	•	•	•	•	•	•	•	•

(1) DCPX Standard in the models with desuperheater; In the low noise versions; Not necessary fields with ventilarori inverter
(2) (x3)(x4) the numbre in brackets indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Campo **Code**

1,2,3 **NRL**

4,5,6,7 **Size**

0800-0900-1000-1250-1404-1504-1655-1800

8 **Expansion valve:**

- **°** Standard (leaving water temperature down to 4°C)
- **X** Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures

9 **Model**

- **H** Heat pumps

10 **Heat recovery**

- **°** Without recovery
- **D** With desuperheater (3)

11 **Version**

- **°** Standard
- **L** Standard in low noise operation
- **A** High efficiency
- **E** High efficiency in low noise operation

12 **Coil**

- **°** In aluminium
- **R** In copper
- **S** In tinned copper
- **V** In painted aluminium-copper (epoxy paint)

13 **Fans**

- **°** Standard
- **J** Inverter

14 **Power supply**

- **°** 400V/3/50Hz with circuit breakers

15-16 **Hydronic kit** (4)

- **00** Without hydronic kit
- **01** n°1 low head pump and buffer tank
- **02** n°2 low head pump and buffer tank
- **03** n°1 high head pump and buffer tank
- **04** n°2 high head pump and buffer tank
- **05** n°1 low head pump and buffer tank (with holes for immersion heaters)
- **06** n°2 low head pump and buffer tank (with holes for immersion heaters)
- **07** n°1 low high pump and buffer tank (with holes for immersion heaters)
- **08** n°2 low high pump and buffer tank (with holes for immersion heaters)
- **09** double hydraulic circuit
- **10** double hydraulic circuit with immersion heater
- **P1** n°1 low head pump
- **P2** n°2 low head pump
- **P3** n°1 high head pump
- **P4** n°2 high head pump

(3) The desuperheater can be used exclusively in the cold operation
(4) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps.

Technical data

NRL - H				0800	0900	1000	1250	1404	1504	1655	1800
	V/ph/Hz						400V/3/50Hz				
12°C / 7°C	Cooling capacity	(1)	kW	200	221	261	299	332	366	421	452
	Total input power	(1)	kW	82	95	102	121	141	160	168	181
	EER	(1)		2,44	2,33	2,55	2,46	2,35	2,28	2,51	2,50
	ESEER	(1)		3,85	3,66	3,67	3,63	3,50	3,44	3,45	3,53
	Water flow rate	(1)	l/h	34519	38126	44995	51522	57189	63028	72645	77969
	Pressure drop	(1)	kPa	46	45	50	57	40	40	47	46
40°C / 45°C	Heating capacity	(2)	kW	228	257	295	342	386	429	470	505
	Total input power	(2)	kW	76	86	98	113	128	143	157	168
	COP	(2)		2,99	2,98	3,02	3,03	3,02	3,00	2,99	3,00
	Water flow rate	(2)	l/h	39460	44501	50935	59103	66752	74226	81353	87438
	Pressure drop	(2)	kPa	61	62	65	78	54	55	59	58
	Performance under average climatic conditions (Average)										
	Pdesignh	(3)		192	217	248	288	325	361	/	/
	SCOP	(3)		3,40	3,38	3,43	3,43	3,45	3,43	/	/
	ηs	(3)		133	132	134	134	135	134	/	/
	Cooling mode for low temperature										
	ηsc		%	146,4	139,7	140,9	137,0	135,7	133,6	134,5	136,5
	SEER			3,74	3,57	3,60	3,50	3,47	3,42	3,44	3,49

NRL - HL				0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1)	kW	183	199	236	264	301	331	372	396
	Total input power	(1)	kW	91	106	113	137	155	175	188	205
	EER	(1)		2,02	1,88	2,09	1,93	1,94	1,89	1,98	1,93
	ESEER	(1)		3,79	3,66	3,66	3,56	3,42	3,39	3,39	3,37
	Water flow rate	(1)	l/h	31600	34348	40702	45511	51865	57017	64058	68180
	Pressure drop	(1)	kPa	39	37	41	45	33	34	37	36
40°C / 45°C	Heating capacity	(2)	kW	228	257	295	342	386	429	470	505
	Total input power	(2)	kW	76	86	98	113	128	143	157	168
	COP	(2)		2,99	2,98	3,02	3,03	3,02	3,00	2,99	3,00
	Water flow rate	(2)	l/h	39460	44501	50933	59103	66752	74226	81353	87438
	Pressure drop	(2)	kPa	61	62	65	78	54	55	59	58
	Performance under average climatic conditions (Average)										
	Pdesignh	(3)		192	217	248	288	325	361	/	/
	SCOP	(3)		3,40	3,38	3,43	3,43	3,45	3,43	/	/
	ηs	(3)		133	132	134	134	135	134	/	/
	Cooling mode for low temperature										
	ηsc		%	142,9	138,2	139,2	134,5	131,5	130,7	129,4	128,3
	SEER			3,65	3,53	3,56	3,44	3,36	3,34	3,31	3,28

NRL - HA				0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1)	kW	210	238	260	313	350	386	435	470
	Total input power	(1)	kW	74	83	95	110	127	144	152	164
	EER	(1)		2,84	2,86	2,73	2,85	2,76	2,68	2,86	2,87
	ESEER	(1)		4.01	3.90	3.82	3.96	3.80	3.72	3.74	3.71
	Water flow rate	(1)	l/h	36292	41108	44892	54180	60372	66736	75164	81184
	Pressure drop	(1)	kPa	54	56	54	61	48	48	54	54
40°C / 45°C	Heating capacity	(2)	kW	234	264	295	346	390	435	486	526
	Total input power	(2)	kW	75	85	95	112	126	141	155	166
	COP	(2)		3,12	3,12	3,12	3,09	3,10	3,09	3,14	3,17
	Water flow rate	(2)	l/h	40076	45236	50396	59168	66736	74476	83248	89956
	Pressure drop	(2)	kPa	68	68	68	75	58	60	66	66
	Performance under average climatic conditions (Average)										
	Pdesignh	(3)		198	223	248	292	328	367	/	/
	SCOP	(3)		3,53	3,53	3,53	3,50	3,53	3,50	/	/
	ηs	(3)		138	138	138	137	138	137	/	/
	Cooling mode for low temperature										
	ηsc		%	153,1	149,6	146,7	148,9	147,7	144,9	145,2	143,8
	SEER			3,90	3,82	3,74	3,80	3,77	3,70	3,71	3,67

NRL - HE				0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1)	kW	193	212	230	283	318	354	397	424
	Total input power	(1)	kW	82	95	108	123	141	159	169	184
	EER	(1)		2,36	2,23	2,13	2,29	2,25	2,22	2,34	2,31
	ESEER	(1)		3,92	3,87	3.78	3.93	3.77	3.66	3.72	3.74
	Water flow rate	(1)	l/h	33317	36580	39672	48774	54785	60967	68352	73161
	Pressure drop	(1)	kPa	47	45	43	51	40	41	45	44
40°C / 45°C	Heating capacity	(2)	kW	234	265	295	346	390	435	486	526
	Total input power	(2)	kW	75	85	95	112	126	141	155	166
	COP	(2)		3,11	3,13	3,11	3,09	3,10	3,08	3,13	3,17
	Water flow rate	(2)	l/h	40503	45718	50933	59798	67447	75269	84135	90914
	Pressure drop	(2)	kPa	68	69	69	76	58	60	66	66
	Performance under average climatic conditions (Average)										
	Pdesignh	(3)		198	223	248	292	328	367	/	/
	SCOP	(3)		3,53	3,53	3,53	3,50	3,53	3,50	/	/
	ηs	(3)		138	138	138	137	138	137	/	/
	Cooling mode for low temperature										
	ηsc		%	148,3	146,5	143,3	148,7	146,1	141,4	143,6	142,3
	SEER			3,78	3,74	3,66	3,79	3,73	3,61	3,67	3,63

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

Technical data

				0800	0900	1000	1250	1404	1504	1655	1800
Electrical data											
Total input current (cooling)	H	(5)	A	142	166	189	208	249	286	305	319
	HL	(5)	A	153	177	200	226	269	308	328	348
	HA	(5)	A	136	158	180	196	235	273	286	304
	HE	(5)	A	145	169	192	211	251	292	306	324
Total input current (heating)	H	(5)	A	136	156	179	193	227	261	279	290
	HL	(5)	A	136	156	179	193	227	261	279	290
	HA	(5)	A	138	157	177	197	231	265	282	293
	HE	(5)	A	138	157	177	197	231	282	282	293
Maximum current (FLA)	H/HL	(5)	A	173	195	221	265	282	312	349	398
	HA/HE	(5)	A	177	199	221	274	290	320	357	406
Starting current (LRA)	H/HL	(5)	A	348	404	430	533	616	646	683	666
	HA/HE	(5)	A	352	408	430	542	624	654	691	674
Scroll Compressor											
Compressors / Circuit			n°	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2
Refrigerant			Type	R410A							
Heat exchanger system side											
Exchanger			Type/n°	Plate/1							
hydraulic connections (In/Out)			Ø	3"	3"	3"	3"	4"	4"	4"	4"
Axial fans											
Fans	H/HL		n°	3	3	4	4	4	4	6	6
	HA/HE		n°	4	4	4	6	6	6	8	8
Air flow rate (cooling)	H		m³/h	64500	63750	85600	80800	87400	86800	124200	122400
	HL		m³/h	45200	44600	59900	56600	65500	69400	86900	85700
	HA		m³/h	85600	84600	83600	126000	124200	122400	168000	165600
	HE		m³/h	59920	59220	60610	88200	90000	91800	117600	115920
Sound data (cooling mode)											
Sound power level	H		dB(A)	88.5	88.5	90.5	93.5	91.0	90.5	92.0	94.0
Sound pressure level	H		dB(A)	56.5	56.5	58.5	61.5	59.0	58.5	60.0	62.0
Sound power level	HL		dB(A)	85.5	85.5	87.5	90.5	88.0	87.5	89.0	91.0
Sound pressure level	HL		dB(A)	53.5	53.5	55.5	58.5	56.0	55.5	57.0	59.0
Sound power level	HA		dB(A)	88.5	88.5	88.5	91.5	91.0	91.5	92.0	94.0
Sound pressure level	HA		dB(A)	56.5	56.5	56.5	59.5	59.0	58.5	60.0	62.0
Sound power level	HE		dB(A)	83.0	83.0	83.5	86.0	85.5	85.0	86.5	88.5
Sound pressure level	HE		dB(A)	51.0	51.0	51.0	54.0	53.5	53.0	54.5	56.5

(5) Unit standar configuration without hydronic kit

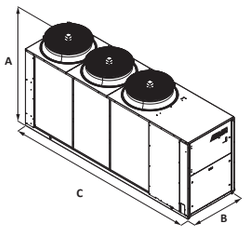
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

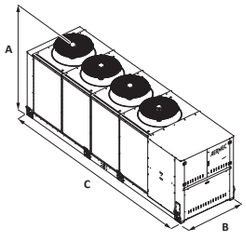
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

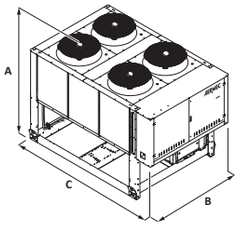
NRL/0800/0900 H-HL



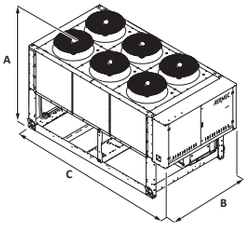
NRL_1000/1250 H-HL



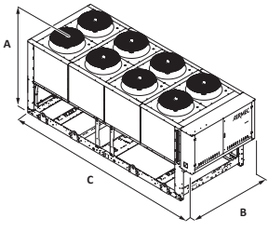
NRL_0800/0900/1000 HA-HE
NRL_1404/1504 H-HL



NRL_1250/1404/1504 HA-HE
1655/1800 H-HL



NRL_1655/1800 HA-HE



Mod. NRL	U.M.		Vers.	800	900	1000	1250	1404	1504	1655	1800
Height	(mm)	A	H/HL	1975	1975	1975	1975	2450	2450	2450	2450
			HA/HE	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	H/HL	1500	1500	1500	1500	2200	2200	2200	2200
			HA/HE	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	H/HL	4355	4355	5355	5355	4250	4250	4250	4250
			HA/HE	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	(kg)		H	1800	1940	2170	2320	2930	3140	3220	3330
			HL	1800	1950	2180	2320	2940	3150	3230	3340
			HA	2150	2300	2460	2750	2990	3190	3680	3800
			HE	2160	2310	2470	2760	3000	3200	3690	3810

Warning: the weights refer to versions without hydronic module integrated

Cod.: SNRLLSHUY.15 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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CL

025/200
cooling only

Air/Water chillers for indoor installation
Scroll compressors, plate heat exchangers and plug fan
Cooling Capacity from 5,82 to 40,34 kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP
the products are present on the site www.eurovent-certification.com

Variable Multi Flow
VMF



- **STANDARD VERSION**
- **VERSION WITH HYDRONIC KIT**
- **FAN PLUG–FAN**

Characteristics

Chillers for indoor installation for chilled water production with high performance scroll compressors and low electric absorption , axial fans, external copper coils with aluminum fins, plate heat exchangers.
In the units (with desuperheater) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints .

Versions available:
CL_° Standard
CL_P With pump
CL_A With pump, and buffer tank

Operational limits
Work at full load up to 42°C external air temperature, (for more details please refer to the technical documentation)

- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors
  Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Anti-freeze electric heater standard for the buffer tank

Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
  For complete control the following accessories are available:
  SPLW: **System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
  VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **AERSET:** The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUSinput signal. **Mandatory accessory:** AER485 or MODU-485A
- **CLPA:** Galvanised steel plenum to be installed on the condenser coil. **Facilitates duct installations. Not available with accessoires GPCL for size from 025 to 090**
- **VT:** Anti-vibration mounts.

Accessories factory fitted only

- **GPCL:** Protective grille. Protects the external condenser coil from damage.
- **DRE:** Electronic soft starter device reducing starting current by about 30%. Only for unit 400V/3/50Hz
- **KR**: Anti-freeze electric heater for the plate heat exchanger.

COMPATIBILITÀ con il SISTEMA VMF
Per maggiori informazioni sul sistema fare riferimento alla documentazione dedicata.

Accessory compatibility

CL		vers	25	30	50	70	90	100	150	200
MODU-485BL		All	•	•	•	•	•	•	•	•
MULTICONTROL		All	•	•	•	•	•	•	•	•
SPLW		All	•	•	•	•	•	•	•	•
SDHW		All	•	•	•	•	•	•	•	•
PR3		All	•	•	•	•	•	•	•	•
AERSET		All	•	•	•	•	•	•	•	•
CLPA	(1)	All	1	1	2	2	2	3	3	3
GPCL		All	1	1	2	2	2	3	3	3
VT		°/P	9	9	9	9	9	15	15	15
		A	15A	15A	15A	15A	15A	15	15	15
Accessories factory fitted only										
DRE	(2)		5	5	5	5	5	5 (x2)	5 (x2)	5 (x2)
KR			2	2	2	2	2	2	2	2

(1) Not available with accessoires GPCL for size from 025 to 090
(2) Only for unit 400V/3/50Hz

Unit configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

	Code
1,2	CL
3,4,5	**Size**
	025-030-050-070-090-100-150-200
6	**Model**
	° Only cooling
7	**Execution**
	° Standard
8	**Version**
	° Standard
	P With pump
	A Buffer tank
9	**Heat recovery**
	° Without recovery
	D With desuperheater
10	**Coil**
	° Aluminium
	R Copper
	S Tinned copper
	V Treated aluminium
11	**Field of use**
	° Standard (leaving water temperature down to 4°C)
	Z Low leaving liquid (from 4°C down to up to 0°C)
	Y Low leaving liquid (from 0°C down to -6°C) (6)
12	**Evaporator**
	° Standatd
	C Condensing unit
13	**Power supply**
	M 230V/1/50Hz (for size from 020 to 040)
	° 400V/3N/50Hz

Technical Data

CL - °				025	030	050	070	090	100	150	200
		V/ph/Hz		230V-400V	230V-400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	5,82	7,11	12,65	16,28	20,14	26,16	32,86	40,34
	Total power input	(1)	kW	2,23	2,70	4,37	5,58	6,93	8,99	11,51	14,57
	EER*			2,61	2,63	2,89	2,92	2,91	2,91	2,85	2,77
	EER	(1)		2,79	2,79	3,13	3,11	3,08	3,09	3,05	2,92
	ESEER	(1)		2,87	2,90	3,18	3,21	3,20	4,21	4,13	4,01
	Water flow rate	(1)	l/h	1009	1234	2191	2820	3487	4538	5701	7009
	Pressure drop	(1)	kPa	19	26	27	29	29	45	53	72
	Cooling mode for low temperature (UE n° 2016/2281)										
	ηsc		%	153,0	149,9	149,5	149,8	150,1	160,5	157,5	150,9
	SEER			3,90	3,82	3,81	3,82	3,83	4,09	4,01	3,85

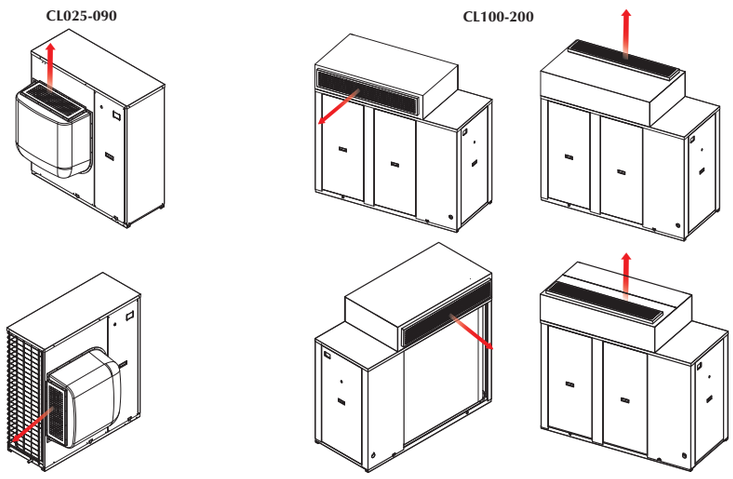
CL - P/A				025	030	050	070	090	100	150	200
12°C / 7°C	Cooling capacity	(1)	kW	5,87	7,18	12,80	16,47	20,37	26,71	33,68	41,33
	Total power input	(1)	kW	2,27	2,72	4,35	5,52	6,84	9,03	11,69	14,67
	EER*	(1)		2,59	2,64	2,94	2,98	2,98	2,96	2,88	2,82
	EER			2,77	2,80	3,18	3,17	3,16	2,85	2,91	2,74
	ESEER	(1)		2,85	2,91	3,23	3,28	3,28	4,28	4,17	4,08
	Water flow rate	(1)	l/h	1009	1234	2191	2820	3487	4538	5701	7009
	Useful head	(1)	kPa	58	49	79	74	71	82	131	122
	Cooling mode for low temperature (UE n° 2016/2281)										
	ηsc		%	160,8	157,6	158,2	157,7	156,3	154,8	151,1	150,8
	SEER			4,10	4,02	4,03	4,02	3,98	3,95	3,85	3,85

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C
* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

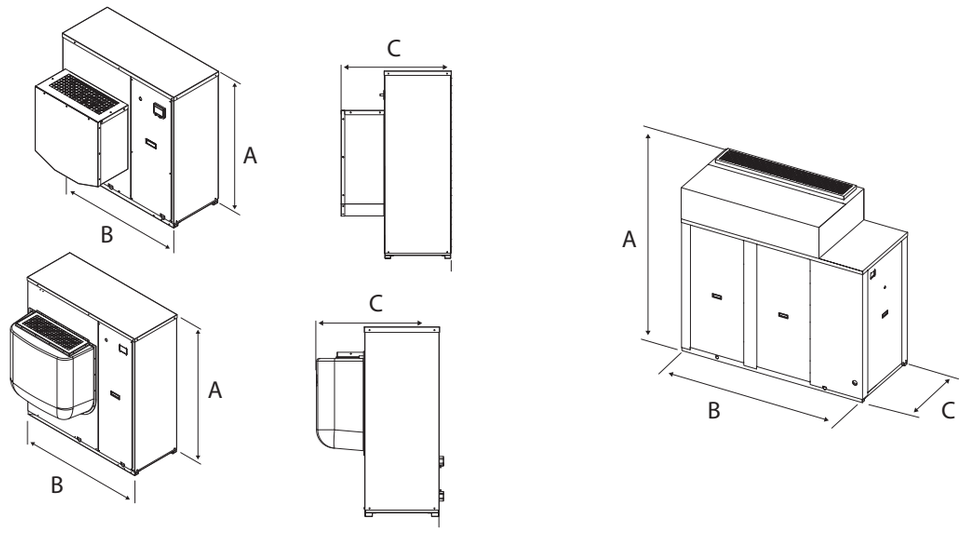
				025	030	050	070	090	100	150	200
Electrical data											
230V	Total input currente (cooling)	(2)	A	10,1	12,9	/	/	/	/	/	/
	Maximum current (FLA)	(2)	A	21,6	24,6	/	/	/	/	/	/
	Starting current (LRA)	(2)	A	66,6	87,6	/	/	/	/	/	/
400V	Total input currente (cooling)	(2)	A	4,8	5,1	8,5	10,2	12,8	16,7	19,7	25,3
	Maximum current (FLA)	(2)	A	11,1	11,6	13,7	15,4	20,4	27,4	30,8	40,8
	Starting current (LRA)	(2)	A	37,6	40,6	77,2	77,2	105,2	90,9	92,6	125,6
Scroll Compressor											
Compressors / circuit			n°/n°	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant			Type	R410A							
Heat exchanger system side											
Exchanger			Type/n°	Plate/1							
hydraulic connections (In/Out)			Ø	1"1/4							
Fans Plug-fan											
Fan			Type/n°	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2
Air flow rate		°	m³/h	4000	4000	6500	6500	7500	10000	12000	12000
High static pressure			Pa	50	50	80	80	80	80	100	100
Sound data - chiller (cooling)											
Sound power level		°	dB(A)	78	78	73	73	76	74	79	79
Sound pressure level		°	dB(A)	46	46	41	41	44	42	47	47
Sound data - delivery (cooling)											
Sound power level		°	dB(A)	78	78	78	78	81	78	83	83
Sound pressure level		°	dB(A)	46	46	46	46	49	47	52	52

(2) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Discharge hood possible configurations (site modified)



Dimensions (mm)



CL			025	030	050	070	090	100	150	200
° (without hydronic kit)										
Height	A	mm	1028	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1006	1160	1160	1160	1897	1897	1897
Length	C	mm	702	754	798	798	798	801	801	801
P (with pump)										
Height	A	mm	1028	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1006	1160	1160	1160	1897	1897	1897
Length	C	mm	702	754	798	798	798	801	801	801
A (with buffer tank)										
Height	A	mm	1028	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1366	1458	1610	1610	1610	1897	1897	1897
Length	C	mm	702	754	798	798	798	801	801	801
Weight										
CL - °		kg	127	160	208	210	212	469	471	475
CL - P		kg	133	166	217	225	221	482	487	492
CL - A		kg	157	201	252	260	256	532	537	542

Cod.: SCLUY.06 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

CL
025/200

Air cooled chiller and heat pump with plug fan
Cooling Capacity from 6 to 38 kW
Heating capacity from 7 to 44 kW

Variable Multi Flow
VMF

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Program: LCP The products of interest can be found on the website www.eurovent-certification.com



- **HEAT PUMP OPTIMISED FOR HEATING: PRODUCTION OF HOT WATER UP TO 60°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES FROM –15°C TO 42°C**
- **INTERFACES WITH VARIABLE MULTIFLOW VMF SYSTEM**
- **EVAPORATING AND CONDENSING CONTROL STANDARD**
- **INVERTER PLUG FAN**
- **DOMESTIC HOT WATER (DHW) PRODUCTION WITH EXTERNAL TEMPERATURES FROM –15°C TO 42°C**

Characteristics

- Cooling only and heat pump models "H"
- Manufactured with refrigerant R410A
- Versions available:
  "=" Standard
  "HP" With pump, expansion tank and water filter
  "HA" With pump, expansion tank, water filter and buffer tank
- All versions are available for the production of chilled water down to -6°C (see unit configurator option)
- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Compressor crank case heater standard
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors conforming to regulation EU 327/2011
  Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Plate heat exchanger anti-freeze electric heater "KR" standard on heat pump "H" models
- Condensate drain tray standard on heat pump "H" models
- Anti-freeze electric heater standard for the buffer tank

Accessories

- **AERSET:** The accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUSinput signal. **Mandatory accessory:** AER485 or MODU-485A
- **MODU-485BL:** RS-485 interface for supervising systems with MODBUS protocol. (accessory mandatory for the production of domestic hot water).
- **DRE**: Electronic soft starter. Reduces starting current by about 30%. Factory fitted only.
- **KR**: Plate heat exchanger anti-freeze electric heater (only available for cooling only versions)
  Factory fitted only.
- **PR3**: Simplified remote panel. Permits control of basic unit functions and alarm notification. Remote mounted with shielded cable up to 30 m distance.
- **VT**: Anti-vibration mounts.
- **CLPA:** Galvanised steel plenum to be installed on the condenser coil. Facilitates duct installations.
- **GPCL:** Protective grille. Protects the external condenser coil from damage.
- **KR B4/B5/B6:** Electric base heater to prevent the formation of ice (only available for heat pump versions).
- **BSKW**: External electric heater kit of various capacities with single and three phase power supplies:
  - BS4KW230M (4kW, 230V/1/50Hz)
  - BS6KW230M (6kW, 230V/1/50Hz)
  - BS6KW400T (6kW, 400V/3/50Hz)
  - BS9KW400T (9kW, 400V/3/50Hz)
- **MULTICONTROL**: can be used as a remote panel for a single unit or to simultaneously control several chillers or heat pumps (up to 4) installed in the same hydraulic system, fitted with our MODUCONTROL controller.

For complete control the following accessories are available:

- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **SDHW:** Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.

- ***COMPATIBILITY with the VMF SYSTEM***
  For more information on the system refer to the manual.

CL		ver.	25	30	40	50	70	80	90	100	150	200
MODU-485BL	(1)	All	•	•	•	•	•	•	•	•	•	•
MULTICONTROL		All	•	•	•	•	•	•	•	•	•	•
SPLW		All	•	•	•	•	•	•	•	•	•	•
SDHW		All	•	•	•	•	•	•	•	•	•	•
PR3		All	•	•	•	•	•	•	•	•	•	•
AERSET		All	•	•	•	•	•	•	•	•	•	•
BS4KW230M		**H**	•	•	•	-	-	-	-	-	-	-
BS6KW230M		**H**	•	•	•	-	-	-	-	-	-	-
BS6KW400T		**H**	•	•	•	•	•	•	•	•	•	•
BS9KW400T		**H**	•	•	•	•	•	•	•	•	•	•
CLPA	(2)	All	1	1	2	2	2	2	2	3	3	3
GPCL		All	1	1	2	2	2	2	2	3	3	3
VT		**H / HP**	9	9	9	9	9	9	9	15	15	15
		HA	15A	15A	15A	15A	15A	15A	15A	15	15	15
Accessori montati in fabbrica												
DRE	(3)		5	5	5	5	5	5	5	5 (x2)	5 (x2)	5 (x2)
KRB4		**H**	•	•	-	-	-	-	-	-	-	-
KRB5		**H**	-	-	•	•	•	•	•	-	-	
KRB6		**H**	-	-	-	-	-	-	-	•	•	•

(1) Accessory mandatory for the production of domestic hot water
(2) Not available with accesory GPCL only for sizes 025 to 090
(3) Only 400V/3N/50Hz

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Filed **Code**

1,2 CL

3,4,5 **Size**
025-030-040-050-070-080-090-100-150-200

6 **Model**
° Cooling Only
H Heat pumps

7 **Execution**
° Standard
L Low noise (5)

8 **Version**
° Standard
P With pump
A With pump and buffer tank (6)

9 **Heat recovery**
° Without recovery
D With desuperheater (7)

10 **Coil**
° Aluminium
R Copper
S Tinned copper
V Coated aluminium (epoxy paint)

11 **Field of use**
° Standard (leaving water temperature down to 4°C)
Z Low temperature (Low leaving liquid from 4°C down to up to 0°C)
Y Low temperature (Low leaving liquid from 0°C down to -6°C)

12 **Evaporator**
° Standatd
C Condensing unit

13 **Power supply**
M 230V/1/50Hz (from 020 to 040)
° 400V/3N/50Hz

(5) No Heat pump versions
(6) The units CLH with integrated buffer tank, are not suitable for producing of hot water (DHW)
(7) for cooling only versions from size 050 to 200

Technical data

CL - H				025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,39	8,35	10,34	11,90	13,96	15,49	18,92	23,82	31,21	37,43
	Total input power	(1)	kW	2,69	3,13	3,89	4,27	4,93	5,73	6,91	8,36	11,17	14,67
	EER	(1)		2,38	2,67	2,66	2,79	2,83	2,70	2,74	2,85	2,79	2,55
	ESEER	(1)		2,61	2,93	2,92	3,07	3,11	2,97	3,01	4,12	4,04	3,70
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	5394	6484
	Pressure drop	(1)	kPa	13	12	13	11	15	26	26	34	22	43
40°C / 45°C	Heating capacity	(2)	kW	7,92	9,79	12,52	14,47	15,95	18,61	21,06	27,98	34,92	44,00
	Total input power	(2)	kW	2,39	3,01	3,79	4,22	4,85	5,60	6,71	8,30	10,86	14,75
	COP	(2)		3,31	3,25	3,30	3,43	3,29	3,32	3,14	3,37	3,22	2,98
	Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597	4772	5971	7346
	Pressure drop	(2)	kPa	19	16	18	17	21	32	34	49	30	42
	Performance under average climatic conditions (Average)												
	Pdesignh	(3)		7	8	10	11	13	15	18	22	27	39
	SCOP	(3)		3,35	2,60	2,60	2,70	2,60	2,65	3,30	2,68	2,60	3,23
	ηs	(3)		131	101	101	105	101	103	129	104	101	126
	Efficiency Energy Class	(4)		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	Cooling mode for low temperature												
	ηsc		%	114,2	127,6	129,6	134,8	134,0	127,8	132,4	159,2	159,2	143,4
	SEER			2,93	3,27	3,32	3,45	3,43	3,27	3,39	4,06	4,06	3,66

CL - HP/HA				025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,44	8,42	10,44	12,03	14,12	15,67	19,14	24,34	31,94	38,31
	Total input power	(1)	kW	2,72	3,14	3,88	4,27	4,91	5,68	6,84	8,43	11,43	14,93
	EER	(1)		2,37	2,68	2,69	2,82	2,88	2,76	2,80	2,89	2,79	2,57
	ESEER	(1)		2,61	2,95	2,96	3,10	3,16	3,03	3,08	4,18	4,04	3,71
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	5394	6484
	Pressure drop	(1)	kPa	64	63	60	98	93	81	75	99	157	144
40°C / 45°C	Heating capacity	(2)	kW	7,85	9,70	12,39	14,30	15,76	18,39	20,81	27,41	34,14	43,84
	Total input power	(2)	kW	2,40	3,01	3,76	4,20	4,81	5,52	6,62	8,35	11,11	14,98
	COP*	(2)		3,27	3,22	3,30	3,40	3,28	3,33	3,14	3,28	3,07	2,93
	COP	(2)		3,48	3,40	3,62	3,71	3,52	3,56	3,35	3,5	3,29	3,07
	Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597	4772	5971	7346
	Pressure drop	(2)	kPa	57	58	53	93	88	71	70	81	147	130
	Performance under average climatic conditions (Average)												
	Pdesignh	(3)		6	8	10	11	12	14	18	21	27	37
	SCOP	(3)		2,63	2,60	2,60	2,68	2,58	2,65	3,35	2,60	2,58	3,20
	ηs	(3)		102	101	101	104	100	103	131	101	100	125
	Efficiency Energy Class	(4)		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	Cooling mode for low temperature												
	ηsc		%	121,4	135,9	138,0	141,9	141,7	135,3	141,0	159,5	150,8	141,1
	SEER			3,11	3,47	3,53	3,62	3,62	3,46	3,60	4,06	3,85	3,60

				025	030	040	050	070	080	090	100	150	200
Electrical data													
230V	Total input current (cooling)	(5)	A	12,7	15,4	16,0	/	/	/	/	/	/	/
	Total input current (heating)	(5)	A	11,8	14,3	15,6	/	/	/	/	/	/	/
	Maximum current (FLA)	(5)	A	18,8	23,7	24,0	/	/	/	/	/	/	/
	Starting current (LRA)	(5)	A	86,1	95,5	96,1	/	/	/	/	/	/	/
400V	Total input currente (cooling)	(5)	A	5,5	6,3	6,7	7,7	8,4	9,8	13,4	14,3	21,3	26,6
	Total input currente (heating)	(5)	A	5,5	6,2	6,5	7,6	8,2	9,3	12,7	14,3	19,5	26,5
	Maximum current (FLA)	(5)	A	11,0	12,0	11,9	13,5	14,7	15,2	20,4	27,0	30,3	40,8
	Starting current (LRA)	(5)	A	44,6	44,6	57,2	64,2	74,2	94,2	105,2	77,7	109,3	125,6
Scroll Compressor													
Compressor			Type/n°	1	1	1	1	1	1	1	2	2	2
Circuit			n°	1	1	1	1	1	1	1	1	1	1
Refrigerant			Type	R410A									
Heat exchanger system side													
Exchanger			Type/n°	Plate/1									
hydraulic connections (In/Out)			Ø	1"1/4									

Date (14511:2013)

* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

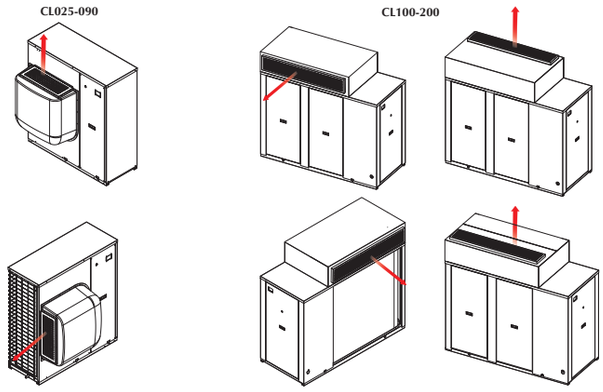
(5) Unit standar configuration without hydronic kit

Technical data

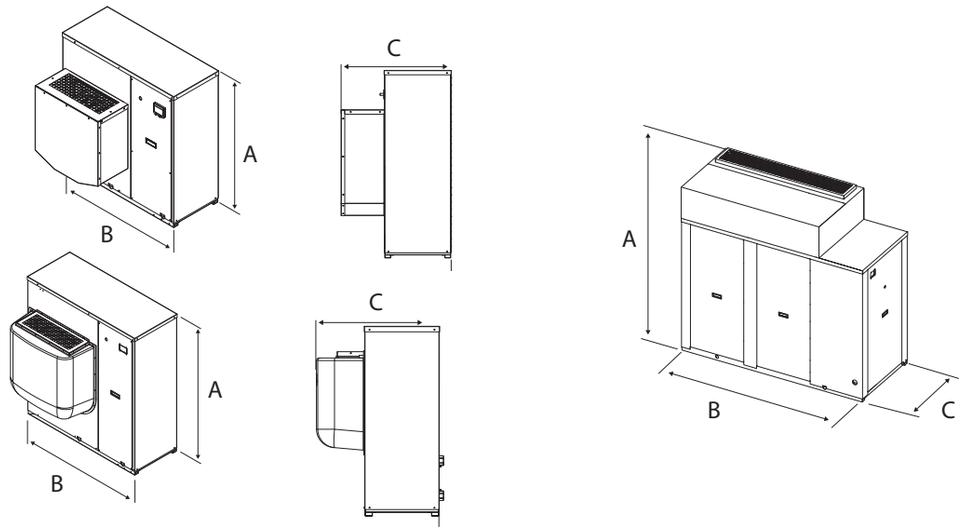
		025	030	040	050	070	080	090	100	150	200
Plug-fan											
Fans	Type/n°	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2
Air flow rate (cooling)	m³/h	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
Nominal high static pressure	Pa	50	50	50	80	80	80	80	80	100	100
Sound data chiller (cooling mode)											
Sound power level	dB(A)	78	78	73	73	73	73	76	74	79	80
Sound pressure level	dB(A)	46	46	41	41	41	41	44	42	47	48
Sound data Delivery (cooling mode)											
Sound power level	dB(A)	78	78	78	78	78	78	81	78	83	85
Sound pressure level	dB(A)	46	46	46	46	46	46	49	47	52	54

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Discharge hood possible configurations (site modified)



Dimensional data (mm)



CL standard and low noise		025	030	040	050	070	080	090	100	150	200
H (without hydronic kit)											
A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
C	mm	702	702	798	798	798	798	798	801	801	801
HP (with pump)											
A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
C	mm	702	702	798	798	798	798	798	801	801	801
HA (with Storage tank)											
A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm	1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
C	mm	702	702	798	798	798	798	798	801	801	801
Weight											
CL - H	kg	142	142	229	229	240	240	234	504	527	515
CL - HP	kg	148	148	239	239	250	250	243	517	543	531
CL - HA	kg	172	172	274	274	284	284	279	567	593	581

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

Cod.: SCLUY.09 / 1709

NLC

0280/1250
only cooling

Chillers Air/Water for indoor installation
Scroll compressors, plate exchangers and plug-fans brushless - EC
Cooling capacity from 52÷318kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
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Variable Multi Flow®
VMF



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **COOLING CIRCUIT WITH CASING**
- **COMPLETE AIR FLOW VERSATILITY**
- **HIGH EFFICIENCY PLUG–FANS**
- **NIGHT MODE**

Features

The NLC pumps are reversible heat pumps, designed and manufactured for the production of chilled water in residential / commercial buildings.
The units are equipped with high efficiency scroll compressors, plug-fans, external copper coils with aluminium louvers, plate heat exchangers on the system side. In the units (with desuperheater), there is also the possibility of producing hot water for free. The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

Versions
NLC_° Standard
NLC_A High efficiency
NLC_E Silenced high efficiency

Operating range: Work up to 46°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation

- The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.
- The possibility of using the electronic thermostatic valve brings significant benefits, especially when the heat pump is working at partial loads to the benefit of the unit's energy efficiency.
- Electric resistance for the evaporator as standard.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available, with or without storage tank.
- The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.
- Horizontal or vertical air flow.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
  Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET:** the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.
- **FLG:** Flanges for ducts.
- **FL:** Flow switch.
- **FILW:** Water filter
  Attention, the flow switch and the water filter must be mounted; failure to do so will void the warranty.

Accessories mounted in the factory;
- **DRE**: Plate peak current reduction electronic device.
- **RIFNLC**: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KRQ**: Anti-condensate electric board resistance.
- **KRA**: Storage tank antifreeze resistance.

- **COMPATIBILITY with the VMF SYSTEM**
  For further information on system, refer to specific documentation.

Accessories compatibility

Mod. NLC	.	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
C-TOUCH		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FILTROW		DN50	DN50	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN80	DN80	DN80	DN80
FLG	A/E	1	1	1	1	2 (x2)	2 (x2)	2 (x2)	2 (x2)	1 (x2)	1+2(x2)	2 (x4)	2 (x4)	2 (x4)	2 (x4)	2 (x4)
	°	1	1	1	1	1	2 (x2)	2 (x2)	2 (x2)	1 (x2)	1 (x2)	1 (x2)	1+2(x2)	2 (x4)	2 (x4)	2 (x4)
VT	00	17	17	17	17	-	-	-	-	-	-	-	-	-	-	-
	P1-P8	13	13	13	13	-	-	-	-	-	-	-	-	-	-	-
	01-08	11	11	11	11	-	-	-	-	-	-	-	-	-	-	-
AVX °	00	-	-	-	-	437	421	421	421	424	440	440	444	431	431	431
	P1-P3	-	-	-	-	438	421	421	422	425	425	442	445	432	432	432
	P2-P4	-	-	-	-	438	422	422	422	426	426	443	445	433	433	433
	01-03	-	-	-	-	439	423	423	423	427	441	441	446	435	434	434
	02-04	-	-	-	-										436	436
AVX A/E	00	-	-	-	-	421	421	421	421	424	428	431	431	431	431	431
	P1-P3	-	-	-	-	421	421	422	422	425	429	432	432	432	432	432
	P2-P4	-	-	-	-	422	422	422	422	426	429	433	433	433	433	433
	01-03	-	-	-	-	423	423	423	423	427	430	434	434	434	434	434
	02-04	-	-	-	-	423	423	423	423	427	430	435	435	435	436	436
Accessories mounted in the factory																
DRE		275	275	300	350	552	602	652	675	350 (x2)	552 (x2)	552 (x2)	602 (x2)	652 (x2)	675 (x2)	1250
RIFNLC		1	1	2	3	1	1	1	4	3 (x2)	3 + 2	1 (x2)	1 (x2)	1 (x2)	4 (x2)	3 (x2)
KRQ		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KRA		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2

(x2) indicates the quantity to be ordered

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field **Description**

1,2,3 **NLC**

4,5,6,7 **Size**
0280-0300-0330-0350-0550-0600-0650-0675-0700-0750-0800-0900-1000-1100-1250

8 **field of application**
- **°** Standard (water produced up to +4°C)
- **Z** Thermostatic valve (water produced up 0 to + 4°C) (1)
- **Y** Thermostatic valve (water produced up -6 to + 0°C) (1)
- **X** Electronic expansion valve (water produced up +4 °C)
  Contact the head office for lower temperatures

9 **Model**
- **°** Only cooling
- **C** Condensing unit

10 **Heat recovery**
- **°** Without heat recovery
- **D** With desuperheater
- **T** With Total recovery (2)

11 **Versions**
- **°** Standard
- **A** High efficiency
- **E** Silenced high efficiency

12 **Coils**
- **°** Aluminium
- **R** Copper - Copper
- **S** Copper - Thinned
- **V** Painted aluminium

13 **Fan**
- **J** EC inverter

14 **Power supply**
- **°** 400V/3/50Hz with magnet circuit breakers
- **1** 220V/3/50Hz with magnet circuit breakers

15-16 **Integrated hydronic kit**
- **00** Without hydronic kit
- **01** Storage tank and single low static pressure pump
- **02** Storage tank, single low static pressure pump and reserve pump
- **03** Storage tank and single high static pressure pump
- **04** Storage tank, single high static pressure pump and reserve pump
- **05** Storage tank and single low static pressure pump
- **06** Storage tank, single low static pressure inverter pump and reserve inverter pump
- **07** Storage tank and single high static pressure inverter pump
- **08** Storage tank, single high static pressure inverter pump and reserve inverter pump
- **P1** Single low static pressure pump
- **P2** Single low static pressure pump and reserve pump
- **P3** Single high static pressure pump
- **P4** Single high static pressure pump and reserve inverter pump
- **P5** Single low static pressure inverter pump
- **P6** Single low static pressure inverter pump and reserve inverter pump
- **P7** Single high static pressure inverter pump
- **P8** Single high static pressure inverter pump and reserve inverter pump

(1) Not available for the model with heat recovery. "D and T"
(2) Not available for condensing units, and for models with storage tank and pumps (01 - 08)
(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

Technical data

NLC - °				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
	V/ph/Hz			400V/3N/50Hz														
12°C / 7°C	Cooling capacity	(1)	kW	52,10	57,00	62,70	75,20	94	111,8	122,7	137,2	151,2	169,9	189,3	219,7	242,1	276,7	305,8
	Total power input	(1)	kW	20,70	23,70	24,60	29,30	39,6	44,8	50,6	54,2	59,3	67,2	79,6	87,3	100,7	108,5	122,3
	EER*	(1)		2,52	2,41	2,55	2,57	2,37	2,50	2,42	2,53	2,55	2,53	2,38	2,52	2,40	2,55	2,50
	EER			2,71	2,59	2,71	2,72	2,47	2,64	2,55	2,66	2,70	2,66	2,48	2,65	2,52	2,67	2,61
	ESEER	(1)		3,79	3,62	3,84	3,85	3,56	3,74	3,64	3,79	3,80	3,71	3,54	3,75	3,58	3,80	3,67
	Water flow rate	(1)	l/h	8976	9834	10814	12967	16236	19281	21166	23680	26083	29294	32649	37884	41736	47712	52763
	Pressure drop	(1)	kPa	19	22	28	27	43	27	31	43	37	30	38	35	35	41	48
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	SEER			4,51	4,59	4,56	4,73	4,75	4,74	4,75	4,78	4,78	4,75	4,73	4,75	4,67	4,51	4,51
	ηsc			177,5	180,7	179,3	186,0	187,1	186,4	186,9	188,0	188,1	186,9	186,3	186,9	183,6	177,5	177,5

NLC - A				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
12°C / 7°C	Cooling capacity	(1)	kW	53,90	59,20	66,70	78,40	106,1	119,2	129	146	157,2	177,6	209,3	232,8	257,1	289,9	318,4
	Total power input	(1)	kW	19,80	21,90	23,70	28,00	38,2	43,4	45,3	52,9	56	61,1	76,1	85,5	90,3	106,6	116,7
	EER*	(1)		2,72	2,70	2,81	2,80	2,78	2,75	2,85	2,76	2,81	2,91	2,75	2,72	2,85	2,72	2,73
	EER			2,95	2,92	2,98	2,96	2,93	2,90	2,97	2,89	2,98	3,12	2,90	2,85	2,97	2,84	2,84
	ESEER	(1)		4,11	4,07	4,24	4,19	4,17	4,12	4,27	4,14	4,18	4,27	4,10	4,05	4,24	4,05	4,01
	Water flow rate	(1)	l/h	9298	10218	11504	13530	18293	20558	22255	25195	27100	30614	36081	40125	44315	49976	54903
	Pressure drop	(1)	kPa	20	24	22	30	25	30	36	36	25	25	33	33	35	37	43
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	SEER			4,51	4,59	4,56	4,73	4,75	4,74	4,75	4,78	4,78	4,75	4,73	4,75	4,67	4,51	4,51
	ηsc			177,5	180,7	179,3	186,0	187,1	186,4	186,9	188,0	188,1	186,9	186,3	186,9	183,6	177,5	177,5

NLC - E				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
12°C / 7°C	Cooling capacity	(1)	kW	52,10	57,90	64,10	73,20	102,8	115,4	124,3	142,3	150,8	171,1	200,9	224,4	247,5	282,2	309,9
	Total power input	(1)	kW	19,60	21,80	23,90	27,80	37,8	43	46,1	52,8	55,9	60,7	75,2	85,6	91	106,3	116,5
	EER*	(1)		2,66	2,66	2,68	2,63	2,72	2,68	2,70	2,70	2,70	2,82	2,67	2,62	2,72	2,65	2,66
	EER			2,81	2,82	2,80	2,75	2,80	2,79	2,75	2,77	2,82	2,96	2,75	2,69	2,78	2,73	2,73
	ESEER	(1)		3,95	3,91	4,07	4,03	4,00	3,95	4,10	3,97	4,02	4,10	3,93	3,89	4,07	3,89	3,85
	Water flow rate	(1)	l/h	8991	9988	11055	12633	17714	19900	21440	24544	25988	29485	34635	38681	42666	48647	53434
	Pressure drop	(1)	kPa	19	23	20	26	23	29	34	34	23	24	31	30	33	35	41
	Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
	SEER			4,51	4,59	4,56	4,73	4,75	4,74	4,75	4,78	4,78	4,75	4,73	4,75	4,67	4,51	4,51
	ηsc			177,5	180,7	179,3	186,0	187,1	186,4	186,9	188,0	188,1	186,9	186,3	186,9	183,6	177,5	177,5

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electrical data																		
Total input currente (cooling)	(2)	°	A	38,1	42,3	45,7	56,7	68,2	76,5	84,6	92,3	112,7	121,1	135,9	148,1	168,6	181	207,7
Maximum current (FLA)	(2)	°	A	52	56	62	73	103	111	119	132	146	169	206	222	238	263	289
Starting current (LRA)	(2)	°	A	128	130	133	216	261	273	281	358	290	346	353	372	400	489	515
Total input currente (cooling)	(2)	A	A	36,3	40,3	43,2	53,5	63	71,4	73	86,6	107,1	113,4	125,6	139,1	145,9	173,1	197,7
Maximum current (FLA)	(2)	A	A	52	56	62	73	92	111	119	132	146	158	183	210	238	263	289
Starting current (LRA)	(2)	A	A	128	130	133	216	273	273	281	358	290	357	376	384	400	489	515
Total input currente (cooling)	(2)	E	A	35,6	39,1	43,2	52,8	61,8	68,9	73,1	85,2	106,3	112	123,1	138,3	145,9	170,1	196,5
Maximum current (FLA)	(2)	E	A	52	56	62	73	92	111	119	132	146	158	183	210	238	263	289
Starting current (LRA)	(2)	E	A	128	130	133	216	273	273	281	358	290	357	376	384	400	489	515
Scroll Compressor																		
Compressori / Circuito			Type/n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A														
Heat exchanger system side																		
Exchanger			Type/n°	Plate/1														
hydraulic connections (In/Out)			Ø	2"	2"	2"	2"	2"	2"	2"	2"	2" 1/2	2" 1/2	3"	3"	3"	3"	3"
Fans Plug-fan inverter EC																		
Fan		°	n°	2	2	2	2	2	4	4	4	4	4	4	6	8	8	8
Air flow rate		°	m³/h	21600	24000	21150	23600	23200	34050	34050	38200	47150	46750	46350	62150	68100	66650	71750
Fan		A	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate		A	m³/h	21150	23600	19400	22050	27700	33350	27150	32750	44050	57900	55350	55350	54300	65450	65450
Fan		E	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate		E	m³/h	15000	18400	14650	16450	14900	22200	14600	21750	32900	41900	29850	29850	29200	43500	43500
High static pressure			Pa	120														
Sound data - chiller (cooling)																		
Sound power level			dB(A)	83	86	83	85	88	84	84	86	88	90	91	87	87	89	89
Sound pressure level			dB(A)	66	68	66	68	70	66	66	68	70	71	72	68	67	69	69
Sound power level			dB(A)	84	86	82	85	83	85	83	85	88	86	86	88	86	88	88
Sound pressure level			dB(A)	66	69	65	67	65	67	65	67	69	66	66	68	66	68	68
Sound power level			dB(A)	77	80	77	78	75	79	75	78	81	80	78	82	78	81	81
Sound pressure level			dB(A)	59	63	59	61	57	60	57	60	63	61	58	62	58	62	62

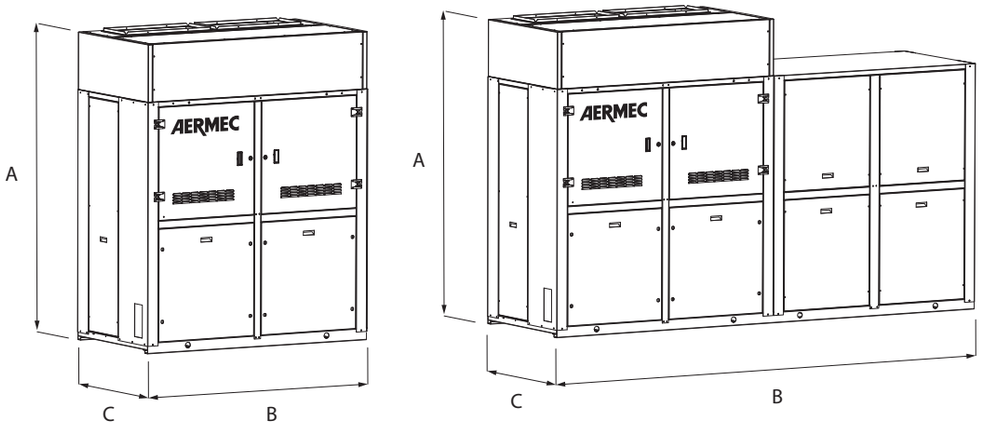
(2) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions



The designs are representative of some structural work, more information is available in the technical documentation

NLC (3)	.			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A			mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	°	00	mm	1750	1750	1750	1750	1750	3150	3150	3150	3500	3500	3500	4900	6300	6300	6300
	A	00	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
	E	00	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
	°	P1÷P8	mm	2500	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	4900	6300	6300	6300
	A	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
	E	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
	°	01÷08	mm	3400	3400	3400	3400	3500	4150	4150	4150	5250	5250	5250	5900	7300	7300	7300
	A	01÷08	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
	E	01÷08	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
C			mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

(3) For the size of chillers with total recovery contact Aermec

Cod.: SNLC0280_1250_co_ceUY.00 / 1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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NLC H
0280/1250
heat pump

Reversible Air/Water heat pump for indoor installation
Scroll compressors, plate exchangers and plug-fans EC inverter
Cooling capacity from 52 - 316kW
Heating capacity from 56 - 349kW

HFC
Refrigerant
R410A



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Program: LCP The products of interest can be found on the website www.eurovent-certification.com

Variable Multi Flow
VMF

- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **COOLING CIRCUIT WITH CASING**
- **COMPLETE AIR FLOW VERSATILITY**
- **HIGH EFFICIENCY PLUG–FANS**
- **NIGHT MODE**

Features

The NLC pumps are reversible heat pumps, designed and manufactured for the production of chilled / heated water in residential / commercial buildings.
The units are equipped with high efficiency scroll compressors, plug-fans, external copper coils with aluminium louvers, plate heat exchangers on the system side. In the units (with desuperheater), in the cooling mode, there is also the possibility of producing hot water for free. The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

Versions
NLC_HA High efficiency
NLC_HE Silenced high efficiency

Operating range: Work up to 44°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.
- The possibility of using the electronic thermostatic valve brings significant benefits, especially when the heat pump is working at partial loads to the benefit of the unit's energy efficiency.
- Electric resistance for the evaporator as standard.
- Condensate drip tray as standard.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available, with or without storage tank.
- The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.
- Horizontal or vertical air flow.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
  Adjustment includes complete management of the alarms and their log.
  - The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
  - The temperature control takes place with the integral proportional logic, based on the water output temperature.
  - Night Mode: it is possible to set a silenced operation profile.
    Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Allows you to control the chiller at a distance.
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.
- **FLG:** Flanges for ducts.
- **FL:** Flow switch.
- **FILW:** Water filter **Attention, the flow switch and the water filter must be mounted; failure to do so will void the warranty.**

Accessories mounted in the factory;
- **DRE**: Plate peak current reduction electronic device.
- **RIFNLC**: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KRB**: Resistance for condensate drip tray.
- **KRQ**: Anti-condensate electric board resistance.
- **KRA**: Storage tank antifreeze resistance.
- **COMPATIBILITY with the VMF SYSTEM**
  For further information on system, refer to specific documentation.

Accessories compatibility

Mod. NLC_H	.	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
C-TOUCH		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FILTROW		DN50	DN50	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN80	DN80	DN80	DN80
FLG		1	1	1	1	2	2	2	2	1 (x2)	1 + 2	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
VT	00	17	17	17	17	-	-	-	-	-	-	-	-	-	-	-
	P1-P8	13	13	13	13	-	-	-	-	-	-	-	-	-	-	-
	01-08	11	11	11	11	-	-	-	-	-	-	-	-	-	-	-
AVX	00	-	-	-	-	410	410	410	410	410	416	418	418	420	420	420
	P1-P3	-	-	-	-	410	410	410	410	413	416	418	418	420	420	420
	P2-P4	-	-	-	-	411	411	411	411	414	416	418	418	420	420	420
	01-03	-	-	-	-	412	412	412	412	415	417	419	419	419	419	419
	02-04	-	-	-	-	412	412	412	412	415	417	419	419	419	419	419
Accessories mounted in the factory																
DRE		275	275	300	350	552	602	652	675	350 (x2)	552 (x2)	552 (x2)	602 (x2)	652 (x2)	675 (x2)	1250
RIFNLC		1	1	2	3	1	1	1	4	3 (x2)	3 + 2	1 (x2)	1 (x2)	1 (x2)	4 (x2)	3 (x2)
KRB		21	21	21	21	22	22	22	22	23	24	25	25	25	25	25
KRQ		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KRA		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2

x2 = Number to order

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field **Description**

1,2,3 **NLC**

4,5,6,7 **Sizes**

0280-0300-0330-0350-0550-0600-0650-0675-0700-0750-0800-0900-1000-1100-1250

8 **Scope of application**

° Standard (water produced up to +4°C)

X Electronic thermostatic valve (water produced up to +4 °C) (1)

9 **Model**

H Heat Pump

10 **Heat recovery**

° Without heat recovery

D With desuperheater (2)

11 **Version**

A High efficiency

E Silenced high efficiency

12 **Coils**

° Aluminium

R Copper - Copper

S Copper - Thinned

V Painted aluminium

13 **Fan**

J EC inverter

14 **Power supply**

° 400V/3/50Hz with magnet circuit breakers

1 220V/3/50Hz with magnet circuit breakers

15-16 **Integrated hydronic kit** (3)

00 Without hydronic kit

01 Storage tank and single low static pressure pump

02 Storage tank, single low static pressure pump and reserve pump

03 Storage tank and single high static pressure pump

04 Storage tank, single high static pressure pump and reserve pump

05 Storage tank and single low static pressure pump

06 Storage tank, single low static pressure inverter pump and reserve inverter pump

07 Storage tank and single high static pressure inverter pump

08 Storage tank, single high static pressure inverter pump and reserve inverter pump

P1 Single low static pressure pump

P2 Single low static pressure pump and reserve pump

P3 Single high static pressure pump

P4 Single high static pressure pump and reserve inverter pump

P5 Single low static pressure inverter pump

P6 Single low static pressure inverter pump and reserve inverter pump

P7 Single high static pressure inverter pump

P8 Single high static pressure inverter pump and reserve inverter pump

(1) Contact the head office for lower temperatures

(2) The desuperheater may only be used for the cooling mode

(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

Technical data

NLC - HA				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
	V/ph/Hz			400V/3N/50Hz														
12°C / 7°C	Cooling capacity	(1)	kW	54,3	60,3	66,6	78,4	102,3	115,1	125,8	143,1	157,9	180,8	201,5	232,0	252,2	286,4	315,6
	Total input power	(1)	kW	20,4	22,9	24,8	29,0	38,4	44,0	47,5	55,2	58,1	67,1	75,8	88,3	94,7	110,2	128,8
	EER*	(1)		2,66	2,63	2,68	2,70	2,67	2,61	2,65	2,59	2,72	2,69	2,66	2,63	2,66	2,60	2,45
	EER			2,90	2,87	2,89	2,89	2,89	2,83	2,84	2,77	2,90	2,89	2,88	2,84	2,85	2,78	2,60
	ESEER	(1)		3,99	3,95	4,02	4,10	4,06	3,97	4,03	3,94	4,22	4,17	4,12	4,08	4,12	4,03	3,80
	Water flow rate	(1)	l/h	9378	10407	11493	13550	17657	19877	21725	24718	27243	31193	34790	40045	43528	49436	54496
	Pressure drop	(1)	kPa	21	25	23	30	24	29	35	35	26	25	34	34	36	38	44
40°C / 45°C	Heating capacity	(2)	kW	56,50	63,70	70,86	82,77	110,01	122,67	137,32	156,92	168,71	193,88	218,82	245,22	274,04	313,22	349,13
	Total input power	(2)	kW	19,49	22,31	24,36	28,26	37,62	42,19	47,03	54,34	56,59	65,97	74,74	84,17	92,59	106,56	119,46
	COP*	(2)		2,90	2,85	2,91	2,93	2,92	2,91	2,92	2,89	2,98	2,94	2,93	2,91	2,96	2,94	2,92
	COP			3,16	3,12	3,14	3,15	3,17	3,16	3,13	3,09	3,19	3,16	3,18	3,16	3,18	3,15	3,11
	Water flow rate	(2)	l/h	9596	10814	12034	14050	18689	20833	23310	26639	28671	32954	37171	41666	46557	53208	59279
	Pressure drop	(2)	kPa	22	27	25	32	27	32	40	41	29	28	38	37	41	43	52
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW																	
	Pdesignh	(3)		52	59	66	77	102	114	127	146	157	180	203	228	254	291	324
	SCOP	(3)		3,28	3,20	3,28	3,30	3,30	3,28	3,33	3,25	3,35	3,35	3,33	3,28	3,35	3,30	3,33
	ηs	(3)		128	125	128	129	129	128	130	127	131	131	130	128	131	129	130
	Efficiency Energy Class			A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature																	
	ηsc			176,1	177,1	177,8	185,2	192,5	186,4	183,1	177,7	172,2	170,3	177,5	175,8	171,4	168,7	160,0
	SEER			4,48	4,50	4,52	4,71	4,89	4,74	4,65	4,52	4,38	4,33	4,51	4,47	4,36	4,29	4,08

NLC - HE				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
12°C / 7°C	Cooling capacity	(1)	kW	52,0	58,1	63,4	74,8	97,6	110,4	118,3	136,5	150,0	171,9	192,3	223,3	241,6	273,1	304,1
	Total input power	(1)	kW	20,7	23,3	25,8	29,8	40,6	46,6	49,6	57,1	59,4	67,9	80,5	91,1	98,0	113,6	129,2
	EER*	(1)		2,51	2,49	2,45	2,51	2,41	2,37	2,39	2,39	2,52	2,53	2,39	2,45	2,47	2,40	2,35
	EER			2,67	2,65	2,58	2,64	2,54	2,5	2,5	2,51	2,65	2,67	2,52	2,59	2,59	2,53	2,47
	ESEER	(1)		3,83	3,79	3,86	3,94	3,90	3,81	3,87	3,78	4,05	4,00	3,96	3,91	3,96	3,87	3,65
	Water flow rate	(1)	l/h	8977	10032	10946	12919	16848	19061	20424	23568	25875	29653	33199	38543	41708	47144	52532
	Pressure drop	(1)	kPa	20	24	20	27	20	25	29	30	24	25	33	35	38	42	53
40°C / 45°C	Heating capacity	(2)	kW	56,5	63,7	70,9	82,8	110,0	122,7	137,3	156,9	168,7	193,9	218,8	245,2	274,0	313,2	349,1
	Total input power	(2)	kW	19,5	22,3	24,4	28,3	37,6	42,2	47,0	54,3	56,6	66,0	74,7	84,2	92,6	106,6	119,5
	COP*	(2)		2,90	2,85	2,91	2,93	2,92	2,91	2,92	2,89	2,98	2,94	2,93	2,91	2,96	2,94	2,92
	COP			3,16	3,12	3,14	3,15	3,17	3,16	3,13	3,09	3,19	3,16	3,18	3,16	3,18	3,15	3,11
	Water flow rate	(2)	l/h	9596	10814	12034	14050	18689	20833	23310	26639	28671	32954	37171	41666	46557	53208	59279
	Pressure drop	(2)	kPa	22	27	25	32	27	32	40	41	29	28	38	37	41	43	52
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW																	
	Pdesignh	(3)		52	59	66	77	102	114	127	146	157	180	203	228	254	291	324
	SCOP	(3)		3,28	3,20	3,28	3,30	3,30	3,28	3,33	3,25	3,35	3,35	3,33	3,28	3,35	3,30	3,33
	ηs	(3)		128	125	128	129	129	128	130	127	131	131	130	128	131	129	130
	Efficiency Energy Class			A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/
	Cooling mode for low temperature																	
	ηsc			163,2	163,5	160,3	177,1	168,5	166,0	168,4	165,9	165,0	162,6	156,2	165,3	162,2	156,4	151,4
	SEER			4,16	4,16	4,08	4,50	4,29	4,23	4,29	4,22	4,20	4,14	3,98	4,21	4,13	3,99	3,86

Date (14511:2013)

* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

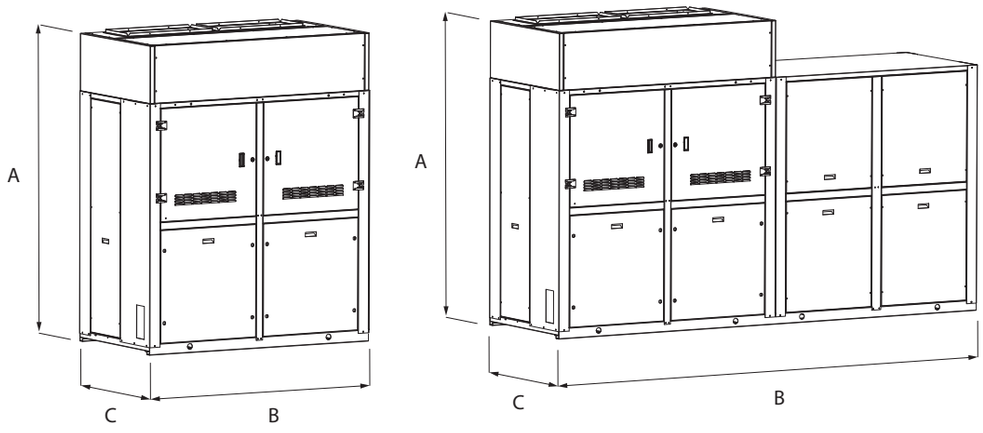
(3) Efficiencies for low temperature Applications (35°C)

Technical data

				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electrical data																		
Total input current (cooling)	HA	(4)	A	36	41	45	56	68	77	81	96	112	121	136	155	162	192	219
Total input current (heating)		(4)	A	36	40	44	54	65	74	78	91	105	114	129	145	153	179	199
Total input current (cooling)	HE	(4)	A	36	40	45	55	69	77	83	95	111	121	139	153	166	191	218
Total input current (heating)		(4)	A	36	40	44	54	65	74	78	91	105	114	129	145	153	179	199
Maximum current (FLA)		(4)	A	52	56	62	71	103	111	119	132	143	167	206	222	238	264	290
Starting current (LRA)		(4)	A	128	130	133	215	273	273	281	358	287	356	376	384	400	490	516
Compressor																		
Compressor / Circuit			n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A														
Heat exchanger system side																		
Exchanger			Type/n°	Plate/1														
Plug-fan inverter EC																		
Fans	HA		n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate (cooling)			m³/h	23000	26500	25000	27500	42000	47000	44000	50000	53000	64500	84000	94000	88400	102000	102000
Fans	HE		n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate (cooling)			m³/h	17000	19800	17200	20600	30000	35000	31400	38200	41000	48900	60000	70800	64000	77600	88000
Nominal high static pressure	All		Pa	120														
Sound data chiller (cooling mode)																		
Sound power level	HA		dB(A)	84	88	86	89	85	88	86	90	92	87	88	91	89	93	93
Sound pressure level			dB(A)	52	56	55	57	53	56	55	58	60	55	56	59	57	60	60
Sound power level	HE		dB(A)	77	81	78	82	79	81	79	83	85	79	82	84	82	86	86
Sound pressure level			dB(A)	46	49	46	50	47	49	48	51	53	47	49	52	50	54	54

(4) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions



The drawings show some of the steelwork, there is more information available in the technical documentation

Mod. NLC_H	.		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A		mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	00	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
	01÷08	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
C		mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Weight (3)	HA/HE	kg	790	790	828	832	1452	1456	1492	1507	1586	2194	2768	2783	2863	2889	2903

(3) Weight models without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Code: SNLCH0280_1250UY.06 / 1712

NSM
1402/9603
cooling only

Air/Water chillers for outdoor installation
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity 302 - 2100kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **HP FLOATING: ESEER +5% WITH INVERTER FANS**
- **NIGHT MODE**

Characteristics

Outdoor chillers for the production of chilled water with high-efficiency screw compressors, with cooling capacity adjustment via continuous modulation. Axial fans, microchannel external coils, plant side shell and tube heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

Versions
NSM_° Standard
NSM_L Standard low noise
NSM_A High efficiency
NSM_E High efficiency low noise
NSM_U Very high efficiency
NSM_N Very high efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic thermostatic as standard from size 5202÷6402 and 8403÷9603, optional for all other sizes.
- **Standard inverter fans for sizes and versions (°) from 2002 to 9603, optional for other sizes and versions.**
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 5% are obtained with inverter equipped models.**
- **Night Mode:** it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

" Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate. "

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in to low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **KRSDES/KRSREC:** Electrical resistor for desuperheater or total recovery
- **RIFNSM:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **GP:** Anti-intrusion grids
- **AK: ACOUSTIC KIT**. (only version L/E/N) This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NSM		vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1			•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX		°	900	900	900	904	904	904	904	904	904	905	905	908	908	911	911	909
		L	901	901	901	904	905	905	905	903	903	903	903	909	909	907	907	912
		A	901	901	901	904	905	905	905	903	903	903	903	909	909	907	907	912
		E	901	901	902	905	905	903	903	906	906	906	906	907	907	912	910	910
		U	901	901	902	905	905	903	903	906	906	906	906	907	907	912	910	910
		N	902	902	903	903	903	906	906	907	907	907	907	912	910	913	913	917
Accessories factory fitted only																		
KRS	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KRS_DES	(1)(2)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KRS_REC	(1)(2)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIFNSM	(1)		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(3)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

			4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1			•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET			•	•	•	•	•	•	•	•	•	•	•
PRV3			•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)		•	•	•	•	•	•	•	•	•	•	•
AVX		°	909	907	907	907	912	914	914	915	916	916	916
		L	912	912	910	913	913	924	924	925	925	927	926
		A	912	912	910	913	913	924	924	925	925	927	926
		E	913	913	920	917	918	925	927	927	928	-	-
		U	913	913	920	917	918	925	927	927	928	-	-
		N	918	919	921	922	923	926	-	-	-	-	-
Accessories factory fitted only													
KRS	(1)		•	•	•	•	•	•	•	•	•	•	•
KRS_DES	(1)(2)		•	•	•	•	•	•	•	•	•	•	•
KRS_REC	(1)(2)		•	•	•	•	•	•	•	•	•	•	•
RIFNSM	(1)		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
GP	(1)		•	•	•	•	•	•	•	•	•	•	•
AK	(3)		•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(2) The accessory is standard equipped with the electric resistance for the evaporator also
(3) The accessory is only available for the "L/E/N" silenced versions
(x2) Indicates the amount to order

Note:

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NSM**

4,5,6,7 **Sizes**

1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 **(dual circuit)**
3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 **(dual circuit)**
6503-6703-6903-7203-8403-9603 **(triple circuit)**

8 **Operational limits**

- **°** Standard (temperature of water produced up to +4 °C)
- **Y** Low temperature (temperature of water produced from +4°C a -8°C) **(4)**
- **X** Electronic thermostatic valve (temperature of water produced up to +4 °C) **(5)**
- **Z** Low temperature electronic thermostatic valve (temperature of water produced from +4°C a -8°C) **(4)**

9 **Model**

- **°** Cooling Only
- **C** Motor condensing unit **(6)**

10 **Heat recovery**

- **°** Without heat recovery
- **D** With desuperheater
- **T** With total recovery **(7)**

11 **Version**

- **°** Standard
- **L** Low noise Standard
- **A** High efficiency
- **E** Low noise high efficency
- **U** Very high efficiency
- **N** Low noise very high efficiency

12 **Coils**

- **°** Aluminium microchannel
- **O** Painted aluminium microchannel
- **R** Copper - Copper
- **S** Copper - Thinned

13 **Fans**

- **°** Standard (standard for size up 1402 to 1802)
- **M** increased **(8)**
- **J** Inverter (standard for size up 1402 to 1802)

14 **Power supply**

- **°** 400V/3/50Hz with fuses
- **8** 400V/3/50Hz with magnet circuit breakers
- **2** 230V/3/50Hz with fuses **(9)**
- **4** 230V/3/50Hz with magnet circuit breakers **(9)**
- **5** 500V/3/50Hz with fuses **(10)**
- **9** 500V/3/50Hz with magnet circuit breakers **(10)**

15-16 **Integrated hydronic kit**

- **00** Without hydronic kit
- **PA** Pumping unit (pump A)
- **PB** Pumping unit (pump B)
- **PC** Pumping unit (pump C)
- **PD** Pumping unit (pump D)
- **PE** Pumping unit (pump E)
- **PF** Pumping unit (pump F)
- **PG** Pumping unit (pump G)
- **PH** Pumping unit (pump H)
- **PI** Pumping unit (pump I)
- **PJ** Pumping unit (pump J)
- **DA** Pumping unit (pump A and stand-by pump)
- **DB** Pumping unit (pump B and stand-by pump)
- **DC** Pumping unit (pump C and stand-by pump)
- **DD** Pumping unit (pump D and stand-by pump)
- **DE** Pumping unit (pump E and stand-by pump)
- **DF** Pumping unit (pump F and stand-by pump)
- **DG** Pumping unit (pump G and stand-by pump)
- **DH** Pumping unit (pump H and stand-by pump)
- **DI** Pumping unit (pump I and stand-by pump)
- **DJ** Pumping unit (pump J and stand-by pump)

Operation of pumps in parallel

- **TF** Double static pressure pump (pump F)
- **TG** Double static pressure pump (pump G)
- **TH** Double static pressure pump (pump H)
- **TI** Double static pressure pump (pump I)
- **TJ** Double static pressure pump (pump J)

(4) The Y/Z option is not compatible with motor condensing units C; with option D and T
(5) sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve
(6) The motor condensing units are not configurable with option D and T, and with the integrated hydronic kit
(7) The models 1402° - 1602° - 1802° with total recovery are not configurable with the integrated hydronic kit
(8) **Increased fans M They are not configurable in size and versions:**

VERSION "°"	Up NSM2652 to 9603
VERSIONS "A/L"	Up NSN5202 to 6402
VERSIONS "A/L"	NSM 9603

(9) 230V/3/50Hz available only for sizes from 1402÷2202
(10) 500V/3/50Hz available only for sizes from 1402÷3202

Technical Data

NSM - °			1402	1602	1802	2002*	2202*	2352*	2502*	2652*	2802*	3002*	3202*	3402*	3602*	3902*
V/ph/Hz			400V/3/50Hz													
12°C / 7°C	Cooling capacity	(1) kW	307,0	348,1	396,1	449,1	487,8	524,0	543,0	576,2	612,6	679,0	723,4	768,0	812,0	903,8
	Total input power	(1) kW	104,8	121,0	139,0	152,8	166,4	180,6	193,9	210,5	226,5	232,7	247,5	272,1	298,3	316,2
	EER	(1)	2,93	2,88	2,85	2,94	2,93	2,90	2,80	2,74	2,70	2,92	2,92	2,82	2,72	2,86
	ESEER	(1)	3,85	3,85	3,80	3,90	3,90	3,85	3,85	3,80	3,80	3,90	3,85	3,85	3,80	3,90
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	52940	60070	68350	77550	84280	90320	93610	99370	105660	117140	124820	132560	140070	155970
	Total pressure drops	(1) kPa	27	36	38	49	57	26	28	33	35	39	42	47	38	46
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		3,89	3,90	3,86	4,11	4,10	4,11	4,11	4,11	4,11	4,11	4,11	4,11	4,11	4,10
	ηsc		152,5	152,9	151,4	161,4	161,1	161,3	161,3	161,2	161,2	161,4	161,2	161,5	161,4	161,0

* Units with Inverter fans

NSM - L			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C	Cooling capacity	(1) kW	301,9	343,3	391,8	427,6	490,2	513,0	536,5	582,2	601,7	663,0	708,1	770,0	824,9	907,1
	Total input power	(1) kW	102,7	117,2	135,7	155,9	167,8	179,5	192,6	202,9	215,4	238,4	261,2	265,4	296,7	316,1
	EER	(1)	2,94	2,93	2,89	2,74	2,92	2,86	2,79	2,87	2,79	2,78	2,71	2,90	2,78	2,87
	ESEER	(1)	3,98	3,95	3,87	3,88	3,93	3,92	3,92	3,92	3,94	3,90	3,89	3,94	3,92	3,92
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	52070	59230	67610	73680	84500	88440	92500	100420	103770	114370	122040	132690	142180	156420
	Total pressure drops	(1) kPa	27	36	38	18	24	25	28	33	31	36	23	23	25	32
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		4,02	4,00	3,94	4,11	4,11	4,10	4,12	4,12	4,11	4,11	4,11	4,11	4,11	4,10
	ηsc	%	157,7	156,9	154,4	161,4	161,3	161,2	161,6	161,6	161,5	161,4	161,4	161,4	161,2	161,0

NSM - A			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C	Cooling capacity	(1) kW	315,0	359,4	414,2	460,8	508,7	544,0	575,8	619,6	657,5	697,8	740,6	799,5	882,8	953,2
	Total input power	(1) kW	99,0	113,7	133,7	148,3	161,8	173,6	183,3	197,5	208,3	223,6	237,4	253,4	281,2	303,8
	EER	(1)	3,18	3,16	3,10	3,11	3,14	3,13	3,14	3,14	3,16	3,12	3,12	3,15	3,14	3,14
	ESEER	(1)	4,07	4,04	3,96	3,97	4,02	4,01	4,02	4,01	4,03	3,99	3,99	4,03	4,01	4,01
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	54340	62020	71500	79420	87700	93790	99310	106880	113420	120390	127660	137790	152180	164390
	Total pressure drops	(1) kPa	30	39	43	21	26	28	32	37	37	40	25	25	29	36
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		4,10	4,08	4,12	4,11	4,14	4,14	4,15	4,14	4,14	4,12	4,13	4,14	4,12	4,11
	ηsc	%	161,0	160,1	161,7	161,4	162,7	162,3	162,8	162,7	162,5	161,9	162,2	162,7	161,6	161,4

NSM - E			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C	Cooling capacity	(1) kW	319,3	368,2	417,1	471,9	513,5	542,4	578,7	614,3	651,2	694,3	739,5	795,4	880,3	949,9
	Total input power	(1) kW	101,7	117,4	132,3	150,0	165,4	173,7	185,9	194,7	210,1	223,9	238,5	255,3	283,7	305,6
	EER	(1)	3,14	3,14	3,15	3,15	3,11	3,12	3,11	3,15	3,10	3,10	3,10	3,12	3,10	3,11
	ESEER	(1)	4,15	4,12	4,15	4,09	4,05	4,13	4,09	4,13	4,09	4,09	4,07	4,09	4,08	4,09
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	55020	63440	71880	81320	88500	93500	99770	105880	112240	119690	127460	137080	151730	163810
	Total pressure drops	(1) kPa	15	14	18	21	24	26	30	24	26	29	26	25	29	36
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		4,20	4,19	4,23	4,16	4,11	4,19	4,15	4,20	4,17	4,16	4,14	4,18	4,18	4,19
	ηsc	%	165,1	164,6	166,0	163,2	161,2	162,5	163,0	165,1	163,7	163,5	162,5	164,2	164,2	164,4

NSM - U			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C	Cooling capacity	(1) kW	330,8	377,8	431,6	481,1	526,9	563,7	589,4	634,0	674,2	707,0	749,6	810,0	900,9	973,5
	Total input power	(1) kW	98,6	113,5	128,9	145,7	161,0	169,2	178,4	190,3	204,2	214,1	228,0	245,2	273,3	294,9
	EER	(1)	3,36	3,33	3,35	3,30	3,27	3,33	3,30	3,33	3,30	3,30	3,29	3,30	3,30	3,30
	ESEER	(1)	4,25	4,21	4,24	4,18	4,14	4,22	4,18	4,22	4,18	4,18	4,16	4,18	4,17	4,18
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	57000	65100	74380	82910	90820	97200	101640	109280	116220	121900	129220	139610	155320	167910
	Total pressure drops	(1) kPa	17	15	19	21	25	28	31	25	28	30	26	26	30	37
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		4,29	4,28	4,32	4,24	4,19	4,27	4,24	4,29	4,26	4,25	4,23	4,27	4,27	4,28
	ηsc	%	168,7	168,2	169,6	166,7	164,7	166,2	166,6	168,6	167,2	167,1	166,1	167,8	167,9	168,0

NSM - N			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C	Cooling capacity	(1) kW	329,5	375,1	431,4	473,9	516,2	550,0	577,6	619,5	658,2	700,0	742,1	801,9	878,1	953,4
	Total input power	(1) kW	98,1	113,2	127,6	144,8	160,4	168,7	178,2	190,1	204,5	217,3	231,1	247,6	270,2	292,6
	EER	(1)	3,36	3,31	3,38	3,27	3,22	3,26	3,24	3,26	3,22	3,22	3,21	3,24	3,25	3,26
	ESEER	(1)	4,27	4,21	4,30	4,16	4,09	4,14	4,12	4,14	4,09	4,09	4,08	4,12	4,11	4,11
	ESEER HP floating		ESEER improvements of up to 5%													
	Water flow rate	(1) l/h	56780	64620	74340	81660	88980	94830	99590	106780	113450	120680	127920	138210	151390	164440
	Total pressure drops	(1) kPa	16	15	19	21	24	28	30	25	27	29	26	25	30	37
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER		4,32	4,28	4,37	4,23	4,15	4,20	4,18	4,22	4,17	4,17	4,15	4,21	4,21	4,21
	ηsc	%	169,6	168,1	171,9	166,0	162,8	164,9	164,1	165,6	163,7	163,7	163,0	165,3	165,4	165,3

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C

Technical Data

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electrical data																	
Total input current (cooling)	°	(2)	A	182	207	229	257	281	306	329	356	381	392	414	447	484	520
Maximum current (FLA)			A	229	257	284	324	357	379	400	433	458	466	466	514	562	619
Starting current (LRA)			A	251	292	335	380	403	450	467	502	512	521	521	645	685	814
Total input current (cooling)	L	(2)	A	173	196	218	254	277	297	319	336	354	391	426	429	473	509
Maximum current (FLA)			A	235	263	291	324	364	385	406	437	462	462	462	516	564	619
Starting current (LRA)			A	257	299	342	380	409	456	473	507	517	517	517	647	687	814
Total input current (cooling)	A	(2)	A	175	198	223	250	278	298	314	340	355	378	399	421	459	502
Maximum current (FLA)			A	235	263	291	324	364	385	406	437	462	462	462	516	564	619
Starting current (LRA)			A	257	299	342	380	409	456	473	507	517	517	517	647	687	814
Total input current (cooling)	E	(2)	A	171	196	214	245	272	288	309	324	347	367	389	411	450	490
Maximum current (FLA)			A	235	263	297	330	364	391	413	444	468	468	468	523	571	625
Starting current (LRA)			A	257	299	348	386	409	462	480	513	523	523	523	653	693	821
Total input current (cooling)	U	(2)	A	173	197	218	248	275	292	309	330	352	366	387	410	448	490
Maximum current (FLA)			A	235	263	297	330	364	391	413	444	468	468	468	523	571	625
Starting current (LRA)			A	257	299	348	386	409	462	480	513	523	523	523	653	693	821
Total input current (cooling)	N	(2)	A	165	190	207	237	265	281	297	317	339	358	378	399	429	470
Maximum current (FLA)			A	242	270	303	337	370	398	419	450	475	475	475	529	583	644
Starting current (LRA)			A	263	305	354	392	415	469	486	519	529	529	529	660	706	839
Two screw Compressors																	
Compressor / Circuit			n°	2/2													
Refrigerant			Type	R134a													
Shell & tube system side exchanger																	
Exchanger			n°	1													
hydraulic connections (In/Out)			Ø	Please refer to technical documentation													
Axial fans																	
Fan	°		n°	6	6	6	8*	8*	8*	8*	8*	8*	10*	10*	10*	10*	12*
Air flow rate			m³/h	96000	96000	96000	128000	128000	128000	128000	144000	144000	180000	180000	180000	180000	216000
Fan	L		n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
Air flow rate			m³/h	92000	92000	92000	92000	115000	115000	115000	138000	138000	138000	138000	161000	161000	184000
Fan	A		n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
Air flow rate			m³/h	128000	128000	128000	128000	160000	160000	160000	192000	192000	192000	192000	224000	224000	256000
Fan	E		n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
Air flow rate			m³/h	92000	92000	115000	115000	115000	138000	138000	161000	161000	161000	161000	184000	184000	207000
Fan	U		n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
Air flow rate			m³/h	128000	128000	160000	160000	160000	192000	192000	224000	224000	224000	224000	256000	256000	288000
Fan	N		n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate			m³/h	115000	115000	138000	138000	138000	161000	161000	184000	184000	184000	184000	207000	230000	253000
Sound data																	
Sound power level	°		dB(A)	96,8	97,0	97,2	97,6	97,8	98,0	98,2	98,4	98,4	99,4	99,5	99,6	99,8	100,7
	L		dB(A)	88,9	89,0	89,1	89,2	90,3	90,5	90,6	90,8	90,9	91,0	91,1	91,3	91,4	92,4
	A		dB(A)	97,3	97,4	97,8	97,9	98,2	98,3	98,4	98,8	98,9	99,0	99,1	99,3	99,4	100,1
	E		dB(A)	89,3	89,4	90,2	90,3	90,4	90,8	91,2	91,8	92,0	92,2	92,3	92,8	93,0	93,2
	U		dB(A)	97,0	97,4	98,0	98,2	98,4	98,8	98,8	99,0	99,1	99,2	99,3	99,9	100,0	100,4
	N		dB(A)	90,0	90,4	90,9	91,0	91,1	91,4	91,4	92,1	92,2	92,3	92,4	92,8	93,1	93,3
Sound pressure level	°		dB(A)	64,4	64,6	64,8	65,2	65,3	65,5	65,7	65,8	65,8	66,8	66,9	66,8	67,0	67,8
	L		dB(A)	56,5	56,6	56,6	56,7	57,8	57,9	58,0	58,0	58,1	58,2	58,3	58,4	58,5	59,4
	A		dB(A)	64,8	64,9	65,2	65,3	65,6	65,5	65,6	65,9	66,0	66,1	66,2	66,3	66,3	66,9
	E		dB(A)	57,2	57,3	58,1	58,2	58,2	58,6	59,0	59,5	59,7	59,9	60,0	60,4	60,6	60,7
	U		dB(A)	64,9	65,3	65,8	66,0	66,2	66,5	66,5	66,6	66,7	66,8	66,9	67,4	67,5	67,7
	N		dB(A)	57,8	58,2	58,6	58,7	58,8	59,0	59,0	59,6	59,7	59,8	59,9	60,1	60,3	60,4

* Units with Inverter fans

(2) Unit standard configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

(1) The electrical data of the versions without hydronic module integrated

Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Technical Data

NSM - °				4202*	4502*	4802*	5202*	5602*	6002*	6402*	6503*	6703*	6903*	7203*	8403*	9603*
	V/ph/Hz			400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	956,3	1048,3	1096,5	1165,1	1191,8	1233,9	1323,0	1390,4	1436,1	1576,0	1666,7	1738,7	1855,8
	Total input power	(1)	kW	345,9	360,3	388,1	403,4	430,8	453,1	460,3	488,6	517,2	559,8	575,1	659,2	730,6
	EER	(1)		2,76	2,91	2,82	2,89	2,77	2,72	2,87	2,85	2,78	2,82	2,90	2,64	2,54
	ESEER	(1)		3,80	3,90	3,85	3,90	3,85	3,80	3,85	3,90	3,80	3,85	3,85	3,80	3,80
	ESEER HP floating			ESEER improvements of up to 5%												
	Water flow rate	(1)	l/h	164980	180930	189160	201040	205680	213030	228500	239870	247790	271650	287330	299790	320050
	Total pressure drops	(1)	kPa	41	48	42	46	48	55	62	44	46	30	33	36	40
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,11	4,11	4,11	4,20	4,10	4,11	4,11	4,16	4,10	4,13	4,13	4,12	4,10
	ηsc		%	161,2	161,3	161,3	164,8	161,1	161,4	161,4	163,4	161,1	162,2	162,1	161,9	161,0

* Units with Inverter fans

NSM - L				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Potenza frigorifera	(1)	kW	947,7	1029,9	1073,9	1120,4	1181,1	1251,3	1292,0	1392,5	1433,8	1601,0	1644,9	1754,4	1941,4
	Potenza assorbita	(1)	kW	348,8	365,9	395,2	428,9	442,5	453,5	476,7	491,5	523,7	557,0	586,8	660,5	714,0
	EER	(1)		2,72	2,81	2,72	2,61	2,67	2,76	2,71	2,83	2,74	2,87	2,80	2,66	2,72
	ESEER	(1)		3,87	3,89	3,89	3,88	3,90	3,89	3,87	3,91	3,87	3,92	3,90	3,87	3,89
	ESEER HP flottante			ESEER improvements of up to 5%												
	Portata d'acqua	(1)	l/h	163450	177710	185350	193220	203720	215910	222970	240090	247230	276220	283850	302520	334990
	Perdite di carico	(1)	kPa	34	44	46	33	36	42	45	33	34	45	47	34	45
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,12	4,11	4,11	4,10	4,12	4,11	4,10	4,12	4,12	4,12	4,10	4,11	4,11
	ηsc		%	161,6	161,2	161,2	161,1	161,7	161,4	161,1	161,7	161,8	161,9	161,1	161,3	161,3

NSM - A				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Potenza frigorifera	(1)	kW	1019,5	1081,5	1156,7	1210,6	1272,8	1348,6	1398,6	1459,2	1528,5	1678,3	1748,2	1904,3	2100,3
	Potenza assorbita	(1)	kW	328,5	347,0	371,7	389,2	410,5	432,6	451,5	466,3	493,4	534,6	560,2	614,3	673,3
	EER	(1)		3,10	3,12	3,11	3,11	3,10	3,12	3,10	3,13	3,10	3,14	3,12	3,10	3,12
	ESEER	(1)		3,97	3,98	3,98	3,97	3,99	3,98	3,96	4,00	3,96	4,01	3,99	3,96	3,99
	ESEER HP flottante			ESEER improvements of up to 5%												
	Portata d'acqua	(1)	l/h	175850	186660	199680	208790	219570	232740	241410	251620	263620	289610	301740	328430	362460
	Perdite di carico	(1)	kPa	39	49	53	38	42	49	52	36	39	49	53	41	52
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,14	4,13	4,13	4,12	4,16	4,15	4,12	4,15	4,15	4,16	4,13	4,12	4,14
	ηsc		%	162,5	162,3	162,0	161,9	163,2	162,8	161,7	163,0	162,8	163,2	162,1	161,9	162,5

NSM - E				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Potenza frigorifera	(1)	kW	1016,7	1079,3	1156,9	1204,2	1263,6	1320,3	1387,4	1462,1	1524,8	1665,9	1748,5	-	-
	Potenza assorbita	(1)	kW	325,9	347,2	370,8	387,7	405,5	422,1	443,6	469,3	488,9	534,2	562,7	-	-
	EER	(1)		3,12	3,11	3,12	3,11	3,12	3,13	3,13	3,12	3,12	3,12	3,11	-	-
	ESEER	(1)		4,09	4,05	4,10	4,01	4,02	4,02	4,10	4,10	4,12	4,01	4,05	-	-
	ESEER HP flottante			ESEER improvements of up to 5%												
	Portata d'acqua	(1)	l/h	175370	186260	199490	207680	217720	227490	239130	252090	262970	287420	301590	-	-
	Perdite di carico	(1)	kPa	40	49	36	38	24	24	29	35	40	49	45	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,19	4,14	4,21	4,12	4,14	4,15	4,23	4,26	4,28	4,14	4,20	-	-
	ηsc		%	164,5	162,5	165,2	161,8	162,7	163,1	166,2	167,4	168,2	162,6	164,9	-	-

NSM - U				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Potenza frigorifera	(1)	kW	1040,9	1101,5	1182,1	1231,2	1299,3	1358,8	1417,1	1502,4	1575,6	1688,6	1768,1	-	-
	Potenza assorbita	(1)	kW	315,2	336,8	357,4	380,5	400,8	418,5	427,8	453,3	472,9	522,1	540,7	-	-
	EER	(1)		3,30	3,27	3,31	3,24	3,24	3,25	3,31	3,31	3,33	3,23	3,27	-	-
	ESEER	(1)		4,18	4,14	4,18	4,09	4,10	4,11	4,19	4,19	4,22	4,09	4,14	-	-
	ESEER HP flottante			ESEER improvements of up to 5%												
	Portata d'acqua	(1)	l/h	179580	190140	203880	212380	223920	234170	244270	259100	271780	291410	305050	-	-
	Perdite di carico	(1)	kPa	42	51	38	40	26	26	31	37	42	51	46	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,28	4,23	4,30	4,21	4,23	4,24	4,32	4,34	4,36	4,23	4,29	-	-
	ηsc		%	168,0	166,2	168,8	165,2	166,3	166,6	169,8	170,7	171,5	166,2	168,4	-	-

NSM - N				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Potenza frigorifera	(1)	kW	1012,1	1084,0	1166,7	1216,0	1265,2	1315,1	1365,0	1449,6	-	-	-	-	-
	Potenza assorbita	(1)	kW	315,6	332,8	352,6	374,6	396,5	410,4	428,2	450,1	-	-	-	-	-
	EER	(1)		3,21	3,26	3,31	3,25	3,19	3,20	3,19	3,22	-	-	-	-	-
	ESEER	(1)		4,07	4,09	4,10	4,13	4,05	4,07	4,05	4,09	-	-	-	-	-
	ESEER HP flottante			ESEER improvements of up to 5%												
	Portata d'acqua	(1)	l/h	174590	186920	201310	209810	218040	226640	235280	249980	-	-	-	-	-
	Perdite di carico	(1)	kPa	40	35	44	44	26	26	30	37	-	-	-	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,17	4,20	4,20	4,23	4,18	4,20	4,18	4,24	-	-	-	-	-
	ηsc		%	163,9	164,9	165,0	166,3	164,3	165,1	164,2	166,7	-	-	-	-	-

Date (14511:2013)
- Version not available for this size
(1) Water evaporator 12°C/7°C, External air 35°C

				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electrical data																
Total input current (cooling)		(2)	A	573	597	641	668	712	749	766	806	857	927	966	1103	1230
Maximum current (FLA)	°		A	667	714	753	805	848	882	924	949	997	1084	1137	1266	1368
Starting current (LRA)			A	841	914	936	1100	1147	1259	1264	1038	1065	1160	1197	1446	1552
Total input current (cooling)		(2)	A	567	593	638	693	716	736	776	793	849	914	960	1067	1163
Maximum current (FLA)	L		A	667	712	751	813	865	913	947	955	1003	1094	1133	1268	1406
Starting current (LRA)			A	841	911	934	1108	1164	1290	1287	1044	1071	1170	1193	1448	1590
Total input current (cooling)		(2)	A	547	577	614	647	685	725	758	772	821	897	936	1017	1132
Maximum current (FLA)	A		A	667	712	751	813	865	913	947	955	1003	1094	1133	1268	1406
Starting current (LRA)			A	841	911	934	1108	1164	1290	1287	1044	1071	1170	1193	1448	1590
Total input current (cooling)		(2)	A	529	560	598	628	656	686	724	764	792	861	898	-	-
Maximum current (FLA)	E		A	679	718	770	813	862	902	943	968	1022	1100	1145	-	-
Starting current (LRA)			A	854	918	953	1108	1161	1279	1283	1056	1090	1176	1205	-	-
Total input current (cooling)		(2)	A	530	562	597	634	671	706	725	762	795	870	896	-	-
Maximum current (FLA)	U		A	679	718	770	813	862	902	943	968	1022	1100	1145	-	-
Starting current (LRA)			A	854	918	953	1108	1161	1279	1283	1056	1090	1176	1205	-	-
Total input current (cooling)		(2)	A	513	540	569	605	643	668	700	731	-	-	-	-	-
Maximum current (FLA)	N		A	692	743	789	838	887	921	955	987	-	-	-	-	-
Starting current (LRA)			A	866	943	972	1133	1186	1298	1295	1076	-	-	-	-	-
Two screw Compressors																
Compressor / Circuit	°		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	L		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	A		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	E		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	-	-
	U		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	-	-
	N		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	-	-	-	-	-
Refrigerant			Type	R134a												
Shell & tube system side exchanger																
Exchanger	°		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
	L		n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	A		n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	E		n°	1	1	1	1	2	2	2	2	2	2	2	-	-
	U		n°	1	1	1	1	2	2	2	2	2	2	2	-	-
	N		n°	1	2	2	2	2	2	2	2	-	-	-	-	-
hydraulic connections (In/Out)			Ø	Please refer to technical documentation												
Ventilatori assiali																
Fan	°		n°	12*	14*	14*	16*	16*	16*	18*	18*	18*	20*	22*	22*	22*
Air flow rate			m³/h	216000	252000	252000	288000	288000	288000	324000	324000	324000	360000	396000	396000	396000
Fan	L		n°	16	18	18	18	20	22	22	24	24	28	28	30	34
Air flow rate			m³/h	184000	207000	207000	234000	260000	286000	286000	276000	276000	322000	322000	345000	442000
Fan	A		n°	16	18	18	18	20	22	22	24	24	28	28	30	34
Air flow rate			m³/h	256000	288000	288000	324000	360000	396000	396000	384000	384000	448000	448000	480000	612000
Fan	E		n°	20	20	22	22	24	26	28	28	30	30	32	-	-
Air flow rate			m³/h	230000	230000	253000	253000	276000	299000	322000	322000	345000	345000	368000	-	-
Fan	U		n°	20	20	22	22	24	26	28	28	30	30	32	-	-
Air flow rate			m³/h	320000	320000	352000	352000	384000	416000	448000	448000	480000	480000	512000	-	-
Fan	N		n°	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate			m³/h	253000	299000	322000	345000	368000	368000	368000	391000	-	-	-	-	-
Sound data																
Sound power level	°		dB(A)	100,8	101,2	101,3	101,7	101,7	101,8	102,1	102,3	102,4	103,0	103,1	103,2	103,3
	L		dB(A)	92,5	93,0	93,1	93,2	93,7	93,9	94,0	94,2	94,2	94,3	94,3	94,4	95,0
	A		dB(A)	100,2	100,4	100,8	101,5	101,7	101,9	102,0	102,0	102,1	102,3	102,4	103,3	104,4
	E		dB(A)	93,5	93,6	93,7	93,8	93,9	94,0	94,2	94,3	94,3	94,4	94,8	-	-
	U		dB(A)	100,7	101,0	101,3	101,6	102,0	102,1	102,2	102,2	102,3	102,4	102,4	-	-
	N		dB(A)	93,4	94,3	94,4	94,8	95,0	95,2	95,3	95,4	-	-	-	-	-
Sound pressure level	°		dB(A)	67,9	68,2	68,3	68,7	68,6	68,6	68,9	68,9	69,0	69,4	69,5	69,5	69,4
	L		dB(A)	59,4	59,9	59,9	60,0	60,3	60,4	60,4	60,6	60,5	60,6	60,5	62,7	63,3
	A		dB(A)	67,0	66,9	67,2	67,8	67,9	68,1	68,2	68,1	70,4	70,6	70,7	71,6	72,7
	E		dB(A)	61,0	60,9	61,0	61,1	61,1	61,1	61,3	61,3	61,3	61,1	61,5	-	-
	U		dB(A)	67,9	68,2	68,4	68,7	69,0	69,0	68,9	68,9	68,9	69,0	68,9	-	-
	N		dB(A)	60,5	61,2	61,1	61,4	61,5	61,7	61,8	61,8	-	-	-	-	-

* Units with Inverter fans

- Version not available for this size

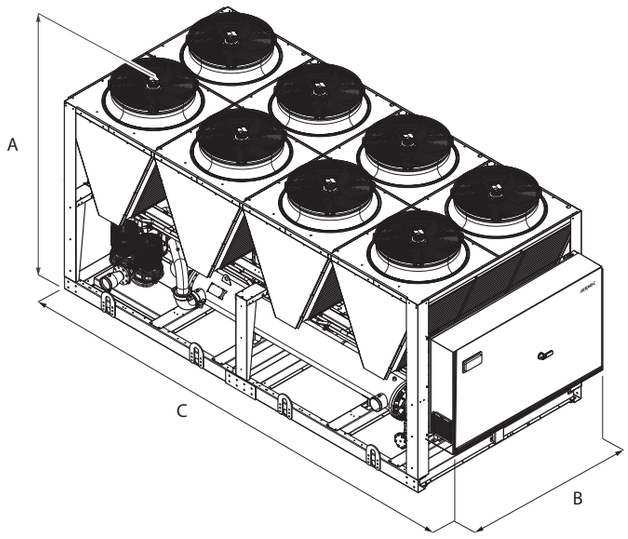
(2) The electrical data of the versions without hydronic module integrated

Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



Mod. NSM		Vers	1402	1602	1802	2002	2202	2352	2502	2652
A	(mm)	all	2450	2450	2450	2450	2450	2450	2450	2450
B	(mm)	all	2200	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	3970	3970	3970	5160	5160	5160	5160	5160
		L	5160	5160	5160	5160	6350	6350	6350	7140
		A	5160	5160	5160	5160	6350	6350	6350	7140
		E	5160	5160	6350	6350	6350	7140	7140	8330
		U	5160	5160	6350	6350	6350	7140	7140	8330
		N	6350	6350	7140	7140	7140	8330	8330	9520

Mod. NSM		Vers	2802	3002	3202	3402	3602	3902	4202	4502
A	(mm)	all	2450	2450	2450	2450	2450	2450	2450	2450
B	(mm)	all	2200	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	5160	6350	6350	6350	6350	7140	7140	8330
		L	7140	7140	7140	8330	8330	9520	9520	10710
		A	7140	7140	7140	8330	8330	9520	9520	10710
		E	8330	8330	8330	9520	9520	10710	11900	11900
		U	8330	8330	8330	9520	9520	10710	11900	11900
		N	9520	9520	9520	10710	11900	13090	13090	15470

Mod. NSM		Vers	4802	5202	5602	6002	6402	6503	6703	6903
A	(mm)	all	2450	2450	2450	2450	2450	2450	2450	2450
B	(mm)	all	2200	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	8330	9520	9520	9520	10710	11110	11110	11900
		L	10710	10710	11900	13090	13090	14280	14280	16660
		A	10710	10710	11900	13090	13090	14280	14280	16660
		E	13090	13090	14280	15470	16660	16660	17850	17850
		U	13090	13090	14280	15470	16660	16660	17850	17850
		N	16660	17850	19040	19040	19040	20230	-	-

Mod. NSM		Vers	7203	8403	9603
A	(mm)	all	2450	2450	2450
B	(mm)	all	2200	2200	2200
C	(mm)	°	13090	13090	13090
		L	16660	17850	20230
		A	16660	17850	20230
		E	19040	-	-
		U	19040	-	-
		N	-	-	-

For transport reasons, the sizes of the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Cod.: SNSM11402_9603_co_ce_UY.00 / 1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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www.aermec.com

NSMI

1251/5202

cooling only

Air/Water inverter chillers for outdoor installation
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity 285 - 1201 kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **LOW ELECTRICAL CONSUMPTION**

Features

The NSMI are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers.
The base, the structure and the panels are made of steel treated with rustproof polyester paint.
Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

Versions
NSMI_A High efficiency
NSMI_E High efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4dB
- Microprocessor adjustment

- **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load.
  Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET:**
  the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **KRSDES:** Electrical resistor for desuperheater
- **GP:** Anti-intrusion grids.

Accessories compatibility

Mod. NSMI	vers.	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
AER485P1		•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only														
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
KRS_DES	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(x2) Indicates the amount to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field		Description
1,2,3,4		**NSMI**
5,6,7,8		**Size**
		1251-1601-1801 **(single circuit)**
		2352-2652-2802-3202-3402-3802-4102-4402-4802-5202 **(dual circuit)**
9		**Model**
	°	Only cooling
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Version**
	A	High efficiency
	E	Low noise high efficency
12		**Coils**
	°	Aluminium microchannel
	O	Painted aluminium microchannel
	R	Copper - Copper
	S	Copper - Thinned
	V	Copper Painted aluminium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V/3/50Hz fuses
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pumping unit (pump A)
	PB	Pumping unit (pump B)
	PC	Pumping unit (pump C)
	PD	Pumping unit (pump D)
	PE	Pumping unit (pump E)
	PF	Pumping unit (pump F)
	PG	Pumping unit (pump G)
	PH	Pumping unit (pump H)
	PI	Pumping unit (pump I)
	PJ	Pumping unit (pump J)
	DA	Pumping unit (pump A and stand-by pump)
	DB	Pumping unit (pump B and stand-by pump)
	DC	Pumping unit (pump C and stand-by pump)
	DD	Pumping unit (pump D and stand-by pump)
	DE	Pumping unit (pump E and stand-by pump)
	DF	Pumping unit (pump F and stand-by pump)
	DG	Pumping unit (pump G and stand-by pump)
	DH	Pumping unit (pump H and stand-by pump)
	DI	Pumping unit (pump I and stand-by pump)
	DJ	Pumping unit (pump J and stand-by pump)

Technical Data

NSMI - A/E				1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
	V/ph/Hz			400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	285	382	463	519	605	658	724	801	841	946	1006	1108	1201
	Total input power	(1)	kW	91	120	149	167	194	212	233	257	270	305	325	356	397
	EER	(1)		3,12	3,17	3,10	3,10	3,11	3,10	3,11	3,11	3,12	3,10	3,10	3,11	3,02
	ESEER	(1)		4,75	4,73	4,71	4,70	4,73	4,71	4,73	4,73	4,74	4,72	4,71	4,71	4,70
	Water flow rate	(1)	l/h	49130	65700	79773	89247	104092	113376	124682	137945	144852	162983	173442	191110	207270
	Pressure drop	(1)	kPa	45	15	21	18	25	28	33	27	30	39	45	38	44
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,51	4,59	4,56	4,73	4,75	4,74	4,75	4,78	4,78	4,75	4,73	4,75	4,67
	ηsc		%	177,5	180,7	179,3	186,0	187,1	179,3	186,9	188,0	188,1	186,9	186,3	186,9	183,6

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

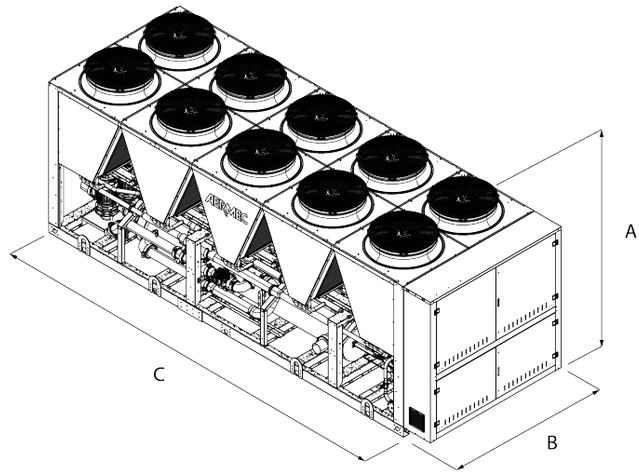
				1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
Electrical data																
Total input current (cooling)	FA/FE	(3)		155	200	245	293	337	360	393	431	443	517	547	619	665
Maximum current (FLA)		(3)		251	291	378	442	473	519	519	567	654	708	753	874	917
Starting current (LRA)		(3)		51	51	58	572	605	651	651	775	862	989	1059	1180	1335
Compressors - Screw																
Compressors / Circuit			n°	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant			Type	R134a												
Heat exchanger system side																
Heat exchanger			Type/n°	Shell&tube/1												
Axial fans																
Fan			Type/n°	8	8	10	10	12	14	14	14	16	18	20	22	22
Air flow rate (cooling)			m³/h	128000	128000	160000	160000	192000	224000	224000	224000	256000	288000	320000	396000	396000
Sound data (cooling)																
Sound power level	A		dB(A)	97	99	99	99	99	100	100	100	100	100	101	103	103
	E		dB(A)	93	96	96	95	95	96	96	97	97	98	98	100	100

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



NSMI A/E			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
A	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	All	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090

Cod.: SNSMI1251_5202_co_ceUY.00 / 1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

NSH
1251/2002
Heat pump

Reversible heat pumps
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 235 - 730kW
Heating capacity 276 - 789kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

AERMEC partecipates in the EUROVENT programme for:LCP
Check ongoing validity of certificate online:
www.eurovent-certification.com



- **STANDARD VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/2 REFRIGERANT CIRCUIT**
- **OPTION VERSION WITH BUILT–IN HYDRONIC KIT**
- **ELECTRONIC EXPANSION VALVE**

Characteristics

- Reversible heat pumps

Version

NS_H Standard version
NS_HL Standard low noise version
NS_HA High efficiency version
NS_HE High efficiency low noise version

- **Operational limits (1)**
- max. external air temperature 48°C in cooling mode
- Maximum leaving water temperature 55°C in fheating mode

- 1/2 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 25 to 100%.
- Electronic expansion valve as a standard
- Economiser circuit with plate heat exchanger for improved performance, particularly at high compression ratios, as experienced in heating mode at low ambients
- Generously sized refrigerant circuit for minimum pressure drop
- Shell and tube evaporator optimised for refrigerant R134a.
- Pressure switch as standard supply
- Option integrated hydronic mudule, it consist of 1 or 2 pumps and 2 exspansion tanks (25l.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint
- Options for partial or total heat recovery
- The low nois version "L/E" is equipped:
- Compressor acoustical enclosure
- Fan speed control (DCPX)
- Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Low ambient device for cooling operation below 20°C down to -10°C.
- **AVX:** Spring anti-vibration

Accessories factory fitted only

- **KRS:** Evaporator trace heating.
- **KRSDES/KRSREC:** Evaporator and heat recovery exchangers trace heating.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current**.**
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage**.**
- **AK: ACOUSTIC KIT**
  (only for Versions L and E)
  This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS		vers.	1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1		All	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1)	All	69	69	69	69	68	68	68	73	73	73	73	73	73	73	73	73	73
Spring antivibration for unit without Hydronik kit "00"																			
AVX		HA/HE	536	536	536	540	537	538	541	543	543	545	549	551	551	554	556	557	559
Spring antivibration for unit with Hydronik kit																			
AVX	PA	HA/HE	536	536	536	540	537	538	541	543	543	545	550	551	551	553	553	557	559
AVX	PC	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PE	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PG	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PJ	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
Accessories factory fitted only																			
KRS			KRS11	KRS11	KRS11	KRS11	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS14	KRS14	KRS14	KRS14
KRS_DES	(2)		KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES
RIFNSH			1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
GP300M			•	•	•														
GP400M						•													
GP300B							•	•											
GP400B									•										
GP500B										•	•	•	•	•	•				
GP300M+300M																•	•		
GP300M+400M																		•	
GP400M+400M																			•
AK	(3)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) IDCPX Accessory supplied as standard on Versions HE, and D
(2) Accessory comes standard wit the electrical heater for evaporator and desuperheater
(3) Accessory is only available for the low noise verion "L/E"
(x2) the number in brackets indicates the quantity to order

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**

1,2 **NS**

3,4,5,6 **Size**
1251-1401-1601-1801
1402-1602-1802-2002-2202-2352-2502-2652-2802
3002-3202-3402-3602

7 **Expansion valve:**
X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures

8 **Model**
H Heat pumps

9 **Heat recovery**
° Without recovery
D With Desuperheater

10 **Version**
A High efficiency
E High efficiency in low noise operation

11 **Coil**
° In aluminium
R In copper
S In tinned copper
V In painted aluminium-copper (epoxy paint)

12 **Fans**
° Standard
J Inverter

13 **Power supply**
° 400V/3/50Hz with fuses
2 230V/3/50Hz with fuses **(4)**
4 230V/3/50Hz with circuit breakers **(4)**
5 500V/3/50Hz with fuses **(5)**
8 400V/3/50Hz with circuit breakers
9 500V/3/50Hz with circuit breakers **(5)**

14-15 **Hydronic kit**
00 Without hydronic kit
PA Hydronic pump (Pump A)
PC Hydronic pump (Pump C)
PE Hydronic pump (Pump E)
PG Hydronic pump (Pump G)
PJ Hydronic pump (Pump J)

The desuperheater ca be used exclusively in the col operation
(4) 230V/3/50Hz is not available for size 1251÷1801/2352÷3602
(5) 500V/3/50Hz is not available for size 1801-3402-3602

Technical Data

NS - HA				1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/Ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1)	kW	262,0	281,0	309,0	365,0	257,0	315,0	365,0	384,0	413,0	454,0	498,0	523,0	546,0	590,0	619,0	674,0	730,0
	Total input power	(1)	kW	87,0	95,0	108,0	128,0	95,0	108,0	125,0	132,0	139,0	158,0	173,0	187,0	196,0	203,0	215,0	236,0	256,0
	EER	(1)		3,01	2,96	2,86	2,85	2,71	2,92	2,92	2,91	2,97	2,87	2,88	2,80	2,79	2,91	2,88	2,86	2,85
	ESEER	(1)		3,51	3,44	3,31	3,30	3,23	3,48	3,49	3,48	3,56	3,41	3,44	3,36	3,33	3,37	3,31	3,31	3,30
	Water flow rate	(1)	l/h	45236	48504	53320	62952	44376	54352	62952	66220	71380	78260	86000	90300	94256	101824	106640	116272	125904
	Pressure drop	(1)	kPa	38	41	27	43	36	50	43	47	53	37	38	40	43	34	27	35	43
40°C / 45°C	Heating capacity	(2)	kW	282,0	298,0	333,0	394,0	282,0	344,0	397,0	413,0	452,0	504,0	543,0	565,0	587,0	631,0	666,0	727,0	789,0
	Total input power	(2)	kW	88,1	94,2	103,9	126,6	93,1	106,6	123,6	133,8	141,0	158,0	171,0	177,0	185,0	198,0	208,0	230,0	253,0
	COP	(2)		3,20	3,16	3,20	3,11	3,03	3,23	3,21	3,09	3,21	3,19	3,18	3,19	3,17	3,19	3,20	3,16	3,12
	Water flow rate	(2)	l/h	48332	51084	57104	67596	48332	58824	67940	70864	77400	86344	93052	96836	100620	108188	114208	124700	135192
	Pressure drop	(2)	kPa	43	45	30	49	43	59	50	54	62	45	43	45	49	38	30	40	50
	Performance under average climatic conditions (Average)																			
	Pdesignh	(3)		185	195	218	259	185	225	260	271	297	330	356	370	385	/	/	/	/
	SCOP	(3)		3,33	3,28	3,33	3,23	3,23	3,33	3,33	3,20	3,30	3,30	3,30	3,33	3,30	/	/	/	/
	ηs	(3)		130	128	130	126	126	130	130	125	129	129	129	130	129	/	/	/	/
	Cooling capacity with low leaving water temp																			
	ηsc		%	152,1	149,4	147,4	145,2	135,2	144,2	146,0	145,0	149,0	145,7	146,6	143,5	142,5	149,5	147,5	146,1	145,8
	SEER			3,88	3,81	3,76	3,71	3,46	3,68	3,73	3,70	3,80	3,72	3,74	3,66	3,64	3,81	3,76	3,73	3,72

NS - HE				1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/Ph/Hz			400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1)	kW	250,0	266,0	291,0	343,0	242,0	301,0	349,0	366,0	393,0	435,0	486,0	505,0	516,0	559,0	585,0	635,0	686,0
	Total input power	(1)	kW	92,0	102,0	116,0	136,0	101,0	116,0	132,0	140,0	146,0	169,0	192,0	202,0	211,0	217,0	231,0	252,0	272,0
	EER	(1)		2,72	2,61	2,51	2,52	2,40	2,59	2,64	2,61	2,69	2,57	2,53	2,50	2,45	2,58	2,53	2,52	2,52
	ESEER	(1)		3,36	3,21	3,09	3,10	3,05	3,29	3,33	3,30	3,40	3,25	3,18	3,15	3,11	3,15	3,09	3,08	3,09
	Water flow rate	(1)	l/h	43172	45924	50224	59168	41796	51944	60200	63124	67940	74992	83936	87204	89096	96320	100792	109564	118336
	Pressure drop	(1)	kPa	32	37	24	38	33	46	39	43	48	34	35	37	39	30	24	31	38
40°C / 45°C	Heating capacity	(2)	kW	282,0	298,0	333,0	394,0	282,0	344,0	397,0	413,0	452,0	504,0	543,0	565,0	587,0	631,0	666,0	727,0	789,0
	Total input power	(2)	kW	88,1	94,2	103,9	126,6	93,1	106,6	123,6	133,8	141,0	158,0	171,0	177,0	185,0	198,0	208,0	230,0	253,0
	COP	(2)		3,20	3,16	3,20	3,11	3,03	3,23	3,21	3,09	3,21	3,19	3,18	3,19	3,17	3,19	3,20	3,16	3,12
	Water flow rate	(2)	l/h	48332	51084	57104	67596	48332	58824	67940	70864	77400	86344	93052	96836	100620	108188	114208	124700	135192
	Pressure drop	(2)	kPa	43	45	30	49	43	59	50	54	62	45	43	45	49	38	30	40	50
	Performance under average climatic conditions (Average)																			
	Pdesignh	(3)		185	195	218	259	185	225	260	271	297	330	356	370	385	/	/	/	/
	SCOP	(3)		3,33	3,28	3,33	3,23	3,23	3,33	3,33	3,20	3,30	3,30	3,30	3,33	3,30	/	/	/	/
	ηs	(3)		130	128	130	126	126	130	130	125	129	129	129	130	129	/	/	/	/
	Cooling capacity with low leaving water temp																			
	ηsc		%	133,4	128,1	124,4	124,7	116,8	126,2	129,7	128,2	131,8	128,1	126,3	124,3	121,7	129,1	126,9	126,1	126,2
	SEER			3,41	3,28	3,19	3,19	3,00	3,23	3,32	3,28	3,37	3,28	3,23	3,18	3,12	3,30	3,25	3,23	3,23

				1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																				
Total input current (cooling)	HA	(4)	A	149	164	185	215	168	186	216	227	233	268	295	318	335	349	370	400	430
Total input current (heating)	HA	(4)	A	150	163	180	212	165	182	213	229	236	267	292	303	318	342	359	391	423
Total input current (cooling)	HE	(4)	A	161	178	202	234	181	202	233	246	254	293	333	349	365	380	403	436	468
Total input current (heating)	HE	(4)	A	150	163	180	212	165	182	213	229	236	267	292	303	318	342	359	391	423
Maximum current (FLA)		(4)	A	209	242	258	316	276	276	325	352	370	390	410	443	476	500	516	574	631
Starting current (LRA)		(4)	A	327	387	431	472	251	251	305	313	350	365	436	461	521	534	578	612	653
Screw Compressor																				
Compressor / circuit			n°	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant			Type	R134a																
Heat exchanger system side (Shell&Tube)																				
Exchanger			n°	1	1	1	1	2	2	2	2	1	1	1	1	1	2	2	2	2
hydraulic connections (In/Out)			Ø	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
Axial Fan																				
Fan	HA		n°	6	6	6	8	6	6	8	10	10	10	10	10	10	12	12	14	16
Air flow rate (cooling)	HA		m³/h	117600	117600	112200	156000	117600	112200	153200	196000	196000	196000	196000	191500	187000	229800	224400	268200	312000
Fan	HE		n°	6	6	6	8	6	6	8	10	10	10	10	10	10	12	12	14	16
Air flow rate (cooling)	HE		m³/h	82320	117600	78540	109200	82320	78540	107240	137200	137200	137200	137200	134050	130900	196140	157080	187740	218400
Sound data (cooling mode)																				
Sound power level	HA		dB(A)	94	94	95	96	94	95	96	97	97	97	97	97	97	97	98	99	99
Sound pressure level	HA		dB(A)	62	62	63	64	62	63	64	64	64	64	65	65	65	64	65	66	66
Sound power level	HE		dB(A)	89	89	90	91	89	90	91	92	92	92	92	92	92	92	93	94	94
Sound pressure level	HE		dB(A)	57	57	58	59	57	58	59	59	59	59	60	60	60	59	60	61	61

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 400kW

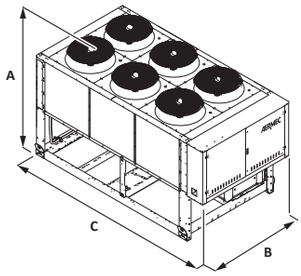
(4) Unit standar configuration without hydronic kit

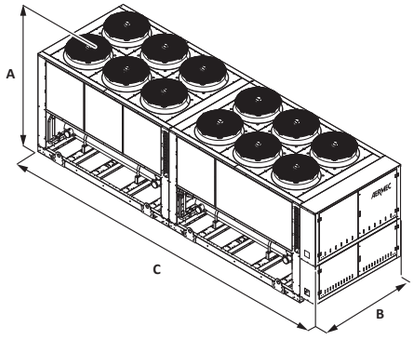
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)





NS - H			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	C	mm	3780	3780	3780	4770	3780	3780	4770	5750	5750	5750	5750	5750	5750	7160	7160	8150	9140
Weight	HA/HE	kg	3245	3280	3435	4115	3570	3835	4005	4385	4570	4940	5265	5470	5610	6540	6745	7425	8105

Cod.: SNSHUY.05 /1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

NSG
1402/9603
cooling only

Air/Water chillers for outdoor installation
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity 443 - 1578kW

HFO Refrigerant R1234ze

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **NIGHT MODE**

Characteristics

Outdoor chillers for the production of chilled water with high-efficiency screw compressors, with cooling capacity adjustment via continuous modulation. Axial fans, microchannel external coils, plant side shell and tube heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

HFO R1234ze is a mixture featuring
ODP=0 e GWP (**Global Warming Potential) = 7**,
R134a GWP = 1430, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

Versions

NSG_°	Standard
NSG_L	Standard low noise
NSG_A	High efficiency
NSG_E	High efficiency low noise
NSG_U	Very high efficiency
NSG_N	Very high efficiency low noise

Range of operation: Work up to 45°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- The full range uses electronic thermostatic valve . The possibility of using this valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the **integral proportional logic,** based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

" Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate."

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **RIFNSM:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **GP:** Anti-intrusion grids.

Compatibility of accessories

Mod. NSG	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only												
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(x2) Indicates the amount to order

(1) Contattare la sede per temperature inferiori

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field		Description
1,2,3		**NSG**
4,5,6,7		**Sizes**
		1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202-3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 6503-6703-6903-7203-8403-9603
8		**Operational limits**
	X	Electronic thermostatic valve (temperature of water produced up to +4 °C)
9		**Model**
	°	Cooling Only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Version**
	°	Standard
	L	Low noise Standard
	A	High efficiency
	E	Low noise high efficency
	U	Very high efficiency
	N	Low noise very high efficiency
12		**Coils**
	°	Aluminium microchannel
	O	Painted aluminium microchannel
	R	Copper - Copper
	S	Copper - Thinned
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V/3/50Hz with fuses
	8	400V/3/50Hz with magnet circuit breakers
	2	230V/3/50Hz with fuses **(2)**
	4	230V/3/50Hz with magnet circuit breakers **(2)**
	5	500V/3/50Hz with fuses **(3)**
	9	500V/3/50Hz with magnet circuit breakers **(3)**
15-16		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pumping unit (pump A)
	PB	Pumping unit (pump B)
	PC	Pumping unit (pump C)
	PD	Pumping unit (pump D)
	PE	Pumping unit (pump E)
	PF	Pumping unit (pump F)
	PG	Pumping unit (pump G)
	PH	Pumping unit (pump H)
	PI	Pumping unit (pump I)
	PJ	Pumping unit (pump J)
	DA	Pumping unit (pump A and stand-by pump)
	DB	Pumping unit (pump B and stand-by pump)
	DC	Pumping unit (pump C and stand-by pump)
	DD	Pumping unit (pump D and stand-by pump)
	DE	Pumping unit (pump E and stand-by pump)
	DF	Pumping unit (pump F and stand-by pump)
	DG	Pumping unit (pump G and stand-by pump)
	DH	Pumping unit (pump H and stand-by pump)
	DI	Pumping unit (pump I and stand-by pump)
	DJ	Pumping unit (pump J and stand-by pump)
Operation of pumps in parallel		
	TF	Double static pressure pump (pump F)
	TG	Double static pressure pump (pump G)
	TH	Double static pressure pump (pump H)
	TI	Double static pressure pump (pump I)
	TJ	Double static pressure pump (pump J)

(2) 230V/3/50Hz available only for sizes from 1402÷2202
(3) 500V/3/50Hz available only for sizes from 1402÷3202

Technical Data

NSG - °			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
V/ph/Hz			400V/3/50Hz													
12°C / 7°C Cooling capacity	(1)	kW	228	261	298	334	358	389	402	443	462	506	531	566	623	675
12°C / 7°C Total input power	(1)	kW	74	86	100	108	120	130	138	152	163	167	176	194	215	228
12°C / 7°C EER	(1)		3,07	3,04	2,96	3,08	2,99	3	2,91	2,92	2,84	3,03	3,02	2,92	2,9	2,96
12°C / 7°C ESEER	(1)		3,94	3,99	3,93	4,05	4,04	3,99	3,98	3,93	3,92	3,98	3,99	3,98	3,93	4
12°C / 7°C Water flow rate	(1)	l/h	39360	45000	51280	57520	61730	67100	69330	76370	79630	87140	91490	97510	107320	116360
12°C / 7°C Total pressure drops	(1)	kPa	14	18	16	21	24	20	22	18	19	17	19	21	24	29
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			3,94	4,00	3,95	4,04	4,02	4,04	4,10	4,10	4,11	4,11	4,12	4,11	4,12	4,13
ηsc		%	154,4	156,9	155,0	158,6	157,7	162,1	161,1	161,1	161,2	161,5	161,9	161,5	161,6	162,2

NSG - L			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C Cooling capacity	(1)	kW	228	261	298	335	373	386	415	446	476	497	546	601	645	706
12°C / 7°C Total input power	(1)	kW	73	84	98	113	120	128	138	144	156	165	179	193	213	231
12°C / 7°C EER	(1)		3,13	3,11	3,04	2,97	3,11	3,01	3,00	3,09	3,06	3,01	3,05	3,11	3,03	3,05
12°C / 7°C ESEER	(1)		4,03	4,12	4,03	4,03	4,09	4,07	4,08	4,08	4,10	4,05	4,05	4,11	4,08	4,08
12°C / 7°C Water flow rate	(1)	l/h	39210	45060	51430	57680	64310	66580	71470	76820	82060	85710	94100	103610	111050	121680
12°C / 7°C Total pressure drops	(1)	kPa	15	18	17	15	19	20	16	19	16	17	19	15	18	22
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			4,01	4,11	4,04	4,07	4,12	4,11	4,13	4,11	4,12	4,14	4,15	4,20	4,16	4,17
ηsc		%	157,5	161,3	158,4	159,6	161,8	162,8	162,2	161,4	161,9	162,4	163,1	165,1	163,3	163,9

NSG - A			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C Cooling capacity	(1)	kW	233	267	307	346	383	397	429	458	491	511	560	619	668	730
12°C / 7°C Total input power	(1)	kW	74	84	97	110	118	126	135	142	153	161	172	188	206	225
12°C / 7°C EER	(1)		3,16	3,19	3,17	3,15	3,23	3,15	3,18	3,22	3,22	3,18	3,26	3,30	3,24	3,25
12°C / 7°C ESEER	(1)		4,11	4,16	4,08	4,09	4,14	4,12	4,13	4,13	4,16	4,11	4,11	4,16	4,14	4,13
12°C / 7°C Water flow rate	(1)	l/h	40120	46030	52840	59650	65990	68450	73840	78940	84630	88070	96570	106680	115150	125820
12°C / 7°C Total pressure drops	(1)	kPa	15	19	18	16	20	22	17	20	16	18	20	16	19	24
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			4,10	4,17	4,09	4,14	4,18	4,17	4,17	4,17	4,20	4,17	4,22	4,27	4,24	4,24
ηsc		%	161,0	163,6	160,7	162,7	164,3	165,7	163,7	163,9	164,8	163,8	165,8	167,9	166,6	166,6

NSG - E			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C Cooling capacity	(1)	kW	243	281	317	359	387	413	428	471	494	514	549	608	654	713
12°C / 7°C Total input power	(1)	kW	74	86	97	111	122	127	133	144	153	160	172	189	205	222
12°C / 7°C EER	(1)		3,3	3,25	3,28	3,23	3,17	3,26	3,21	3,28	3,22	3,21	3,19	3,22	3,19	3,21
12°C / 7°C ESEER	(1)		4,2	4,25	4,27	4,21	4,17	4,25	4,21	4,25	4,21	4,21	4,19	4,21	4,2	4,21
12°C / 7°C Water flow rate	(1)	l/h	41920	48360	54640	61790	66710	71120	73760	81220	85060	88510	94660	104650	112670	122950
12°C / 7°C Total pressure drops	(1)	kPa	12	11	14	9	11	12	13	15	16	18	19	16	18	23
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			4,22	4,29	4,34	4,23	4,18	4,26	4,23	4,30	4,27	4,29	4,29	4,31	4,30	4,31
ηsc		%	165,9	168,6	170,4	166,3	164,0	168,0	166,2	169,1	167,6	168,5	168,4	169,4	168,8	169,3

NSG - U			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C Cooling capacity	(1)	kW	249	288	325	369	399	424	440	483	507	525	564	622	674	734
12°C / 7°C Total input power	(1)	kW	74	86	97	110	120	126	132	144	152	158	168	186	201	219
12°C / 7°C EER	(1)		3,36	3,36	3,35	3,35	3,33	3,36	3,33	3,36	3,33	3,34	3,36	3,35	3,35	3,36
12°C / 7°C ESEER	(1)		4,25	4,3	4,32	4,26	4,22	4,3	4,26	4,3	4,26	4,26	4,24	4,26	4,25	4,26
12°C / 7°C Water flow rate	(1)	l/h	42910	49680	55930	63520	68770	72950	75740	83210	87280	90540	97100	107230	116140	126520
12°C / 7°C Total pressure drops	(1)	kPa	13	11	14	10	11	13	14	16	17	18	20	17	20	24
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			4,28	4,35	4,39	4,29	4,24	4,32	4,29	4,36	4,33	4,35	4,35	4,37	4,36	4,37
ηsc		%	168,1	171,0	172,7	168,6	166,4	170,4	168,5	171,3	170,0	170,9	171,0	171,9	171,4	171,8

NSG - N			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
12°C / 7°C Cooling capacity	(1)	kW	245	283	318	364	394	417	433	475	498	517	552	612	669	726
12°C / 7°C Total input power	(1)	kW	73	84	95	108	119	125	131	141	149	157	166	183	200	216
12°C / 7°C EER	(1)		3,33	3,36	3,34	3,38	3,32	3,35	3,31	3,36	3,33	3,3	3,33	3,35	3,34	3,36
12°C / 7°C ESEER	(1)		4,27	4,29	4,38	4,25	4,17	4,23	4,2	4,23	4,17	4,17	4,16	4,2	4,19	4,19
12°C / 7°C Water flow rate	(1)	l/h	42200	48820	54780	62730	67870	71820	74530	81800	85740	89040	95110	105500	115230	125190
12°C / 7°C Total pressure drops	(1)	kPa	13	11	15	9	11	13	13	15	17	18	20	16	20	24
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER			4,29	4,34	4,45	4,27	4,18	4,24	4,22	4,28	4,23	4,26	4,27	4,31	4,29	4,30
ηsc		%	168,7	170,7	174,8	167,8	164,2	168,5	165,7	168,1	166,2	167,2	167,7	169,3	168,5	168,8

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C

Technical Data

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electrical data																	
Total input current (cooling)		(2)	A	138	156	174	192	214	233	248	271	289	297	309	332	359	390
Maximum current (FLA)	°		A	223,7	241,3	264,3	300,3	327,4	346,4	365,4	386,4	407,4	431,3	446,3	470,3	494,3	543,1
Starting current (LRA)			A	252,0	287,1	329,4	376,3	395,0	442,0	459,0	486,0	493,7	597,6	636,2	665,2	661,2	791,0
Total input current (cooling)		(2)	A	131	148	165	192	208	224	242	252	270	284	303	318	342	375
Maximum current (FLA)	L		A	232,6	250,2	273,2	300,3	336,3	355,3	374,3	404,1	425,1	440,1	455,1	488,0	512,0	560,9
Starting current (LRA)			A	260,9	296,0	338,3	376,3	403,9	450,9	467,9	503,7	511,4	606,4	645,0	682,9	678,9	808,8
Total input current (cooling)		(2)	A	139	155	170	195	214	229	246	260	276	287	303	322	344	380
Maximum current (FLA)	A		A	232,6	250,2	273,2	300,3	336,3	355,3	374,3	404,1	425,1	440,1	455,1	488,0	512,0	560,9
Starting current (LRA)			A	260,9	296,0	338,3	376,3	403,9	450,9	467,9	503,7	511,4	606,4	645,0	682,9	678,9	808,8
Total input current (cooling)		(2)	A	133	152	163	189	211	222	237	251	267	279	293	310	334	368
Maximum current (FLA)	E		A	232,6	250,2	282,1	309,2	336,3	364,1	383,1	413,0	434,0	449,0	464,0	496,9	520,9	569,8
Starting current (LRA)			A	260,9	296,0	347,2	385,2	403,9	459,7	476,7	512,6	520,3	615,3	653,9	691,8	687,8	817,7
Total input current (cooling)		(2)	A	141	158	172	196	217	231	246	263	277	287	298	319	342	377
Maximum current (FLA)	U		A	232,6	250,2	282,1	309,2	336,3	364,1	383,1	413,0	434,0	449,0	464,0	496,9	520,9	569,8
Starting current (LRA)			A	260,9	296,0	347,2	385,2	403,9	459,7	476,7	512,6	520,3	615,3	653,9	691,8	687,8	817,7
Total input current (cooling)		(2)	A	132	149	162	185	207	219	234	249	264	274	287	306	324	359
Maximum current (FLA)	N		A	241,5	259,1	290,9	318,0	345,1	373,0	392,0	421,9	442,9	457,9	472,9	505,8	538,7	593,4
Starting current (LRA)			A	269,8	304,9	356,0	394,0	412,7	468,6	485,6	521,5	529,2	624,2	662,8	700,7	705,6	841,3
Two screw Compressors																	
Compressor / Circuit			n°	2/2													
Refrigerant			Type	R1234ze													
Shell & tube system side exchanger																	
Exchanger			n°	1													
hydraulic connections (In/Out)			Ø	Please refer to technical documentation													
Axial fans																	
Fan	°		n°	6	6	6	8	8	8	8	8	8	10	10	10	10	12
Air flow rate			m³/h	96000	96000	96000	128000	128000	128000	128000	144000	144000	180000	180000	180000	180000	216000
Fan	L		n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
Air flow rate			m³/h	92000	92000	92000	92000	115000	115000	115000	138000	138000	138000	138000	161000	161000	184000
Fan	A		n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
Air flow rate			m³/h	128000	128000	128000	128000	160000	160000	160000	192000	192000	192000	192000	224000	224000	256000
Fan	E		n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
Air flow rate			m³/h	92000	92000	115000	115000	115000	138000	138000	161000	161000	161000	161000	184000	184000	207000
Fan	U		n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
Air flow rate			m³/h	128000	128000	160000	160000	160000	192000	192000	224000	224000	224000	224000	256000	256000	288000
Fan	N		n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate			m³/h	115000	115000	138000	138000	138000	161000	161000	184000	184000	184000	184000	207000	230000	253000
Sound data																	
Sound power level	°		dB(A)	97	97	97	98	98	98	98	98	98	99	100	100	100	101
	L		dB(A)	89	89	89	89	90	91	91	91	91	91	91	91	91	92
	A		dB(A)	97	97	98	98	98	98	98	99	99	99	99	99	99	100
	E		dB(A)	89	89	90	90	90	91	91	92	92	92	92	93	93	93
	U		dB(A)	97	97	98	98	98	99	99	99	99	99	99	100	100	100
	N		dB(A)	90	90	91	91	91	91	91	92	92	92	92	93	93	93
Sound pressure level	°		dB(A)	65	65	65	65	65	66	66	66	66	67	67	67	67	68
	L		dB(A)	56	57	57	57	58	58	58	58	58	58	58	59	59	60
	A		dB(A)	65	65	65	65	66	66	66	66	66	66	66	67	67	67
	E		dB(A)	57	57	58	58	58	58	59	59	59	59	60	60	60	60
	U		dB(A)	65	65	65	66	66	66	66	66	66	66	67	67	67	67
	N		dB(A)	57	58	58	58	58	59	59	59	59	59	60	60	60	60

(2) (2) Unit standard configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

(2) Unità in configurazione ed esecuzione standard, senza kit idronico integrato

Potenza sonora Aermec determina il valore della potenza sonora sulla base di misure effettuate in accordo con la normativa UNI EN ISO 9614-2, nel rispetto della certificazione Eurovent.

Technical Data

NSG - °				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
	V/ph/Hz			400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	738	791	834	873	895	940	987	1058	1093	1214	1267	1331	1408
	Total input power	(1)	kW	252	263	282	289	302	321	330	355	375	408	419	462	512
	EER	(1)		2,93	3,01	2,96	3,02	2,96	2,93	2,99	2,98	2,91	2,98	3,02	2,88	2,75
	ESEER	(1)		3,93	4,00	3,98	3,98	3,98	3,93	3,99	3,98	3,93	3,99	3,99	3,93	3,92
	Water flow rate	(1)	l/h	127290	136400	143740	150570	154380	162220	170230	182470	188460	209100	218340	229400	242630
	Total pressure drops	(1)	kPa	33	38	28	31	33	38	42	29	31	20	22	25	28
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,12	4,13	4,10	4,10	4,11	4,12	4,11	4,17	4,13	4,20	4,21	4,15	4,15
	ηsc		%	161,8	162,1	161,0	161,1	161,2	161,7	161,5	163,8	162,0	165,0	165,2	162,8	162,9

NSG - L				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Cooling capacity	(1)	kW	742	805	840	892	932	981	1021	1082	1119	1221	1267	1381	1514
	Total input power	(1)	kW	252	267	284	298	306	315	334	358	379	402	421	465	505
	EER	(1)		2,94	3,02	2,96	3,00	3,05	3,11	3,05	3,03	2,95	3,04	3,01	2,97	3,00
	ESEER	(1)		4,02	4,05	4,04	4,03	4,05	4,06	4,02	4,07	4,02	4,08	4,05	4,02	4,05
	Water flow rate	(1)	l/h	127960	138770	144850	153740	160700	169130	176070	186480	192760	210460	218450	238070	261080
	Total pressure drops	(1)	kPa	24	31	33	24	26	31	33	22	24	31	33	26	32
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,12	4,15	4,13	4,13	4,16	4,17	4,13	4,26	4,21	4,28	4,25	4,22	4,25
	ηsc		%	161,6	162,8	162,3	162,1	163,2	163,6	162,3	167,3	165,5	168,2	167,0	165,9	167,1

NSG - A				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Cooling capacity	(1)	kW	769	832	870	922	960	1009	1052	1120	1159	1261	1311	1431	1578
	Total input power	(1)	kW	244	259	274	291	302	313	330	347	366	390	408	451	496
	EER	(1)		3,16	3,22	3,18	3,16	3,18	3,23	3,18	3,23	3,17	3,23	3,21	3,17	3,18
	ESEER	(1)		4,08	4,10	4,10	4,09	4,11	4,11	4,08	4,12	4,08	4,14	4,11	4,08	4,10
	Water flow rate	(1)	l/h	132590	143490	150130	158890	165540	173990	181360	193010	199780	217420	226030	246560	272000
	Total pressure drops	(1)	kPa	26	33	36	26	28	33	35	24	26	33	36	27	35
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,20	4,22	4,22	4,22	4,24	4,24	4,21	4,32	4,27	4,33	4,31	4,30	4,32
	ηsc		%	164,8	165,7	165,6	165,8	166,5	166,5	165,4	169,6	167,9	170,3	169,3	168,8	169,8

NSG - E				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Cooling capacity	(1)	kW	763	812	876	899	944	999	1028	1100	1150	1241	1299	-	-
	Total input power	(1)	kW	236	256	273	284	293	310	319	343	358	392	408	-	-
	EER	(1)		3,23	3,18	3,2	3,17	3,22	3,22	3,23	3,21	3,21	3,16	3,19	-	-
	ESEER	(1)		4,21	4,17	4,22	4,13	4,14	4,14	4,22	4,23	4,25	4,12	4,17	-	-
	Water flow rate	(1)	l/h	131540	139970	150920	155010	162580	172130	177050	189610	198200	213880	223860	-	-
	Total pressure drops	(1)	kPa	26	32	24	25	16	16	19	23	26	32	24	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,32	4,28	4,33	4,25	4,27	4,28	4,36	4,43	4,45	4,32	4,36	-	-
	ηsc		%	169,7	168,0	170,3	166,9	167,8	168,2	171,4	174,0	174,9	169,8	171,3	-	-

NSG - U				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Cooling capacity	(1)	kW	783	836	901	926	970	1026	1054	1132	1181	1278	1337	-	-
	Total input power	(1)	kW	232	250	268	278	288	306	316	337	352	383	399	-	-
	EER	(1)		3,37	3,34	3,36	3,33	3,36	3,35	3,34	3,35	3,35	3,34	3,35	-	-
	ESEER	(1)		4,26	4,22	4,27	4,18	4,18	4,19	4,27	4,28	4,3	4,17	4,22	-	-
	Water flow rate	(1)	l/h	135020	144090	155200	159640	167100	176680	181500	195000	203490	220310	230420	-	-
	Total pressure drops	(1)	kPa	28	34	25	27	17	17	20	24	28	34	25	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,38	4,34	4,40	4,31	4,33	4,34	4,42	4,48	4,50	4,36	4,40	-	-
	ηsc		%	172,1	170,4	172,8	169,2	170,0	170,4	173,8	176,0	177,1	171,4	173,1	-	-

NSG - N				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
12°C / 7°C	Cooling capacity	(1)	kW	766	833	879	924	960	1002	1035	1119	-	-	-	-	-
	Total input power	(1)	kW	230	248	261	275	287	296	312	333	-	-	-	-	-
	EER	(1)		3,33	3,36	3,36	3,36	3,35	3,38	3,32	3,36	-	-	-	-	-
	ESEER	(1)		4,15	4,17	4,18	4,21	4,14	4,16	4,13	4,18	-	-	-	-	-
	Water flow rate	(1)	l/h	131990	143570	151590	159270	165390	172630	178330	192800	-	-	-	-	-
	Total pressure drops	(1)	kPa	27	23	29	29	17	17	20	24	-	-	-	-	-
	Cooling capacity with low leaving water temp (UE n° 2016/2281)															
	SEER			4,26	4,29	4,30	4,33	4,27	4,29	4,27	4,35	-	-	-	-	-
	ηsc		%	167,5	168,5	169,1	170,2	167,8	168,7	167,6	171,1	-	-	-	-	-

Date (14511:2013)
(1) Water evaporator 12°C/7°C, External air 35°C

Technical Data

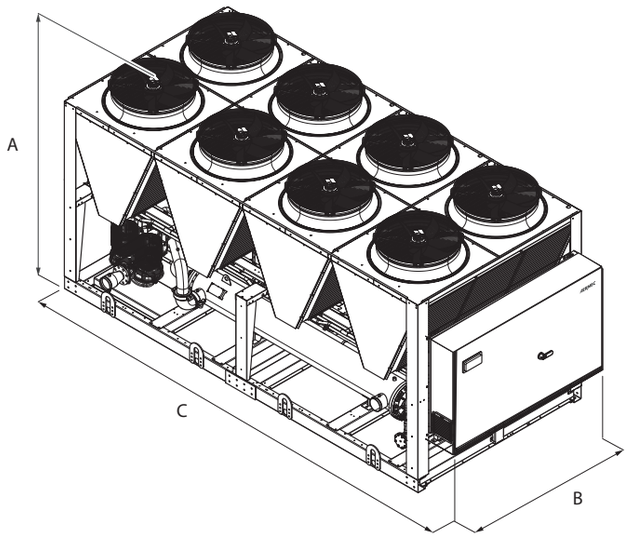
				4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electrical data																
Total input current (cooling)		(2)	A	434	454	482	500	524	558	581	609	649	701	728	805	900
Maximum current (FLA)	°		A	583,1	625,0	658,0	697,9	728,9	760,9	801,8	831,8	871,8	946,7	994,4	1087,4	1183,4
Starting current (LRA)			A	821,3	894,2	914,2	1078,1	1097,9	1209,9	1249,8	993,9	1024,2	1117,1	1151,8	1346,4	1520,4
Total input current (cooling)		(2)	A	416	437	465	490	507	533	563	583	623	670	699	763	848
Maximum current (FLA)	L		A	600,9	642,8	675,8	706,8	746,7	793,4	825,4	864,3	904,3	988,1	1021,1	1122,9	1236,7
Starting current (LRA)			A	839,1	912,0	932,0	1087,0	1115,7	1242,4	1273,4	1026,4	1056,7	1158,5	1178,5	1381,9	1573,7
Total input current (cooling)		(2)	A	417	440	466	502	524	554	583	588	625	676	701	769	866
Maximum current (FLA)	A		A	600,9	642,8	675,8	706,8	746,7	793,4	825,4	864,3	904,3	988,1	1021,1	1122,9	1236,7
Starting current (LRA)			A	839,1	912,0	932,0	1087,0	1115,7	1242,4	1273,4	1026,4	1056,7	1158,5	1178,5	1381,9	1573,7
Total input current (cooling)		(2)	A	399	428	450	475	495	519	544	572	599	656	673	-	-
Maximum current (FLA)	E		A	618,7	651,7	699,4	730,4	770,3	811,2	852,1	882,1	930,9	996,9	1038,8	-	-
Starting current (LRA)			A	856,9	920,9	955,6	1110,6	1139,3	1260,2	1300,1	1044,2	1083,3	1167,3	1196,2	-	-
Total input current (cooling)		(2)	A	411	437	461	486	509	536	564	586	617	668	689	-	-
Maximum current (FLA)	U		A	618,7	651,7	699,4	730,4	770,3	811,2	852,1	882,1	930,9	996,9	1038,8	-	-
Starting current (LRA)			A	856,9	920,9	955,6	1110,6	1139,3	1260,2	1300,1	1044,2	1083,3	1167,3	1196,2	-	-
Total input current (cooling)		(2)	A	395	413	435	458	480	509	537	557	-	-	-	-	-
Maximum current (FLA)	N		A	633,4	684,2	726,1	765,9	805,8	837,8	869,8	908,7	-	-	-	-	-
Starting current (LRA)			A	871,6	953,4	982,3	1146,1	1174,8	1286,8	1317,8	1070,8	-	-	-	-	-
Two screw Compressors																
Compressor / Circuit	°		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	L		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	A		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3
	E		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	-	-
	U		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	-	-
	N		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	-	-	-	-	-
Refrigerant			Type	R1234ze												
Shell & tube system side exchanger																
Exchanger	°		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
	L		n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	A		n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	E		n°	1	1	1	1	2	2	2	2	2	2	2	-	-
	U		n°	1	1	1	1	2	2	2	2	2	2	2	-	-
	N		n°	1	2	2	2	2	2	2	2	-	-	-	-	-
hydraulic connections (In/Out)			Ø	Please refer to technical documentation												
Axial fans																
Fan	°		n°	12	14	14	16	16	16	18	18	18	20	22	22	22
Air flow rate			m³/h	216000	252000	252000	288000	288000	288000	324000	324000	324000	360000	396000	396000	396000
Fan	L		n°	16	18	18	18	20	22	22	24	24	28	28	30	34
Air flow rate			m³/h	184000	207000	207000	234000	260000	286000	286000	276000	276000	322000	322000	345000	442000
Fan	A		n°	16	18	18	18	20	22	22	24	24	28	28	30	34
Air flow rate			m³/h	256000	288000	288000	324000	360000	396000	396000	384000	384000	448000	448000	480000	612000
Fan	E		n°	20	20	22	22	24	26	28	28	30	30	32	-	-
Air flow rate			m³/h	230000	230000	253000	253000	276000	299000	322000	322000	345000	345000	368000	-	-
Fan	U		n°	20	20	22	22	24	26	28	28	30	30	32	-	-
Air flow rate			m³/h	320000	320000	352000	352000	384000	416000	448000	448000	480000	480000	512000	-	-
Fan	N		n°	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate			m³/h	253000	299000	322000	345000	368000	368000	368000	391000	-	-	-	-	-
Sound data																
Sound power level	°		dB(A)	101	101	101	102	102	102	102	102	102	103	103	103	103
	L		dB(A)	93	93	93	93	94	94	94	94	94	94	94	94	95
	A		dB(A)	100	100	101	102	102	102	102	102	102	102	102	103	104
	E		dB(A)	94	94	94	94	94	94	94	94	94	94	95	-	-
	U		dB(A)	101	101	101	102	102	102	102	102	102	102	102	-	-
	N		dB(A)	93	94	94	95	95	95	95	95	-	-	-	-	-
Sound pressure level	°		dB(A)	68	68	69	69	69	69	69	69	69	70	70	70	70
	L		dB(A)	60	60	60	60	61	61	61	61	61	61	61	61	61
	A		dB(A)	67	67	68	68	69	69	69	69	69	69	69	70	71
	E		dB(A)	60	60	60	61	61	61	61	61	61	61	61	-	-
	U		dB(A)	68	68	68	68	69	69	69	69	69	69	69	-	-
	N		dB(A)	60	61	61	61	61	61	62	62	-	-	-	-	-

* Units with Inverter fans

(2) Unit standard configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Dimensions and weights



Mod. NSG		Vers	1402	1602	1802	2002	2202	2352	2502
A	(mm)	All	2450	2450	2450	2450	2450	2450	2450
B	(mm)	All	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	3970	3970	3970	5160	5160	5160	5160
		L	5160	5160	5160	5160	6350	6350	6350
		A	5160	5160	5160	5160	6350	6350	6350
		E	5160	5160	6350	6350	6350	7540	7540
		U	5160	5160	6350	6350	6350	7540	7540
		N	6350	6350	7540	7540	7540	8730	8730

Mod. NSG		Vers	2652	2802	3002	3202	3402	3602	3902
A	(mm)	All	2450	2450	2450	2450	2450	2450	2450
B	(mm)	All	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	5160	5160	6350	6350	6350	6350	7540
		L	7540	7540	7540	7540	8730	8730	9920
		A	7540	7540	7540	7540	8730	8730	9920
		E	8730	8730	8730	8730	9920	9920	11110
		U	8730	8730	8730	8730	9920	9920	11110
		N	9920	9920	9920	9920	11110	12300	13490

Mod. NSG		Vers	4202	4502	4802	5202	5602	6002	6402
A	(mm)	All	2450	2450	2450	2450	2450	2450	2450
B	(mm)	All	2200	2200	2200	2200	2200	2200	2200
C	(mm)	°	7540	8730	8730	9920	9920	9920	11110
		L	9920	11110	11110	11110	12300	13490	13490
		A	9920	11110	11110	11110	12300	13490	13490
		E	12300	12300	13490	13490	15080	16270	17460
		U	12300	12300	13490	13490	15080	16270	17460
		N	13490	16270	17460	18650	19840	19840	19840

Mod. NSG		Vers	6503	6703	6903	7203	8403	9603
A	(mm)	All	2450	2450	2450	2450	2450	2450
B	(mm)	All	2200	2200	2200	2200	2200	2200
C	(mm)	°	11110	11110	12300	13490	13490	13490
		L	15080	15080	17460	17460	18650	21030
		A	15080	15080	17460	17460	18650	21030
		E	17460	18650	18650	19840	-	-
		U	17460	18650	18650	19840	-	-
		N	21030	n.d.	n.d.	n.d.	-	-

For transport reasons, the sizes of the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Cod.: SNSG1402_9603_co_ce_UY.01 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

TBX

Air/Water chillers for outdoor installation
With two-stage centrifugal compressor shell and tube heat exchangers and axial fans
Cooling capacity 259÷861kW

HFC Refrigerant R134a

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participates in the EUROVENT: LCP programme, The products are listed on the site www.eurovent-certification.com



Characteristics

- Available in 13 sizes
- Cooling only version
- New generation two-stage oil-free centrifugal compressor with magnetic levitation bearings
- Refrigerant R134a
- Exceptional high efficiency at part load (up to 30% higher ESEER compared to standard chillers)
- Electronic expansion valve for precise control
- Flooded shell and tube evaporator optimised for refrigerant R134a
- Axial fans for extremely quiet operation
- Compressor features:

1. Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
2. Provided with inverter technology that permits capacity modulation down to 25%
3. Integrated controller that reduces starting current to 6 A only

- Standard **"°" and Low noise "L" Versions:**

1. Operating limit up to 42 °C external air temperature
2. Compressor acoustical enclosure for low noise operation
3. Fan speed control

- **High efficiency "A" and High efficiency low noise "E" Versions:**

1. Operating limit up to 42 °C external air temperature
2. Compressor acoustical enclosure for low noise operation
3. EC (Electronically Commutated) fan

- Modulating capacity control microprocessor system
- Evaporator trace heating.
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICHILLER_EVO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage**.**

Factory fitted.

- **PTW: Remote control of the chiller operating functions.**

TBX	VERS.	1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
AER485P1	Alls	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	Alls	•	•	•	•	•	•	•	•	•	•	•	•
GP300M	L|E	•											
GP400M	L|E		•										
GP500M	L|E			•	•	•							
GP 300M+300M	L|E						•						
GP 300M+400M	L|E							•	•	•			
GP 400M+400M	L|E										•		
GP 400M+500M	L|E											•	
GP 500M+500M	L|E												•
GP 300M	°|A	•											
GP 400M	°|A		•										
GP 500M	°|A			•	•	•							
GP 300M+300M	°|A						•						
GP 300M+400M	°|A							•	•				
GP 400M+400M	°|A									•			
GP 400M+500M	°|A										•		
GP 500M+500M	°|A											•	•
AVX	°	570	571	571	572	573	574	575	575	576	576	577	577
	L	570	571	571	572	573	574	575	575	575	576	576	577
	A	570	571	571	572	573	574	575	575	576	576	578	578
	E	570	571	571	572	573	574	575	575	575	576	576	577

Note:
The number in brackets **(x2)** indicates the quantity to order.
AER485P1 - GP Accessory only factory fitted.

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Code:
TBX
Size:
1401, 1801, 2001, 2302, 2502, 2652, 2802, 3202, 3502, 3702,
3802, 4102, 4303
Model:
° - Cooling only
Version:
° - Standard
L - Standard low noise
A - High efficiency
E - High efficiency low noise
Condenser coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium
Fan:
° - Standard
I - EC (Electronically Commutated)
standard on "A" and "E" Versions
Power supply:
° - 400V 3~ 50Hz with circuit breakers

Note:
– Electronic expansion valve standard

Technical Data

TBX - °				1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
	V/ph/Hz			400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1)	kW	287	368	407	469	509	545	587	669	736	781	816	845
	Total power input	(1)	kW	91,8	117,2	129,3	149	161,4	173	184,9	212,2	233,3	247,4	258,8	268,2
	EER	(1)		3,13	3,14	3,15	3,15	3,16	3,15	3,18	3,15	3,15	3,16	3,15	3,15
	ESEER	(1)		4,82	4,92	4,95	5,12	5,14	5,13	5,18	5,14	5,14	5,14	5,15	5,14
	Water flow rate	(1)	l/h	49536	63468	70176	80840	87720	93912	101136	115240	126764	134504	140524	145512
	Pressure drop	(1)	kPa	36	17	15	15	15	15	14	15	16	17	15	16
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc		%	187,6	193,6	195,0	194,7	195,6	195,7	197,8	196,9	197,2	197,3	197,8	197,5
	SEER			4,77	4,92	4,95	4,94	4,97	4,97	5,02	5,00	5,01	5,01	5,02	5,01

TBX - L				1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
	V/ph/Hz			400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1)	kW	259	343	392	436	464	518	543	595	635	688	742	785
	Total power input	(1)	kW	88,9	117,9	134,7	149,6	159,3	177,5	186,2	203,8	217,7	236,3	255,0	269,0
	EER	(1)		2,91	2,91	2,91	2,91	2,91	2,92	2,92	2,92	2,92	2,91	2,91	2,92
	ESEER	(1)		4,69	4,77	4,76	4,97	4,97	4,96	5,00	4,97	4,97	4,98	4,97	4,96
	Water flow rate	(1)	l/h	44646	59065	67577	75047	79911	89292	93568	102495	109444	118477	127858	135154
	Pressure drop	(1)	kPa	30	15	19	13	15	16	15	15	17	16	16	17
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc		%	184,9	189,0	189,1	196,9	196,9	198,0	198,2	199,0	198,9	198,9	199,2	199,7
	SEER			4,70	4,80	4,80	5,00	5,00	5,03	5,03	5,05	5,05	5,05	5,06	5,07

TBX - A				1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
	V/ph/Hz			400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1)	kW	287	371	416	460	502	538	594	668	740	793	831	861
	Total power input	(1)	kW	86,0	110,9	124,8	138,1	150,4	161,1	177,3	199,7	220,8	237,3	248,4	258,1
	EER	(1)		3,33	3,34	3,33	3,33	3,34	3,34	3,35	3,34	3,35	3,34	3,35	3,34
	ESEER	(1)		5,01	5,06	5,04	5,33	5,35	5,35	5,38	5,37	5,37	5,36	5,37	5,34
	Water flow rate	(1)	l/h	49536	63984	71724	79464	86688	92880	102512	115240	127624	136912	143448	148608
	Pressure drop	(1)	kPa	50	41	43	44	44	44	41	43	45	46	45	48
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc		%	192,2	196,0	195,3	200,3	201,3	201,8	203,6	203,4	203,8	203,5	204,2	203,1
	SEER			4,88	4,98	4,96	5,08	5,11	5,12	5,17	5,16	5,17	5,16	5,18	5,15

TBX - E				1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
	V/ph/Hz			400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1)	kW	265	355	406	441	474	533	556	614	650	707	768	813
	Total power input	(1)	kW	84,8	113,6	130,2	141,2	152,2	170,3	177	196,9	207,8	226,5	246,1	260,1
	EER	(1)		3,13	3,12	3,12	3,13	3,11	3,13	3,14	3,12	3,13	3,12	3,12	3,13
	ESEER	(1)		4,85	4,89	4,82	5,15	5,13	5,13	5,15	5,16	5,14	5,15	5,15	5,14
	Water flow rate	(1)	l/h	45790	61229	70176	76141	81755	91931	95976	105966	112282	122106	132633	140352
	Pressure drop	(1)	kPa	44	38	49	40	46	48	46	44	49	47	48	48
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc		%	183,1	185,5	183,9	192,8	191,1	192,4	193,9	193,5	193,4	193,8	193,9	194,5
	SEER			4,65	4,71	4,67	4,90	4,85	4,89	4,92	4,91	4,91	4,92	4,92	4,94

Date (14511:2013)

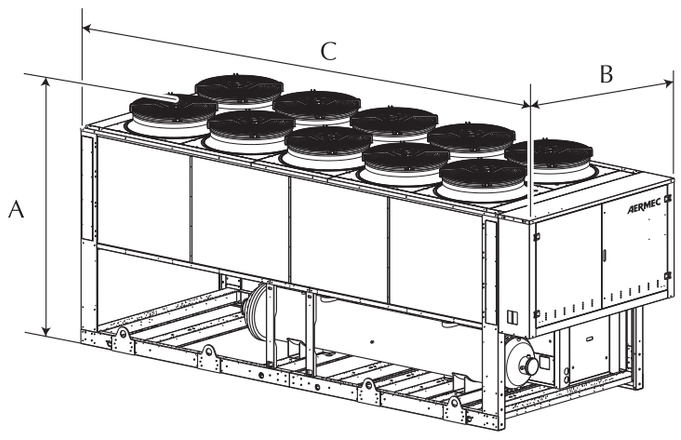
(1) Water evaporator 12°C/7°C, External air 35°C

Technical Data

				1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
Electrical data															
400V	Total input currente (cooling)	°	A	147	195	216	242	260	280	299	355	389	412	431	447
400V	Maximum current (FLA)	°	A	153	234	240	300	300	306	312	462	468	474	480	480
400V	Starting current (LRA)	°	A	24	30	36	126	126	132	138	188	194	200	206	206
400V	Total input currente (cooling)	L	A	144	198	225	244	258	287	308	345	366	396	426	449
400V	Maximum current (FLA)	L	A	153	234	240	300	300	306	312	462	462	468	474	480
400V	Starting current (LRA)	L	A	24	30	36	126	126	132	138	188	188	194	200	206
400V	Total input currente (cooling)	A	A	134	179	200	217	235	251	276	322	355	382	399	413
400V	Maximum current (FLA)	A	A	159	242	250	310	310	318	326	476	484	492	500	500
400V	Starting current (LRA)	A	A	30	38	46	136	136	144	152	202	210	218	226	226
400V	Total input currente (cooling)	E	A	132	176	209	221	238	265	275	320	337	366	396	417
400V	Maximum current (FLA)	E	A	159	242	250	310	310	318	326	476	476	484	492	500
400V	Starting current (LRA)	E	A	30	38	46	136	136	144	152	202	202	210	218	226
Centrifugal inverter oil-free Compressor															
Compressors / Circuit			n°/n°	1/1	1/1	1/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant			Type	R134a											
Heat exchanger system side															
Exchanger			Type/n°	flooded shell & tube/1											
Electrical heater			n°/W	1/170	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250
Axial fans															
Fan		°	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20	Axial/20
Air flow rate (cooling)		°	m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
Fan		L	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20
Air flow rate (cooling)		L	m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
Fan		A	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20	Ax.EC/20
Air flow rate (cooling)		A	m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
Fan		E	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20
Air flow rate (cooling)		E	m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
Sound data (cooling)															
Sound power level		°	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
Sound pressure level		°	dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
Sound power level		L	dB(A)	83	84	85	85	85	86	87	87	87	88	88	88
Sound pressure level		L	dB(A)	51	52	53	53	53	53	54	54	54	55	55	55
Sound power level		A	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
Sound pressure level		A	dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
Sound power level		E	dB(A)	81	82	83	83	83	84	85	85	85	86	86	86
Sound pressure level		E	dB(A)	49	50	51	51	51	51	52	52	52	53	53	53

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



Model. TBX			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
A	All	mm	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
B	All	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
C	**°|A**	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	9.140	10.120	11.100	11.100
	L|E	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	8.150	9.140	10.120	11.100

Cod.: STBX1401_4102_ce_co_UY.07 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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AIR / WATER CHILLERS with FREE COOLING

When the cooling of the room is requested throughout the year, even during the winter season, such as in modern communication centers or in industrial applications, it is a waste to consume energy to produce cooling capacity.
To meet these needs, Aermec offers a range of chillers capable of exploiting, free of charge, the external cold air to cool the liquid with a considerable energy saving.

AIR / WATER CHILLERS WITH FREECOOLING

		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
NRL 0280-0750F	Chiller with free cooling	-	59-194	-	336
NRB 0800-3600F	Chiller with free cooling	-	212-1004	-	340
NRB 1800-3600B	Chiller with free cooling glycol free	-	212-1004	-	348
NRV 0550F	Chiller with free cooling	-	99,9-105,4	-	356
Units with screw compressors					
NSM 1402-9603F	Chiller with free cooling	-	306-2028	-	358
NSM 1402-9603B	Chiller with free cooling glycol free	-	306-2028	-	366
NSM 1402-9603FW	Chiller with free cooling HWT	-	306-2001	-	374
NSM 1402-9603BW	Chiller with free cooling glycol free HWT	-	306-1991	-	382
NSMI 1251-4402F	Chiller with free cooling and Inverter Compressors	-	285-989	-	392

AERMEC

NRL

0280/0750 free-cooling

HFC Refrigerant R410A

Air/Water chillers for outdoor installation with free cooling
Scroll compressors, plate exchangers and axial fans
Cooling capacity from kW59÷194



- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **SYSTEM SIDE INTEGRATED HYDRONIC KIT OPTION**

Features

The NRL free cooling are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins and plate exchanger.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving. It is also possible to have the Glycol free version for all those applications where the use of glycol is not allowed

Versions
NRL_FA High efficiency
NRL_FE Silenced
NRL_BA High efficiency without the use of glycol
NRL_BE Silenced without the use of glycol

Operating range: Work up to 44°C of outdoor air temperature at full load. For further details refer to the selection software/technical documentation.

- Unit with two refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the two circuits stop.
- Flow switch, water filter and standard high and low pressure transducers
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with or without storage, one or two high static pressure pumps
- Three-way valve located on the water side for water switching on the Free-Cooling coils
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows performing the basic controls of the unit with alarm signals.
- **C-TOUCH:** 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER_EVO**: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the exchangers.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **GP:** Protection grids for coils and cooling circuit.
- **VT:** Group of anti-vibration mounts.

Accessories mounted in the factory;

- **DRE:** Peak current reduction electronic device. **Only available with 400V power supply.**
- **RIF:** power factor correction, connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **PRM1:** Manually-rearmed pressure switch, wired in series to the high pressure switch on the flow pipe of the compressor.

Accessories compatibility

Mod. NRL		Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1			•	•	•	•	•	•	•	•	•	•
PGD1			•	•	•	•	•	•	•	•	•	•
C-TOUCH			•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•
AERNET		All	•	•	•	•	•	•	•	•	•	•
GP	(1)	All	4	4	4	4	2(x2)	2(x2)	2(x3)	2(x3)	2(x3)	10 (x3)
VT		(00-P3-P4)	17	17	17	17	11	11	22	22	22	23
		(03-04)	13	13	13	13	11	11	22	22	22	23
Accessories mounted in the factory;												
DRE		400V/3N	281	301	331	351	501	551	601	651	701	751
REF		All	50	50	50	51	52	52	53	53	53	53
PRM1		All	•	•	•	•	•	•	•	•	•	•

(1) (x2)(x3) indicates the number of kit to order

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field **Description**

1,2,3 **NRL**

4,5,6,7 **Sizes**

0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 (2)

8 **Scope of application**

° Standard (temperature of water produced up to +4 °C)

Y Low temperature (temperature of water produced from +4°C to -8°C)

X Electronic thermostatic valve (temperature of water produced up to +4 °C) for different temperatures, contact the supplier

9 **Model**

F Chiller with Free cooling

K Chiller with Free cooling and low pressure drops

B Chiller with Free cooling glycol free

10 **Heat recovery**

° Without heat recovery

11 **Version**

A High efficiency

E Silenced high efficiency

12 **Coils**

° Aluminium

R Copper

S Tinned copper

V Painted

13 **Fans** (3)

° Standard

M Icreased

J Inverter

14 **Power supply**

° 400V/3N/50Hz with magnet circuit breakers

1 220V/3/50Hz with magnet circuit breakers

15-16 **System side integrated hydronic kit** (4)

00 Without hydronic kit

03 Storage tank with 1 high static pressure pump

04 Storage tank with 2 high static pressure pumps

P3 1 High static pressure pump

P4 2 High static pressure pumps

(2) Sizes 0280-0300-0330-0350 are only silenced E and are standard fitted with Inverter fans

(3) **Standard on/off fans** for sizes from 0500 to 0750
Increased on/off fans, option available for sizes from 0280 to 0650
Standard Inverter fans for sizes from 0280 to 0350, without useful static pressure
Inverter fan, option for sizes from 0500 to 0750 with useful static pressure

(4) the system side hydronic kit option is not available for the freecooling glycol free "B" models

Technical data

Freecooling Models			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	FA	kW	-	-	-	-	99	104	132	144	159	191
	FE	kW	59	65	74	82	91	95	119	130	147	177
Input power	FA	kW	-	-	-	-	33.7	37.3	44.5	51.7	60.8	69.6
	FE	kW	18.1	21.8	24.0	28.3	37.0	40.0	49.2	59.8	65.8	76.4
EER	FA	W/W	-	-	-	-	2.93	2.79	2.96	2.79	2.62	2.75
	FE	W/W	3.26	2.98	3.08	2.90	2.46	2.37	2.42	2.17	2.23	2.32
SEPR	FA		-	-	-	-	6,33	6,06	6,83	6,53	6,08	6,15
	FE		6,18	5,92	5,98	5,61	5,94	5,75	6,28	6,03	5,76	5,85
Water flow rate	FA	l/h	-	-	-	-	17030	17890	22700	24770	27350	32850
	FE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280	30440
Total pressure drops	FA	kPa	-	-	-	-	60	69	78	73	87	103
	FE	kPa	63	53	66	58	51	58	63	60	74	89
Cooling capacity	FA/FE	kW	58.0	68.0	83.0	85.0	103.0	104.0	137.0	159.0	174.0	187
Input power	FA/FE	kW	1.05	1.05	1.35	1.35	2.65	2.65	3.9	3.9	5.4	5.4
EER	FA/FE	W/W	55.24	64.76	61.48	62.96	38.87	39.25	35.13	40.77	32.22	34.63
Water flow rate	FA	l/h	-	-	-	-	16006	16815	21342	23282	25707	32850
	FE	l/h	9539	10509	11964	13258	14713	15360	19240	21018	23767	30440
Total pressure drops	FA	kPa	-	-	-	-	70	80	95	95	110	156
	FE	kPa	85	61	76	73	59	66	78	77	94	134

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C
Cooling in freecooling (100%)
Evaporator water temperature (in) 15 °C; Outdoor air temperature 2°C

Freecooling glycol free models				0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	(1)	BA/BE	kW	45	52	64	66	79	80	104	122	133	143
Input power		BA/BE	kW	1.85	1.85	2.35	2.35	3.65	3.65	5.2	5.7	7.7	7.7
EER		BA/BE	W/W	24.32	28.11	27.23	28.09	21.64	21.92	20.00	21.40	17.27	18.57
SEPR		BA		-	-	-	-	6,30	5,91	6,34	6,30	5,68	5,69
		BE		5,98	5,73	5,79	5,43	5,86	5,63	5,88	5,88	5,48	5,50
Water flow rate		BA	l/h	-	-	-	-	17030	17890	22700	24770	27350	32850
		BE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280	30440
Total pressure drops		BA/BE	kPa	-	-	-	-	60	69	78	73	87	103
		BE	kPa	63	53	66	58	51	58	63	60	74	89

Cooling in freecooling glycol free (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C
(1) Performance in cooling, operation as chiller, are the same

Freecooling with low pressure loads models			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	KA	kW	-	-	-	-	101	106	135	147	162	194
	KE	kW	60	66	76	84	93	97	121	133	150	180
Input power	KA	kW	-	-	-	-	33.7	37.3	44.5	51.7	60.8	69.6
	KE	kW	18.1	21.8	24	28.3	37	40	49.2	59.8	65.8	76.4
EER	KA	W/W	-	-	-	-	3	2.84	3.03	2.84	2.67	2.80
	KE	W/W	3.32	3.04	3.15	2.96	2.51	2.42	2.47	2.22	2.28	2.36
Water flow rate	KA	l/h	-	-	-	-	17369	18246	23158	25264	27895	33509
	KE	l/h	10351	11404	12983	14386	15965	16667	20878	22807	25790	31053
Total pressure drops	KA	kPa	-	-	-	-	44	37	42	40	49	34
	KE	kPa	34	41	36	43	38	31	34	33	42	30
Cooling capacity	KA/KE	kW	56	66	81	83	98	99	121	139	153	165
Input power	KA/KE	kW	1.05	1.05	1.35	1.35	2.65	2.65	3.9	3.9	5.4	5.4
EER	KA/KE	W/W	53.6	62.8	59.6	61.1	37	37.3	31.1	35.7	28.2	30.6
Water flow rate	KA	l/h	-	-	-	-	16330	17154	21762	23751	26224	32169
	KE	l/h	9733	10720	12207	13516	15000	15667	19628	21439	24236	29811
Total pressure drops	KA	kPa	-	-	-	-	50	44	51	51	62	64
	KE	kPa	43	45	44	53	42	37	42	42	53	55

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C
Cooling in freecooling (100%)
Evaporator water temperature (in) 15 °C; Outdoor air temperature 2°C

Technical data

GENERAL DATA				0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electrical data													
Total input current (Chiller)	(2)	FA	A	-	-	-	-	61	65	79	84	101	123
	(2)	FE	A	32	38	41	51	67	70	87	97	109	135
Total input current (freecooling)	(2)	FA/FE	A	4.6	4.6	5.9	5.9	5.9	5.9	8.7	8.7	11.6	11.6
	(2)	BA/BE	A	8.1	8.1	10.3	10.3	8.1	8.1	11.6	12.7	16.5	16.5
	(2)	KA/KE	A	4.6	4.6	5.9	5.9	5.9	5.9	8.7	8.7	11.6	11.6
Maximum current (FLA)				46	53	58	63	76	81	100	112	122	144
Peak current (LRA)			A	155	184	190	200	214	220	232	243	261	320
Compressors													
Compressors			type	scroll									
			n°	2	2	2	2	3	3	4	4	4	4
Circuits			n°	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type	R410A									
System side heat exchanger													
Heat exchanger			type	plates									
			n°	1	1	1	1	1	1	1	1	1	1
Hydraulic connections		(in/out)	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Standard Fans													
fans			type	axial									
		A	no.	-	-	-	-	2	2	2	2	3	3
		E	no.	6	6	8	8	2	2	2	2	3	3
Air flow rate in cooling mode		A	m^3/h	-	-	-	-	32500	32500	50000	49000	56000	56000
		E	m^3/h	20000	19000	25000	25000	23400	24100	33500	35300	47600	46500
System side integrated hydronic kit	(3)												
Storage tank			l	300	300	300	300	300	300	300	300	300	700
Useful static pressure		A	kPa	refer to the selection program or to the technical documentation									
Sound data													
Sound power			dB(A)	-	-	-	-	82	82	83	84	85	87
			dB(A)	74	74	75	76	76	76	76	77	77	82
Sound Pressure			dB(A)	-	-	-	-	50	50	51	52	53	55
			dB(A)	42	42	43	44	44	44	44	45	45	50
Electric power supply	(4)		V/ph/Hz	400V/3N/50Hz									

(2) The electric data is of the versions without integrated hydronic kit
(3) the system side hydronic kit option is not available for the freecooling glycol free "B" models
(4) 0750 = 400V/3/50Hz

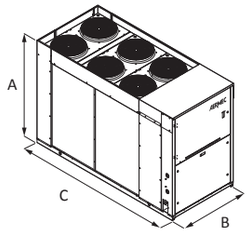
Sound power
Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

Sound Pressure
Sound pressure measured in free field, 10 m away from the unit external surface (in compliance with UNI EN ISO 3744).

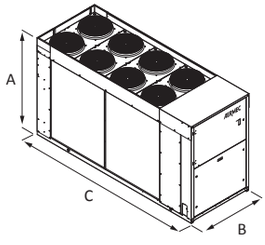
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Dimension and weight data

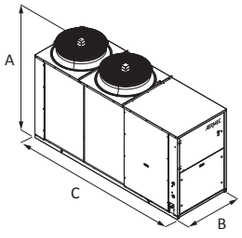
NRL 0280-0300



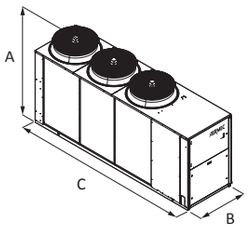
NRL 0330-0350



NRL 0500-0550-0600-0650



NRL 0700-0750



Mod. NRL	U.M.	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	(mm)		1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	(mm)		1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	(mm)	A/E 00	2950	2950	2950	2950	3260	3260	4010	4010	4010	4350
		FA/FE										
		BA/BE										
Loadless weight	(kg)	-	838	908	913	922	1079	1083	1386	1460	1540	1889

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Code: SNRLFCUY.16/1801

NRB

0800/3600 free–cooling

Air/Water chillers for outdoor installation, with Free-Cooling Scroll compressors, plate heat exchanger and axial fans Cooling capacity 212-1004kW

HFC Refrigerant R410A



Variable Multi Flow
VMF

- **HIGH EFFICIENCY EVEN WITH PARTIAL LOADS**
- **MICRO–CHANNEL COIL**
- **NIGHT–TIME MODE**

Features

NRB Free-Cooling models are chillers designed and built to meet air-conditioning requirements in residential / commercial complexes, or cooling requirements in industrial complexes. They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins, and a plate heat exchanger.
They are also fitted with a Free-Cooling coil and are used when the cooling request continues into the winter months, or in any case when the outdoor air temperature is lower than the temperature of the return liquid from the system. In Free Cooling mode (Free Cooling Plus compressors, or just Free Cooling), the fluid is cooled directly by the external air to the point that the compressors can be completely deactivated, thereby ensuring notable electricity savings. A glycol-free version is available for all those applications where the use of glycol is not permitted.

Versions

NRB_FA High-efficiency
NRB_FE High-efficiency with quiet operation
NRB_FU Super high efficiency
NRB_FN Super high efficiency with quiet operation

Operating range: The unit can work at full load with an outdoor temperature of up to 50°C, depending on the size and version. For more details, refer to the technical documentation / selection software.

- Units with 2 refrigerant circuits designed to provide the maximum output at full load, guaranteeing high efficiency even with partial loads and ensuring continuous operation even if one of the circuits stops working.
- The entire range uses micro-channel coils in aluminium, guaranteeing extremely high efficiency levels. This means less refrigerant is used compared with the traditional copper/aluminium coils.
- An electronic thermostatic valve offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
- Differential pressure switch supplied as standard.
- Butterfly valves in the hydraulic circuit for switching the water to the Free-Cooling coils.
- An optional, integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, and a range of heads.
- DCPX as standard.
- Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures or in Free-Cooling, adapting the air flow rate to the actual system request in order to reduce consumption.
- Microprocessor adjustment, allowing the condensing coils to be disconnected in order to maximise Free-Cooling efficiency even during mixed Free-Cooling and compressor operation.

- **Complete with 7" touchscreen keypad** for easy navigation through the various screens, where you can modify the operating parameters and view the real time trend of certain values in graphic format.
With Ethernet communication as standard, the same information can also be viewed on a PC by connecting it to the display (via the IP and browser).
- The timer clock can be used to set operating time bands and a second set-point if required.
- The temperature is controlled via proportional integral logic, according to the water outlet temperature.

- **Night-time mode:** this mode offers a quiet operation profile.
It's ideal for use during the night for example, as it guarantees less noise whilst still offering optimum efficiency with the highest loads.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the exchangers.
- **AERNET :**The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** This allows chiller command operations to be implemented from a distance.
- **FL:** Flow switch
Warning: the flow switch and water filter must be fitted. Otherwise, the warranty will be considered null.
- **FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
- **AVX:** Anti-vibration spring supports.

Accessories installed in the factory

- **DRE**: Electronic device for reducing the rated starting current.
- **RIF**: Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- **GP**: Anti-intrusion grille.
- **COMPATIBILITY with the VMF SYSTEM**
For further information about the system see the specific documentation.

Compatibility of accessories

NRB mod.	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories installed in the factory																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Size** (1)

0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Field of use**

- **°** Standard (processed water up to +4°C)
- **Y** Low temperature (processed water from +4°C to -10°C)
- **X** Electronic thermostatic valve (processed water up to +4°C)
- **Z** Electronic thermostatic valve low temperature (processed water from +4°C to -10°C)

9 **Model**

- **F** Free Cooling
- **P** Free cooling plus (2)

10 **Heat recovery**

- **°** Without heat recovery
- **D** With desuperheater(3)

11 **Version**

- **A** High efficiency
- **E** Silenced high efficiency
- **U** Extra high efficiency
- **N** Silenced extra high efficiency

12 **Condensing coils**

- **°** Micro-channel aluminium
- **O** Painted micro-channel aluminium
- **R** Copper - Copper
- **S** Copper - Tin-plated
- **V** Painted copper / aluminium

Free Cooling water coils

Copper Aluminium
Copper Painted aluminium
Copper - Copper
Copper - Tin-plated
Copper Painted aluminium

13 **Fans**

- **°** Standard
- **J** Inverter

14 **Power supply**

- **°** 400V/3/50Hz with circuit breakers on the compressors and auxiliary circuit

15-16 **Integrated hydronic kit**

- **00** Without hydronic kit

With 1 pump:

- **PA** Pump A
- **PB** Pump B
- **PC** Pump C
- **PD** Pump D
- **PE** Pump E
- **PF** Pump F
- **PG** Pump G
- **PH** Pump H
- **PI** Pump I
- **PJ** Pump J

With 2 pumps:

- **DA** Pump A and reserve pump
- **DB** Pump B and reserve pump
- **DC** Pump C and reserve pump
- **DD** Pump D and reserve pump
- **DE** Pump E and reserve pump
- **DF** Pump F and reserve pump
- **DG** Pump G and reserve pump
- **DH** Pump H and reserve pump
- **DI** Pump I and reserve pump
- **DJ** Pump J and reserve pump

With 1 pump and accumulation tank:

- **AA** Pump A and accumulation tank
- **AB** Pump B and accumulation tank
- **AC** Pump C and accumulation tank
- **AD** Pump D and accumulation tank
- **AE** Pump E and accumulation tank
- **AF** Pump F and accumulation tank
- **AG** Pump G and accumulation tank
- **AH** Pump H and accumulation tank
- **AI** Pump I and accumulation tank
- **AJ** Pump J and accumulation tank

With 2 pumps and accumulation tank:

- **BA** Pump A with reserve pump and accumulation tank
- **BB** Pump B with reserve pump and accumulation tank
- **BC** Pump C with reserve pump and accumulation tank
- **BD** Pump D with reserve pump and accumulation tank
- **BE** Pump E with reserve pump and accumulation tank
- **BF** Pump F with reserve pump and accumulation tank
- **BG** Pump G with reserve pump and accumulation tank
- **BH** Pump H with reserve pump and accumulation tank
- **BI** Pump I with reserve pump and accumulation tank
- **BJ** Pump J with reserve pump and accumulation tank

(1) Sizes 1800 - 3600 have an electronic thermostatic valve fitted as standard
(2) **The Free-Cooling Plus "P" models are only compatible with "°" and "O" coils**
(3) "D" heat recovery units not compatible with operating ranges "Y" and "Z" (no YD - ZD)

Technical data

NRB - FA				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	212	234	273	307	336	373	432	474	542	584	656	720	760	803	878	922	962
	Absorbed power	(1)	kW	76	88	94	109	125	146	157	185	201	229	244	259	280	308	321	348	375
	EER	(1)		2.79	2.66	2,91	2,82	2.69	2.56	2.75	2.56	2,70	2.55	2.69	2,78	2,71	2.61	2.73	2.65	2.57
	SEPR			6,23	5,76	6,02	6,10	5,80	5,25	6,07	5,54	5,77	5,53	5,79	5,99	5,69	5,50	5,72	5,53	5,53
	Water flow rate	(1)	l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(1)	kPa	49	50	68	76	91	99	64	68	88	96	122	71	78	82	99	108	118
15°C	Cooling power	(2)	kW	181,7	184,6	264,1	270,9	275,1	279,1	364,6	369,8	456,1	461,3	548,0	632,6	638,6	644,2	731,2	736,7	741,0
	Absorbed power	(2)	kW	7.5	7.5	11,2	11,2	11,2	11,2	15,0	15,0	18,7	18,7	22,5	26.2	26.2	26.2	30,0	30,0	30,0
	EER	(2)		24,2	24,6	23,5	24,1	24,5	24,8	24,3	24,7	24,3	24,6	24,4	24,1	24,3	24,5	24,4	24,6	24,7
	Water flow rate	(2)	l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(2)	kPa	88	97	101	117	139	158	112	125	144	161	188	119	132	142	159	175	190

NRB - FE				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	221	243	265	310	345	379	439	498	547	610	653	714	753	816	886	926	967
	Absorbed power	(1)	kW	73	84	96	107	122	142	155	175	199	219	245	258	279	300	317	343	369
	EER	(1)		3,00	2,88	2.77	2,91	2,82	2,67	2,82	2.85	2.75	2,78	2,67	2.77	2,70	2.72	2,80	2,70	2,62
	SEPR			6,97	6,30	6,09	6,33	6,14	5,49	6,27	6,17	5,79	5,89	5,71	5,97	5,63	5,71	5,93	5,60	5,57
	Water flow rate	(1)	l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(1)	kPa	44	53	57	82	90	109	58	75	85	89	102	69	77	85	100	109	119
15 °C	Cooling power	(2)	kW	214,0	219,0	223,0	289,2	295,9	300,6	371,1	440,5	448,2	518,9	524,8	595,6	600,6	671,7	743,5	749,0	753,6
	Absorbed power	(2)	kW	7,9	7,9	7,9	10,5	10,5	10,5	13,1	15,8	15,8	18,4	18,4	21,0	21,0	23,6	26,3	26,3	26,3
	EER	(2)		27.2	27,8	28,3	27,5	28,2	28.6	28,3	28,0	28,5	28,2	28.6	28,4	28.6	28,4	28,3	28,5	28,7
	Water flow rate	(2)	l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(2)	kPa	67	80	88	120	136	165	95	114	132	139	159	110	122	132	150	163	178

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)		(2)	A	134	152	165	189	215	248	270	316	347	394	423	450	483	529	557	602	646
Total input current (Free-Cooling)	FA		A	15	15	23	23	23	23	30	30	38	38	46	53	53	53	61	61	61
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)		(2)	A	126	142	160	179	205	236	258	292	333	368	411	432	465	501	531	575	619
Total input current (Free-Cooling)	FE		A	11	11	11	15	15	15	18	22	22	26	26	29	29	33	37	37	37
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	see the technical documentation																
Standard axial fans																				
Fans	FA		no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate, cooling			m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
Fans	FE		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
Sound Data																				
sound power level	FA		dB(A)	88,0	88,1	90,3	90.2	90.2	90.2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
	FE		dB(A)	85.0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91.0	91,5	92,2	92,2	92,8	93,4	93,4	93,4

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - FU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	276	320	358	396	455	516	569	634	681	742	785	849	920	965	1011
	Absorbed power	(1)	kW	74	84	94	106	121	138	153	173	195	216	238	253	272	294	312	335	358
	EER	(1)		3.08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2.92	2.94	2,86	2,93	2,88	2,89	2,95	2,88	2.83
	SEPR			7,09	6,79	6,52	6,78	6,50	5,97	6,64	6,55	6,28	6,29	6,14	6,41	6,06	6,11	6,31	6,05	5,94
	Water flow rate	(1)	l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(1)	kPa	47	57	61	88	97	120	62	81	92	96	111	75	84	92	108	118	130
15°C	Cooling power	(2)	kW	250,5	258,2	264,7	339,9	350,6	358,8	440,2	520,4	533,3	615,3	625,6	707,4	716,3	799,0	882,4	892,2	900,7
	Absorbed power	(2)	kW	11,2	11,2	11,2	15,0	15,0	15,0	18,7	22,5	22,5	26.2	26.2	30,0	30,0	33,7	37,5	37,5	37,5
	EER	(2)		22.3	23,0	23,5	22,7	23,4	23,9	23,5	23,1	23,7	23,5	23,8	23,6	23,9	23,7	23,5	23,8	24.0
	Water flow rate	(2)	l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(2)	kPa	71	86	95	128	147	179	103	122	142	150	173	119	133	143	161	177	194

NRB - FN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	228	252	278	320	358	397	454	511	563	628	675	728	769	837	900	943	985
	Absorbed power	(1)	kW	73	82	92	105	119	136	151	171	194	213	236	253	273	292	312	337	362
	EER	(1)		3.15	3,07	3,01	3.06	3,02	2,91	3,01	2,98	2.90	2.94	2,86	2,88	2,82	2,86	2,88	2,80	2.72
	SEPR			7,32	7,12	6,83	6,96	6,67	6,10	6,69	6,55	6,19	6,26	6,04	6,22	5,87	6,01	6,08	5,79	5,66
	Water flow rate	(1)	l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(1)	kPa	50	61	66	88	98	120	63	79	90	94	109	72	80	90	103	113	123
15°C	Cooling power	(2)	kW	263,0	272,4	280,8	342,2	354,1	363,5	431,2	498,3	510,5	580,2	589,4	657,1	664,7	735,5	805,1	812,8	819,4
	Absorbed power	(2)	kW	10,5	10,5	10,5	13,1	13,1	13,1	15,8	18,4	18,4	21,0	21,0	23,6	23,6	26,3	28,9	28,9	28,9
	EER	(2)		25.0	25,9	26,7	26,1	27.0	27,7	27,4	27,1	27,8	27,6	28,1	27,8	28,1	28,0	27,9	28,1	28,4
	Water flow rate	(2)	l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(2)	kPa	71	86	96	121	139	171	95	115	133	143	164	110	122	134	151	165	180

Data

(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)		(2)	A	133	149	166	189	212	240	267	304	341	379	418	444	474	513	547	587	626
Total input current (Free-Cooling)	FU		A	23	23	23	30	30	30	38	46	46	53	53	61	61	68	76	76	76
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)		(2)	A	124	140	156	177	199	227	251	287	325	360	399	425	457	490	525	567	608
Total input current (Free-Cooling)	FN		A	15	15	15	18	18	18	22	26	26	29	29	33	33	37	40	40	40
Maximum current (FLA)			A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)			A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	FU		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Fans	FN		no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate, cooling			m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
Sound Data																				
sound power level	FU		dB(A)	90.2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
	FN		dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90.0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9

(2) Unit with standard configuration and operation, without integrated hydronic kit

Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - PA				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	210	232	272	305	333	370	429	470	538	579	651	715	754	797	872	915	954
	Absorbed power	(1)	kW	77	89	95	110	126	148	159	187	203	232	247	262	283	312	325	352	380
	EER	(1)		2,74	2.61	2.87	2.77	2,64	2,50	2,70	2.51	2.65	2,49	2,64	2.73	2.66	2.56	2,68	2.60	2.51
	SEPR			6,28	5,77	6,01	6,16	5,83	5,24	6,12	5,54	5,81	5,54	5,83	6,05	5,74	5,51	5,74	5,54	5,52
	Water flow rate	(1)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(1)	kPa	48	49	67	75	89	97	63	66	87	95	120	70	77	81	97	106	116
15 °C	Cooling power	(2)	kW	194,7	197,6	283,1	290,3	294,6	298,4	390,7	395,6	488,6	493,7	587,0	678,1	684,2	689,6	783,3	788,6	792,7
	Absorbed power	(2)	kW	7,6	7,6	11,4	11,4	11,4	11,4	15,2	15,2	19,0	19,0	22,9	26,7	26,7	26,7	30,5	30,5	30,5
	EER	(2)		25,6	25,9	24,8	25,4	25.8	26,1	25,6	26,0	25,7	25,9	25,7	25,4	25,7	25,9	25,7	25,9	26,0
	Water flow rate	(2)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(2)	kPa	86	95	100	116	137	155	110	123	142	158	185	117	130	140	157	172	186

NRB - PE				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	219	241	263	308	342	376	435	495	542	605	647	708	746	809	879	918	957
	Absorbed power	(1)	kW	74	85	97	108	124	144	157	177	202	222	248	261	282	303	320	347	374
	EER	(1)		2.96	2.83	2.72	2,86	2.76	2.61	2.77	2,80	2.69	2.73	2.61	2.72	2,64	2,67	2,74	2,64	2.56
	SEPR			6,96	6,35	6,12	6,39	6,17	5,49	6,30	6,21	5,81	5,91	5,71	5,98	5,63	5,71	5,94	5,60	5,56
	Water flow rate	(1)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(1)	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
15 °C	Cooling power	(2)	kW	227,5	233,2	237,5	307,8	315,2	320,1	395,2	469,1	477,4	552,7	558,9	634,3	639,5	715,4	791,9	797,6	802,2
	Absorbed power	(2)	kW	8,0	8,0	8,0	10,7	10,7	10,7	13,3	16,0	16,0	18,6	18,6	21.3	21.3	24.0	26,6	26,6	26,6
	EER	(2)		28,5	29,2	29,7	28,9	29,6	30,0	29,7	29,4	29,9	29,6	30,0	29,8	30,0	29,8	29,7	29,9	30,1
	Water flow rate	(2)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(2)	kPa	66	79	87	118	134	162	94	113	130	137	156	108	120	130	147	160	174

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)		(2)	A	135	154	167	191	217	251	272	320	351	399	427	454	487	534	562	608	653
Total input current (Free-Cooling)	PA		A	15	15	23	23	23	23	31	31	38	38	46	54	54	54	61	61	61
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)		(2)	A	126	144	162	181	206	238	260	294	336	372	415	436	470	506	536	581	626
Total input current (Free-Cooling)	PE		A	11	11	11	15	15	15	18	22	22	26	26	30	30	33	37	37	37
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	PA		no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate, cooling			m³/h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400	191800	191800	191800	219200	219200	230400
Fans	PE		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200	164800	164800	185400	206000	206000	216000
Sound Data																				
sound power level	PA		dB(A)	88,0	88,1	90,3	90.2	90.2	90.2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
	PE		dB(A)	85.0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91.0	91,5	92,2	92,2	92,8	93,4	93,4	93,4

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - PU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	226	250	274	319	356	394	453	513	566	630	677	738	780	844	915	959	1004
	Absorbed power	(1)	kW	74	84	95	107	122	140	155	175	197	218	241	255	275	297	315	338	361
	EER	(1)		3,04	2.96	2,89	2,97	2.92	2,82	2,93	2.94	2.87	2,89	2,81	2,89	2,84	2.85	2,91	2,84	2,78
	SEPR			7,09	6,87	6,53	6,53	6,49	6,04	6,64	6,65	6,37	6,39	6,19	6,51	6,15	6,21	6,41	6,13	6,01
	Water flow rate	(1)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(1)	kPa	46	57	60	87	96	118	62	80	91	95	110	74	83	91	106	117	128
15 °C	Cooling power	(2)	kW	267,7	276,5	283,7	363,7	375,7	384,7	471,8	557,5	571,7	659,5	670,6	758,2	767,9	856,5	945,9	956,4	965,5
	Absorbed power	(2)	kW	11,4	11,4	11,4	15,2	15,2	15,2	19,0	22,9	22,9	26,7	26,7	30,5	30,5	34,3	38,1	38,1	38,1
	EER	(2)		23,4	24,2	24,8	23,9	24,7	25,3	24,8	24,4	25.0	24,7	25.2	24,9	25.2	25.0	24,8	25,1	25,4
	Water flow rate	(2)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(2)	kPa	70	85	94	126	145	177	102	121	141	148	171	118	131	141	159	175	191

NRB - PN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	277	319	356	395	452	508	560	625	671	724	764	831	894	936	978
	Absorbed power	(1)	kW	73	83	93	105	120	138	152	173	196	216	239	256	276	296	316	341	366
	EER	(1)		3.11	3.03	2,97	3,02	2,98	2.87	2,97	2.94	2,86	2.90	2,81	2.83	2.77	2,81	2.83	2.75	2,67
	SEPR			7,31	7,12	6,82	6,82	6,67	6,15	6,74	6,64	6,25	6,32	6,08	6,28	5,91	6,04	6,12	5,82	5,68
	Water flow rate	(1)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(1)	kPa	50	60	65	87	97	119	62	78	89	93	108	71	79	88	102	111	122
15 °C	Cooling power	(2)	kW	277,0	288,3	298,1	362,3	376,2	387,0	458,8	529,6	543,5	617,5	627,7	699,7	708,0	783,3	857,4	865,8	872,8
	Absorbed power	(2)	kW	10,7	10,7	10,7	13,3	13,3	13,3	16,0	18,6	18,6	21.3	21.3	24.0	24.0	26,6	29,3	29,3	29,3
	EER	(2)		26,0	27,1	28,0	27.2	28,3	29.1	28,7	28,4	29,2	29.0	29,5	29,2	29,5	29,4	29,3	29,6	29,8
	Water flow rate	(2)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(2)	kPa	70	86	96	120	138	169	94	114	132	141	162	108	121	132	149	163	177

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

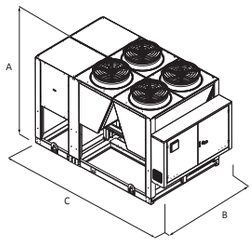
				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)	PU	(2)	A	134	150	167	190	213	242	269	306	344	382	421	447	478	517	551	591	631
Total input current (Free-Cooling)			A	23	23	23	31	31	31	38	46	46	54	54	61	61	69	77	77	77
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)	PN	(2)	A	125	141	157	178	201	229	253	289	328	362	402	429	461	494	529	572	614
Total input current (Free-Cooling)			A	15	15	15	18	18	18	22	26	26	30	30	33	33	37	41	41	41
Maximum current (FLA)			A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)			A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	PU		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000
Fans	PN		no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate, cooling			m³/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600
Sound Data																				
sound power level	PU		dB(A)	90.2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
	PN		dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90.0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

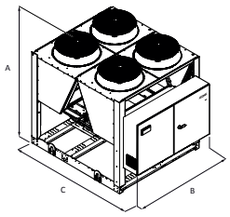
Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

Dimensions (mm)

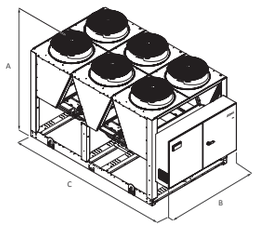
(1) Versions with accumulation tank
NRB0800-0900 A (*)



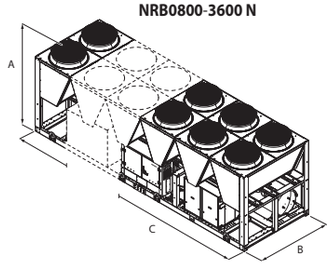
NRB0900A



NRB1000-1400 A
NRB0800-1000 E/U



NRB1600-3600 A
NRB1100-3600 E/U
NRB0800-3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	A	ALL	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	B	ALL	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C		A	mm	2780*	2780*	3970	3970	3970	3970	5160	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
		E	mm	3970	3970	3970	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		U	mm	3970	3970	3970	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		N	mm	5160	5160	5160	6350	6350	6350	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Empty weight		A	kg	2570	2620	3260	3330	3370	3420	4080	4210	4850	4970	5560	6570	6820	6970	7600	7730	7810
		E	kg	3080	3130	3290	3990	4060	4080	4660	5250	5380	6180	6280	7110	7360	8040	8630	8720	8800
		U	kg	3080	3130	3290	3990	4060	4080	4660	5250	5380	6180	6280	7110	7360	8040	8630	8720	8800
		N	kg	3760	3800	3960	4530	4610	4630	5160	5840	5970	6720	6820	7640	7890	8500	9170	9250	9330

* Depth of models without hydronic kit or with pumps. For models with an accumulation tank, the depth is 3970mm

Code: SNRB0800_3600FCUY.01 / 1801

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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NRB
0800/3600
glycol–free

Air/Water chillers for outdoor installation, with Free Cooling (glycol-free)
Scroll compressors, plate heat exchanger and axial fans
Cooling capacity 212-1004kW

HFC
Refrigerant
R410A



Variable Multi Flow
VMF

- **HIGH EFFICIENCY EVEN WITH PARTIAL LOADS**
- **MICRO–CHANNEL COIL**
- **NIGHT–TIME MODE**

Features

NRB Free-Cooling models are chillers designed and built to meet air-conditioning requirements in residential / commercial complexes, or cooling requirements in industrial complexes. They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins, and a plate heat exchanger.
They are also fitted with a Free-Cooling coil and are used when the cooling request continues into the winter months, or in any case when the outdoor air temperature is lower than the temperature of the return liquid from the system. In Free Cooling mode (Free Cooling Plus compressors, or just Free Cooling), the fluid is cooled directly by the external air to the point that the compressors can be completely deactivated, thereby ensuring notable electricity savings. A glycol-free version is available for all those applications where the use of glycol is not permitted.

Versions

NRB_FA High-efficiency
NRB_FE High-efficiency with quiet operation
NRB_FU Super high efficiency
NRB_FN Super high efficiency with quiet operation

Operating range: The unit can work at full load with an outdoor temperature of up to 50°C, depending on the size and version. For more details, refer to the technical documentation / selection software.

- Units with 2 refrigerant circuits designed to provide the maximum output at full load, guaranteeing high efficiency even with partial loads and ensuring continuous operation even if one of the circuits stops working.
- The entire range uses micro-channel coils in aluminium, guaranteeing extremely high efficiency levels. This means less refrigerant is used compared with the traditional copper/aluminium coils.
- An electronic thermostatic valve offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
- Differential pressure switch supplied as standard.
- Intermediate plate heat exchanger that creates two circuits:
  the glycol hydraulic circuit (glycol is added to protect the coil from freezing),
  and the primary hydraulic circuit for glycol-free systems.
- An optional, integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, and a range of heads.
- DCPX as standard.
- Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures or in Free-Cooling, adapting the air flow rate to the actual system request in order to reduce consumption.
- Microprocessor adjustment, allowing the condensing coils to be disconnected in order to maximise Free-Cooling efficiency even during mixed Free-Cooling and compressor operation.

- **Complete with 7" touchscreen keypad** for easy navigation through the various screens, where you can modify the operating parameters and view the real time trend of certain values in graphic format.
  With Ethernet communication as standard, the same information can also be viewed on a PC by connecting it to the display (via the IP and browser).
- The timer clock can be used to set operating time bands and a second set-point if required.
- The temperature is controlled via proportional integral logic, according to the water outlet temperature.

- **Night-time mode:** this mode offers a quiet operation profile.
  It's ideal for use during the night for example, as it guarantees less noise whilst still offering optimum efficiency with the highest loads.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** This allows chiller command operations to be implemented from a distance.
- **MULTICHILLER_EVO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators.
- **FL:** Flow switch
  Warning: the flow switch and water filter must be fitted. Otherwise, the warranty will be considered null.
- **FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
- **AVX:** Anti-vibration spring supports.

Accessories installed in the factory

- **DRE**: Electronic device for reducing the rated starting current.
- **RIF**: Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- **GP**: Anti-intrusion grille.
- **COMPATIBILITY with the VMF SYSTEM**
  For further information about the system see the specific documentation.

Compatibility of accessories

NRB mod.	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories installed in the factory																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Description**

1,2,3 **NRB**

4,5,6,7 **Size** (1)

0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

8 **Field of use**

° Standard (processed water up to +4°C)
Y Low temperature (processed water from +4°C to -10°C)
X Electronic thermostatic valve (processed water up to +4°C)
Z Electronic thermostatic valve low temperature (processed water from +4°C to -10°C)

9 **Model**

B Free-Cooling (glycol-free)
G Free-Cooling Plus (glycol-free) (2)

10 **Heat recovery**

° Without heat recovery
D With desuperheater(3)

11 **Version**

A High efficiency
E Silenced high efficiency
U Extra high efficiency
N Silenced extra high efficiency

12 **Condensing coils** — **Free Cooling water coils**

° Micro-channel aluminium — Copper Aluminium
O Painted micro-channel aluminium — Copper Painted aluminium
R Copper - Copper (3) — Copper - Copper
S Copper - Tin-plated (3) — Copper - Tin-plated
V Painted copper / aluminium (3) — Copper Painted aluminium

13 **Fans**

° Standard
J Inverter

14 **Power supply**

° 400V/3/50Hz with circuit breakers on the compressors and auxiliary circuit

15-16 **Integrated hydronic kit**

00 Without hydronic kit

With 1 pump:

PA Pump A
PB Pump B
PC Pump C
PD Pump D
PE Pump E
PF Pump F
PG Pump G
PH Pump H
PI Pump I
PJ Pump J

With 2 pumps:

DA Pump A and reserve pump
DB Pump B and reserve pump
DC Pump C and reserve pump
DD Pump D and reserve pump
DE Pump E and reserve pump
DF Pump F and reserve pump
DG Pump G and reserve pump
DH Pump H and reserve pump
DI Pump I and reserve pump
DJ Pump J and reserve pump

(1) Sizes 1800 - 3600 have an electronic thermostatic valve fitted as standard
(2) **The Free-Cooling glycol-free Plus "G" models are only compatible with "°" and "O" coils**
(3) "D" heat recovery units not compatible with operating ranges "Y" and "Z" (no YD - ZD)

Technical data

NRB - BA				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	212	234	273	307	336	373	432	474	542	584	656	720	760	803	878	922	962
	Absorbed power	(1)	kW	76	88	94	109	125	146	157	185	201	229	244	259	280	308	321	348	375
	EER	(1)		2.79	2.66	2,91	2,82	2.69	2.56	2.75	2.56	2,70	2.55	2.69	2,78	2,71	2.61	2.73	2.65	2.57
	SEPR			5,84	5,42	5,50	5,62	5,41	4,92	5,60	5,11	5,41	5,21	5,47	5,59	5,33	5,18	5,32	5,13	5,17
	Water flow rate	(1)	l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(1)	kPa	75	83	101	118	129	150	128	151	134	144	156	123	138	144	174	192	195
15°C	Cooling power	(2)	kW	151,9	154,4	209,7	218,5	223,2	229,6	303,4	307,4	387,9	391,5	467,8	542,0	545,7	555,9	617,4	620,3	622,6
	Absorbed power	(2)	kW	9,8	9,8	14,3	14,3	14,4	14,4	19.2	19.2	24,4	24,4	32,1	37,2	37,2	37,3	41,2	41,2	41,2
	EER	(2)		15,5	15,7	14,6	15,2	15,5	16,0	15,8	16,0	15,9	16,1	14,6	14,6	14,6	14,9	15,0	15,1	15,1
	Water flow rate	(2)	l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(2)	kPa	75	83	101	118	129	150	128	151	134	144	156	123	138	144	174	192	195

NRB - BE				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	221	243	265	310	345	379	439	498	547	610	653	714	753	816	886	926	967
	Absorbed power	(1)	kW	73	84	96	107	122	142	155	175	199	219	245	258	279	300	317	343	369
	EER	(1)		3,00	2,88	2.77	2,91	2,82	2,67	2,82	2.85	2.75	2,78	2,67	2.77	2,70	2.72	2,80	2,70	2,62
	SEPR			6,44	5,86	5,67	5,87	5,73	5,15	5,77	5,66	5,47	5,47	5,37	5,59	5,28	5,33	5,50	5,22	5,18
	Water flow rate	(1)	l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(1)	kPa	70	79	93	113	126	152	125	158	131	158	156	122	137	150	179	183	199
15 °C	Cooling power	(2)	kW	176,2	179,3	182,0	237,8	243,8	247,3	310,9	377,7	391,8	445,7	449,8	512,0	515,4	572,3	634,0	637,2	639,9
	Absorbed power	(2)	kW	11,0	11,0	11,0	14,6	14,6	14,6	18.5	24,8	25,3	28,9	28,9	32,1	32,1	34.9	41.3	41.3	41.3
	EER	(2)		16,1	16,4	16,6	16,3	16,7	16,9	16,8	15,2	15,5	15,4	15,6	15,9	16,0	16,4	15,3	15,4	15,5
	Water flow rate	(2)	l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(2)	kPa	70	79	93	113	126	152	125	158	131	158	156	122	137	150	179	183	199

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)		(2)	A	134	152	165	189	215	248	270	316	347	394	423	450	483	529	557	602	646
Total input current (Free-Cooling)	BA		A	19	19	28	28	29	29	38	38	48	48	62	72	72	72	80	80	80
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)		(2)	A	126	142	160	179	205	236	258	292	333	368	411	432	465	501	531	575	619
Total input current (Free-Cooling)	BE		A	17	17	17	22	22	22	27	37	38	43	43	48	48	52	61	61	61
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	BA		no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate, cooling			m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
Fans	BE		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
Sound Data																				
sound power level	BA		dB(A)	88,0	88,1	90,3	90.2	90.2	90.2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
	BE		dB(A)	85.0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91.0	91,5	92,2	92,2	92,8	93,4	93,4	93,4

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - BU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	276	320	358	396	455	516	569	634	681	742	785	849	920	965	1011
	Absorbed power	(1)	kW	74	84	94	106	121	138	153	173	195	216	238	253	272	294	312	335	358
	EER	(1)		3.08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2.92	2.94	2,86	2,93	2,88	2,89	2,95	2,88	2.83
	SEPR			6,60	6,17	5,93	6,14	5,95	5,48	5,98	5,88	5,84	5,74	5,66	5,88	5,60	5,63	5,72	5,55	5,43
	Water flow rate	(1)	l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(1)	kPa	74	84	101	120	136	166	135	169	142	171	170	132	149	163	193	198	217
15°C	Cooling power	(2)	kW	202,1	206,3	210,0	273,0	281,2	286,0	360,0	438,5	458,1	518,7	524,0	596,2	600,7	665,1	736,4	740,5	744,0
	Absorbed power	(2)	kW	14,3	14,3	14,3	19,1	19,1	19,1	24,1	31,6	32,0	36,8	36,8	41,1	41,1	45,0	52,6	52,6	52,6
	EER	(2)		14,1	14,4	14,7	14,3	14,7	15,0	14,9	13,9	14,3	14,1	14,3	14,5	14,6	14,8	14,0	14,1	14,2
	Water flow rate	(2)	l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(2)	kPa	74	84	101	120	136	166	135	169	142	171	170	132	149	163	193	198	217

NRB - BN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	228	252	278	320	358	397	454	511	563	628	675	728	769	837	900	943	985
	Absorbed power	(1)	kW	73	82	92	105	119	136	151	171	194	213	236	253	273	292	312	337	362
	EER	(1)		3.15	3,07	3,01	3.06	3,02	2,91	3,01	2,98	2.90	2.94	2,86	2,88	2,82	2,86	2,88	2,80	2.72
	SEPR			6,94	6,53	6,27	6,31	6,10	5,65	6,13	5,91	5,78	5,74	5,61	5,81	5,50	5,59	5,63	5,35	5,21
	Water flow rate	(1)	l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(1)	kPa	70	80	96	120	136	158	131	166	139	168	167	119	134	158	174	194	209
15 °C	Cooling power	(2)	kW	220,3	225,4	229,9	276,8	285,8	297,7	372,1	419,7	440,5	490,1	495,0	564,0	568,3	629,6	677,5	681,1	684,2
	Absorbed power	(2)	kW	14,5	14,5	14,5	18,1	18,2	18,2	24,8	28,3	28,9	31,6	31,6	34.9	34.9	41.3	44,0	44,0	44,0
	EER	(2)		15,1	15,5	15,8	15,3	15,7	16,3	15,0	14,9	15,2	15,5	15,7	16.2	16,3	15,2	15,4	15,5	15,5
	Water flow rate	(2)	l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(2)	kPa	70	80	96	120	136	158	131	166	139	168	167	119	134	158	174	194	209

Data

(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)		(2)	A	133	149	166	189	212	240	267	304	341	379	418	444	474	513	547	587	626
Total input current (Free-Cooling)	BU		A	28	28	28	37	37	37	47	61	62	71	71	79	79	87	101	101	101
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)		(2)	A	124	140	156	177	199	227	251	287	325	360	399	425	457	490	525	567	608
Total input current (Free-Cooling)	BN		A	21	21	21	27	27	27	37	42	43	47	47	52	52	61	65	65	65
Maximum current (FLA)			A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)			A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	BU		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Fans	BN		no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate, cooling			m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
Sound Data																				
sound power level	BU		dB(A)	90.2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
	BN		dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90.0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9

(2) Unit with standard configuration and operation, without integrated hydronic kit

Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - GA				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	210	232	272	305	333	370	429	470	538	579	651	715	754	797	872	915	954
	Absorbed power	(1)	kW	77	89	95	110	126	148	159	187	203	232	247	262	283	312	325	352	380
	EER	(1)		2,74	2.61	2.87	2.77	2,64	2,50	2,70	2.51	2.65	2,49	2,64	2.73	2.66	2.56	2,68	2.60	2.51
	SEPR			5,82	5,37	5,48	5,60	5,37	4,87	5,57	5,06	5,39	5,17	5,45	5,58	5,31	5,15	5,29	5,10	5,12
	Water flow rate	(1)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(1)	kPa	74	82	100	117	127	147	126	148	132	141	154	121	136	141	171	189	192
15 °C	Cooling power	(2)	kW	158,9	161,6	218,0	227,5	232,6	239,7	316,8	321,1	405,9	409,8	490,2	568,1	572,1	583,7	646,3	649,5	652,0
	Absorbed power	(2)	kW	9,9	9,9	14,5	14,5	14,6	14,6	19,5	19,5	24,6	24,6	32,4	37,7	37,7	37,7	41.7	41.7	41.7
	EER	(2)		16,0	16,3	15,0	15,7	16,0	16,5	16,3	16,5	16,5	16,6	15,1	15,1	15,2	15,5	15,5	15,6	15,6
	Water flow rate	(2)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(2)	kPa	74	82	100	117	127	147	126	148	132	141	154	121	136	141	171	189	192

NRB - GE				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	219	241	263	308	342	376	435	495	542	605	647	708	746	809	879	918	957
	Absorbed power	(1)	kW	74	85	97	108	124	144	157	177	202	222	248	261	282	303	320	347	374
	EER	(1)		2.96	2.83	2.72	2,86	2.76	2.61	2.77	2,80	2.69	2.73	2.61	2.72	2,64	2,67	2,74	2,64	2.56
	SEPR			6,42	5,83	5,62	5,85	5,69	5,10	5,74	5,64	5,44	5,44	5,32	5,55	5,23	5,29	5,46	5,18	5,13
	Water flow rate	(1)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(1)	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
15 °C	Cooling power	(2)	kW	182,8	186,2	189,1	247,0	253,3	257,2	323,4	393,2	408,6	464,2	468,6	533,4	537,1	596,1	660,4	663,7	666,7
	Absorbed power	(2)	kW	11,1	11,1	11,1	14,7	14,8	14,8	18,7	25.0	25,5	29,2	29,2	32,4	32,4	35,3	41.7	41.7	41.7
	EER	(2)		16,5	16,8	17.1	16,8	17,2	17,4	17.3	15,7	16,0	15,9	16,1	16,5	16,6	16,9	15,8	15,9	16,0
	Water flow rate	(2)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(2)	kPa	69	78	92	111	124	150	123	156	129	156	153	120	134	148	176	179	195

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)	GA	(2)	A	135	154	167	191	217	251	272	320	351	399	427	454	487	534	562	608	653
Total input current (Free-Cooling)			A	20	20	29	29	29	29	38	38	48	48	62	72	72	72	80	80	80
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)	GE	(2)	A	126	144	162	181	206	238	260	294	336	372	415	436	470	506	536	581	626
Total input current (Free-Cooling)			A	17	17	17	22	22	22	28	38	38	43	43	48	48	52	62	62	62
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	GA		no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate, cooling			m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
Fans	GE		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
Sound Data																				
sound power level	GA		dB(A)	88,0	88,1	90,3	90.2	90.2	90.2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
	GE		dB(A)	85.0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91.0	91,5	92,2	92,2	92,8	93,4	93,4	93,4

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

Technical data

NRB - GU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	226	250	274	319	356	394	453	513	566	630	677	738	780	844	915	959	1004
	Absorbed power	(1)	kW	74	84	95	107	122	140	155	175	197	218	241	255	275	297	315	338	361
	EER	(1)		3,04	2.96	2,89	2,97	2.92	2,82	2,93	2.94	2.87	2,89	2,81	2,89	2,84	2.85	2,91	2,84	2,78
	SEPR			6,61	6,17	5,92	5,92	5,94	5,46	5,98	5,89	5,84	5,74	5,66	5,88	5,58	5,61	5,72	5,53	5,41
	Water flow rate	(1)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(1)	kPa	73	84	99	119	134	164	133	168	141	169	168	131	147	161	191	196	215
15°C	Cooling power	(2)	kW	209,8	214,3	218,2	283,3	292,2	297,4	374,7	457,1	479,5	541,3	547,2	622,7	627,7	693,9	768,5	773,0	776,8
	Absorbed power	(2)	kW	14,5	14,5	14,5	19,3	19,3	19,3	24,4	31.9	32,4	37,2	37,2	41,6	41,6	45.6	53,2	53,2	53,2
	EER	(2)		14,5	14,8	15,0	14,7	15,1	15,4	15,4	14,3	14,8	14,6	14,7	15,0	15,1	15,2	14,5	14,5	14,6
	Water flow rate	(2)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(2)	kPa	73	84	99	119	134	164	133	168	141	169	168	131	147	161	191	196	215

NRB - GN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	277	319	356	395	452	508	560	625	671	724	764	831	894	936	978
	Absorbed power	(1)	kW	73	83	93	105	120	138	152	173	196	216	239	256	276	296	316	341	366
	EER	(1)		3.11	3.03	2,97	3,02	2,98	2.87	2,97	2.94	2,86	2.90	2,81	2.83	2.77	2,81	2.83	2.75	2,67
	SEPR			6,96	6,54	6,28	6,28	6,08	5,63	6,13	5,90	5,77	5,73	5,58	5,79	5,47	5,56	5,61	5,32	5,18
	Water flow rate	(1)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(1)	kPa	70	79	95	119	134	156	130	164	137	166	165	117	132	156	172	192	206
15°C	Cooling power	(2)	kW	228,1	233,5	238,4	286,7	296,3	309,2	387,1	436,1	458,5	509,7	515,0	587,1	591,7	655,6	704,8	708,7	712,0
	Absorbed power	(2)	kW	14,7	14,7	14,7	18,3	18,4	18,4	25.0	28,5	29,2	31.9	31.9	35,3	35,3	41.7	44,4	44,4	44,4
	EER	(2)		15,5	15,9	16.2	15,7	16,1	16,8	15,5	15,3	15,7	16,0	16,1	16,7	16,8	15,7	15,9	15,9	16,0
	Water flow rate	(2)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(2)	kPa	70	79	95	119	134	156	130	164	137	166	165	117	132	156	172	192	206

Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

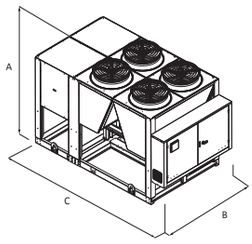
				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																				
Total input current (chiller)	GU	(2)	A	134	150	167	190	213	242	269	306	344	382	421	447	478	517	551	591	631
Total input current (Free-Cooling)			A	29	29	29	38	38	38	47	61	62	71	71	80	80	88	102	102	102
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)	GN	(2)	A	125	141	157	178	201	229	253	289	328	362	402	429	461	494	529	572	614
Total input current (Free-Cooling)			A	22	22	22	27	27	27	38	42	43	47	47	52	52	62	65	65	65
Maximum current (FLA)			A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)			A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																				
Compressors / Circuit			no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas			Type	R410A																
System side plate heat exchanger																				
Heat exchanger			no.	1																
Water connections (IN/OUT)			Ø	Refer to the technical documentation																
Standard axial fans																				
Fans	GU		no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Fans	GN		no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate, cooling			m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
Sound Data																				
sound power level	GU		dB(A)	90.2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
	GN		dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90.0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9

(2) Unit with standard configuration and operation, without integrated hydronic kit
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

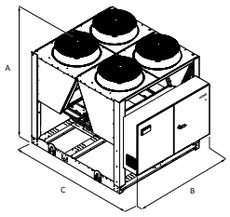
Data
(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling
(2) Evaporator water 15°C; Outside air 2°C

Dimensions (mm)

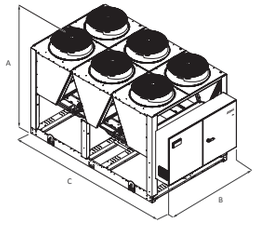
(1) Versions with accumulation tank
NRB0800-0900 A (*)



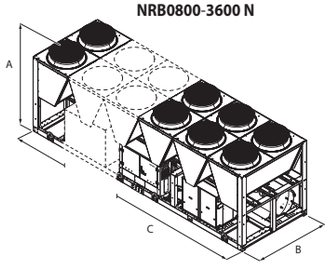
NRB0900A



NRB1000-1400 A
NRB0800-1000 E/U



NRB1600-3600 A
NRB1100-3600 E/U
NRB0800-3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	A	ALL	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	B	ALL	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C		A	mm	2780*	2780*	3970	3970	3970	3970	5160	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
		E	mm	3970	3970	3970	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		U	mm	3970	3970	3970	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		N	mm	5160	5160	5160	6350	6350	6350	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

* Depth of models without hydronic kit or with pumps. For models with an accumulation tank, the depth is 3970mm

Code: SNRB0800_3600GFUY.02 / 1801

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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AERMEC

NRV

free cooling

Air/Water chillers for outdoor installation with free cooling
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity from 108kW

HFC
Refrigerant
R410A

Variable Multi Flow
VMF



- **MICRO–CHANNEL COIL**
- **EASY AND QUICK TO INSTALL COMPACT MODULE**
- **RELIABILITY AND MODULARITY**

Features

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water with high efficiency scroll compressors, axial fans, micro-channel coils, system side plate heat exchanger. In the units with desuperheater, there is also the possibility of producing hot water for free.
The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.
With NRV, it is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum. Modularity that allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling functioning (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even complete compressor switch-off with a significant energy saving.

Versions
NRV_FA High Efficiency
NRV_FE High Efficiency Silenced
Operating range: Work up to 46°C of outdoor air temperature at full load.

- NRV is made up of a cooling circuit.
  The careful selection of the components used, the particular configuration and the option of connecting several independent modules and manage them as if they were a single unit allows for maximum yield at full load but even partial loads, thanks to the partialisation steps that increase as the number of connected modules increases, ensuring continuous adaptation to the actual system requirements.
- The electrical panel in every unit and the management logic that allows each module to be operated in synergy with the others ensure continuity even if one or more of the modules freeze up.
  Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.
- **The modules are easy to install and connect to each other** from a hydraulic standpoint, **thanks to the connections with grooved joints.**
- The chiller module uses aluminium micro-channel coils, ensuring very high levels of efficiency. These coils allow less refrigerant to be used compared to traditional copper/aluminium coils.
- **NRV is already equipped with a water filter, differential pressure switch and butterfly check valves**, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.
  In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
  Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set
- Thermoregulation takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced functioning profile. Perfect for night functioning, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the individual chillers when multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **FB1:** Micro-channel coil protection air filter. Built with frame and a composite set in aluminium micro-stitched net with extremely low head losses.
- **GPNYB_BACK**: kit with 1 anti-intrusion grid for the short side of the unit.
- **GPNYB_SIDE**: kit with 2 anti-intrusion grids for the long side of the unit.

Accessories mounted in the factory;
- **DRE**: Plate peak current reduction electronic device.
- **REF**: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KNYB**: Pair of caps with grooved joints assembled on the unit manifold.
- **KREC**: Accessory kit to remote the electric power supply input to the back (see documents)•

COMPATIBILITY with VMF SYSTEM
For further information on system, refer to specific documentation.

NRV	vers.	0550
AER485P1		•
PGD1		•
MULTICHILLER_EVO		•
FB1		•
GPNYB_BACK		•
GPNYB_SIDE	(1)	•

NRV	vers.	0550
Accessories mounted in the factory;		
DRE	*	•
REF	*	•
KNYB		
KREC		

* Contact the head office
(1) Kit made up of two grids

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field		Description
1,2,3		**NRV**
4,5,6.7		**Size**
		0550
8		**Scope of application**
	°	Mechanical Thermostatic Valve (produced water up to +4?)
	X	Electronic Thermostatic Valve
9		**Model**
	F	Free cooling
10		**Heat recovery**
	°	Without Heat Recovery
	D	With Desuperheater:
11		**Version**
	A	High Efficiency
	E	Silenced High Efficiency
12		**Condensing Coils**
	°	Aluminium micro-channel
	O	Aluminium micro-channel with cataphoresis treatment
	R	Copper - Copper
	S	Copper - Thinned
	V	Painted Aluminium Copper
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V/3/50Hz with magnet circuit breakers
15-16		**Integrated hydronic kit**
	00	Without hydronic kit

Free Cooling Water Coils
Copper Aluminium
Copper Aluminium Painted
Copper - Copper
Copper - Thinned
Painted Aluminium Copper

Technical data

NRV - FA				0550
		V/ph/Hz		400V/3/50Hz
12°C / 7°C	Cooling capacity	(1)	kW	105.4
	Input power	(1)	kW	36.6
	EER	(1)		2.88
	SEPR			
	Water flow rate	(1)	l/h	18104
	Head drops	(1)	kPa	31
15°C	Cooling capacity	(2)	kW	90.1
	Input power	(2)	kW	3.75
	EER	(2)		24.00
	Water flow rate	(2)	l/h	18104
	Head drops	(2)	kPa	73

NRV - FE				0550
		V/ph/Hz		400V/3/50Hz
12°C / 7°C	Cooling capacity	(1)	kW	99.9
	Input power	(1)	kW	38.2
	EER	(1)		2.61
	SEPR			
	Water flow rate	(1)	l/h	17164
	Head drops	(1)	kPa	27
15°C	Cooling capacity	(2)	kW	75.0
	Input power	(2)	kW	2.63
	EER	(2)		28.6
	Water flow rate	(2)	l/h	17164
	Head drops	(2)	kPa	66

GENERAL DATA				0550
Electrical data				
Total input current (Chiller mode)			A	65
Total input current (Freecooling mode)	FA		A	8
	FE		A	4
Scroll Compressors				
Compressors / Circuit			n°/n°	2/1
Refrigerant gas			type	R410A
System side heat exchanger - Plates				
Heat exchanger			no.	1
Axial Fans				
Fans			no.	2
Air flow rate in cooling mode		FA	m³/h	28600
		FE	m³/h	22000
Sound data				
Sound power level	A		dB(A)	85
Sound pressure level			dB(A)	53
Sound power level	E		dB(A)	82
Sound pressure level			dB(A)	50

Data

(1) Evaporator water 12°C/7°C, Outdoor air 35°C; (2) Evaporator water 15°C; Outdoor air 2°C

Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with what is requested by Eurovent certification.

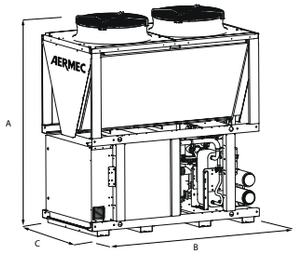
Sound pressure (cold functioning) Sound pressure measured in free field, 10 m away from the unit external surface (in compliance with UNI EN ISO 3744).

Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Dimensions and weights

NRV		Vers.	0550
A	(mm)	all	2480
B	(mm)	all	2200
C	(mm)	all	1190
Weight*	(kg)	all	1389

* Weight of the Standard unit without acessoires



Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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Code: SNRBFCUY.02 / 1801

AERMEC

NSM
1402/9603
free cooling

Air/Water chillers for outdoor installation with free cooling
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity from 306÷2028kW

HFC
Refrigerant
R134a



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **ENERGY SAVING**
- **MICRO–CHANNEL COIL**
- **QUICK AND EASY INSTALLATION**
- **NIGHT MODE**

Features

The NSM free cooling are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

Versions
NSM_F Free cooling
NSM_P Free cooling plus

Operating range: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stop.
- The full range uses aluminium micro-channel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper/aluminium coils.
- he possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. IT is supplied as standard from size 5202÷6402 e 8403÷9603, optional for all other sizes.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- DCPX series
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PRV3:** Allows you to control the chiller at a distance.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.

Accessories mounted in the factory;
- **KRS:** Exchangers electric resistance
- **KRSDES:** Electrical resistor for desuperheater
- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.
- **AK: ACOUSTIC KIT**. This accessory further reduce the noise.

Accessories compatibility

Mod.	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories mounted in the factory;																	
KRS	A	22	22	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	E	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	U	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	N	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	23+23
KRS_DES		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIFNSM		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP es. (GP4V)	A	4V	4V	4V	4V	5V	5V	5V	6V	6V	6V	6V	7V	7V	8V	8V	9V
	E	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
	U	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
	N	5V	5V	6V	6V	6V	7V	7V	8V	8V	8V	8V	9V	10V	11V	11V	6V+7V
AK	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•
Accessories mounted in the factory;												
KRS	A	24	24	24	24	24	24+23	24+23	24+23	24+23	24+23	24+23
	E	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
	U	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
	N	23+23	23+23	23+23	23+23	23+23	24+23					
KRS_DES	(1)	•	•	•	•	•	•	•	•	•	•	•
RIFNSM		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
GP es. (GP9V)	A	9V	9V	10V	11V	11V	8V+4V	8V+4V	9V+5V	9V+5V	10V+5V	11V+6V
	E	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
	U	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
	N	7V+7V	7V+8V	8V+8V	8V+8V	8V+8V	11V+6V					
AK	(2)	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(2) The accessory is only available for the "E/N" silenced versions
(x2) Indicates the amount to order

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field **Description**

1,2,3 **NSM**

4,5,6,7 **Sizes**

1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 **(dual circuit)**
3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 **(dual circuit)**
6503-6703-6903-7203-8403-9603 **(triple circuit)**

8 **Scope of application**

° Standard (temperature of water produced up to +4 °C) (3)
Y Low temperature (temperature of water produced from +4°C to -6°C) (4)
X Electronic thermostatic valve (temperature of water produced up to +4 °C)
Z Low temperature electronic thermostatic valve (temperature of water produced from +4°C to -6°C) (4)

9 **Model**

F Free cooling
P Free cooling Plus (5)

10 **Heat recovery**

° Without heat recovery
D With desuperheater

11 **Version**

A High efficiency
E Silenced high efficiency
U Very high efficiency
N Silenced very high efficiency

12 **Condensing coils**

° Aluminium microchannel
O Painted aluminium microchannel
R Copper - Copper
S Copper - Thinned
V Epoxy paint (only free cooling coil)

13 **Fans**

° Standard
J Inverter

14 **Power supply**

° 400V/3/50Hz with fuses
8 400V/3/50Hz with magnet circuit breakers
2 230V/3/50Hz with fuses (6)
4 230V/3/50Hz with magnet circuit breakers (6)
5 500V/3/50Hz with fuses (7)
9 500V/3/50Hz with magnet circuit breakers (7)

15-16 **Integrated hydronic kit**

00 Without hydronic kit
PA Pumping unit (pump A)
PB Pumping unit (pump B)
PC Pumping unit (pump C)
PD Pumping unit (pump D)
PE Pumping unit (pump E)
PF Pumping unit (pump F)
PG Pumping unit (pump G)
PH Pumping unit (pump H)
PI Pumping unit (pump I)
PJ Pumping unit (pump J)
FROM Pumping unit (pump A and reserve pump)
DB Pumping unit (pump B and reserve pump)
DC Pumping unit (pump C and reserve pump)
DD Pumping unit (pump D and reserve pump)
DE Pumping unit (pump E and reserve pump)
DF Pumping unit (pump F and reserve pump)
DG Pumping unit (pump G and reserve pump)
DH Pumping unit (pump H and reserve pump)
DI Pumping unit (pump I and reserve pump)
DJ Pumping unit (pump J and reserve pump)

Free cooling water coils

Copper Aluminium
Painted Aluminium Copper
Copper Copper
Copper - Thinned
Epoxy paint (only free cooling coil)

Operation of pumps in parallel

TF Double static, pressure pump (pump F)
TG Double static, pressure pump (pump G)
TH Double static, pressure pump (pump H)
TI Double static, pressure pump (pump I)
TJ Double static, pressure pump (pump J)

(3)sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve
(4) The Y/Z option is not compatible with the D option
(5) The free cooling plus models can have coils only in options "°" and "O"
(6) 230V/3/50Hz available only for sizes from 1402÷2202
(7) 500V/3/50Hz available only for sizes from 1402÷3202

Technical data

NSM Free cooling mod.			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	FA	kW	306	350	397	451	505	522	557	601	650	678	726	813	873	954
	FE	kW	320	366	418	473	509	550	569	619	646	675	716	797	852	930
	FU	kW	328	378	429	492	531	569	589	638	668	695	736	825	891	968
	FN	kW	326	377	424	486	525	560	580	626	655	683	723	812	889	961
Input power	FA	kW	103	118	137	158	169	180	194	203	220	235	253	270	296	318
	FE	kW	106	123	138	159	178	183	195	205	220	236	254	271	297	320
	FU	kW	105	121	136	156	173	180	191	202	216	228	242	263	288	311
	FN	kW	104	119	134	154	171	178	189	201	215	228	243	264	283	307
EER	FA	W/W	2.98	2.98	2.90	2.85	2.99	2.90	2.86	2.96	2.95	2.89	2.87	3.02	2.95	3.00
	FE	W/W	3.03	2.97	3.04	2.97	2.85	3.00	2.91	3.01	2.93	2.86	2.82	2.94	2.87	2.90
	FU	W/W	3.12	3.12	3.15	3.16	3.07	3.16	3.08	3.15	3.09	3.04	3.04	3.14	3.09	3.11
	FN	W/W	3.15	3.16	3.16	3.16	3.07	3.14	3.06	3.12	3.05	3.00	2.98	3.08	3.14	3.13
SEPR	FA		7,39	7,02	6,63	6,27	6,76	6,50	6,32	6,71	6,54	6,28	6,08	6,53	6,31	6,48
	FE		7,20	6,76	7,09	6,63	6,28	6,87	6,57	6,79	6,67	6,40	6,07	6,26	6,21	6,42
	FU		7,48	7,12	7,45	7,11	6,77	7,20	6,95	7,26	7,00	6,80	6,59	6,96	6,73	6,84
	FN		7,66	7,34	7,54	7,18	6,76	7,08	6,92	7,13	6,88	6,65	6,43	6,76	6,92	6,90
Water flow rate	FA	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
	FE	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
	FU	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
	FN	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Total pressure drops	FA	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
	FE	kPa	33	37	32	37	43	50	54	54	59	64	65	43	49	60
	FU	kPa	35	40	34	40	47	54	58	57	63	68	69	46	54	65
	FN	kPa	35	39	33	39	46	52	56	55	61	66	67	45	54	64
Cooling capacity	FA	kW	348	362	373	382	468	471	476	561	569	573	579	671	678	770
	FE	kW	309	317	390	399	403	476	479	552	557	560	565	643	648	727
	FU	kW	356	370	451	466	473	555	559	642	649	654	662	753	764	854
	FN	kW	365	381	449	466	473	541	546	616	622	628	635	714	791	867
Input power	FA	kW	15	15	15	15	19	19	19	22	22	22	22	26	26	30
	FE	kW	11	11	14	14	14	16	16	19	19	19	19	22	22	25
	FU	kW	15	15	19	19	19	22	22	26	26	26	26	30	30	34
	FN	kW	14	14	16	16	16	19	19	22	22	22	22	25	27	30
EER	FA	W/W	23.18	24.14	24.88	25.47	24.97	25.14	25.42	24.93	25.30	25.48	25.73	25.59	25.83	25.68
	FE	W/W	28.07	28.87	28.36	29.03	29.33	28.88	29.04	28.69	28.91	29.11	29.34	29.25	29.47	29.38
	FU	W/W	23.76	24.67	24.07	24.88	25.26	24.68	24.87	24.45	24.71	24.93	25.21	25.12	25.46	25.31
	FN	W/W	26.56	27.71	27.24	28.22	28.69	28.13	28.36	27.99	28.29	28.54	28.86	28.84	28.77	28.67
Total pressure drops	FA	kPa	66	86	86	76	79	84	95	98	107	117	114	87	100	108
	FE	kPa	57	67	57	68	78	80	86	83	90	98	103	77	88	98
	FU	kPa	60	72	60	74	85	86	92	88	96	104	109	83	96	106
	FN	kPa	52	62	52	64	74	77	82	80	87	94	99	75	83	94

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																	
Total input current (Chiller)	(1)	FA	A	182	206	231	268	291	311	335	351	378	400	427	451	487	530
	(1)	FE	A	177	206	223	261	294	305	326	342	365	389	415	437	474	517
	(1)	FU	A	186	212	232	266	297	313	332	353	374	392	413	443	477	523
	(1)	FN	A	175	200	218	253	283	297	317	335	357	376	399	427	452	497
Total input current (Free cooling)	(1)	FA	A	30	30	30	30	38	38	38	46	46	46	46	53	53	61
	(1)	FE	A	16	16	20	20	20	24	24	28	28	28	28	32	32	36
	(1)	FU	A	30	30	38	38	38	46	46	53	53	53	53	61	61	68
	(1)	FN	A	20	20	24	24	24	28	28	32	32	32	32	36	40	44
Maximum current FLA	(1)	FA	A	244	272	299	332	374	396	417	450	475	475	475	531	579	636
	(1)	FE	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	FU	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	FN	A	252	280	316	349	383	413	434	467	492	492	492	548	605	667
Peak current LRA	(1)	FA	A	265	307	350	388	420	467	484	519	529	529	529	662	702	831
	(1)	FE	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	FU	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	FN	A	274	316	367	405	428	484	501	536	546	546	546	679	727	863
Compressors			type	twin-screw													
Compressors			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type	R134a													
Heat exchanger			type	shell and tube													
Quantity	(1)	FA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	FE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	FU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	FN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans			type	axial													
Quantity		FA	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		FE	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		FU	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		FN	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		FA	m^3/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
		FE	m^3/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
		FU	m^3/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
		FN	m^3/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
Sound data																	
Sound power		FA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		FE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		FU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		FN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply			V/ph/Hz	400V/3/50Hz													

(1) The electric data is of the versions without integrated hydronic kit.

Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

NSM Free cooling mod.			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	FA	kW	997	1082	1128	1167	1223	1305	1347	1459	1502	1659	1705	1838	2028
	FE	kW	995	1052	1137	1159	1217	1279	1342	1434	1500	1599	1684		
	FU	kW	1031	1095	1181	1209	1266	1326	1387	1491	1554	1667	1753		
	FN	kW	1005	1099	1162	1218	1274	1318	1362	1478					
Input power	FA	kW	346	366	392	422	439	453	472	492	520	557	583	659	704
	FE	kW	340	370	389	418	437	449	461	491	511	569	588		
	FU	kW	332	358	379	405	426	440	454	478	499	550	570		
	FN	kW	333	350	369	393	416	434	451	472					
EER	FA	W/W	2.88	2.96	2.88	2.76	2.79	2.88	2.85	2.97	2.89	2.98	2.92	2.79	2.88
	FE	W/W	2.93	2.84	2.92	2.77	2.79	2.85	2.91	2.92	2.93	2.81	2.86		
	FU	W/W	3.11	3.06	3.12	2.98	2.97	3.01	3.06	3.12	3.12	3.03	3.07		
	FN	W/W	3.02	3.14	3.15	3.10	3.06	3.04	3.02	3.13					
SEPR	FA		6,16	6,38	6,15	5,85	6,01	6,21	6,10	6,58	6,36	6,67	6,49	6,16	6,41
	FE		6,50	6,19	6,41	5,96	6,00	6,16	6,47	6,70	6,81	6,19	6,44		
	FU		6,90	6,51	6,82	6,49	6,51	6,66	6,80	7,14	7,19	6,84	6,97		
	FN		6,63	6,78	6,89	7,00	6,93	6,71	6,69	7,26					
Water flow rate	FA	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
	FE	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650		
	FU	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470		
	FN	l/h	172840	188960	199810	209510	219210	226710	234210	254300					
Total pressure drops	FA	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
	FE	kPa	69	80	74	76	68	72	82	60	69	80	74		
	FU	kPa	74	86	79	83	73	78	88	65	74	86	80		
	FN	kPa	70	71	85	89	75	78	85	64					
Cooling capacity	FA	kW	775	867	872	876	966	1058	1063	1158	1163	1347	1352	1449	1637
	FE	kW	804	809	889	891	967	1044	1120	1130	1207	1216	1295		
	FU	kW	942	952	1043	1048	1135	1222	1308	1326	1414	1431	1523		
	FN	kW	874	1018	1092	1165	1237	1246	1255	1339					
Input power	FA	kW	30	34	34	34	37	41	41	45	45	52	52	56	64
	FE	kW	27	27	30	30	33	36	38	38	41	41	44		
	FU	kW	37	37	41	41	45	49	52	52	56	56	60		
	FN	kW	30	36	38	41	44	44	44	47					
EER	FA	W/W	25.83	25.71	25.85	25.96	25.77	25.66	25.77	25.75	25.85	25.66	25.75	25.78	25.68
	FE	W/W	29.24	29.44	29.38	29.44	29.31	29.20	29.09	29.35	29.26	29.48	29.44		
	FU	W/W	25.12	25.39	25.30	25.40	25.22	25.07	24.92	25.27	25.14	25.45	25.39		
	FN	W/W	28.91	28.48	28.37	28.24	28.11	28.33	28.52	28.65					
Total pressure drops	FA	kPa	117	130	141	131	134	146	155	108	117	130	141	134	155
	FE	kPa	105	119	113	117	107	111	120	98	105	119	113		
	FU	kPa	113	129	122	128	116	119	128	106	113	130	123		
	FN	kPa	102	101	114	118	104	109	118	94					

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																
Total input current	(1)	FA	A	581	614	655	704	733	761	796	821	872	945	986	1100	1198
	(1)	FE	A	555	601	632	678	708	732	755	804	832	924	945		
	(1)	FU	A	564	605	639	682	718	746	774	812	846	926	954		
	(1)	FN	A	544	570	600	639	677	708	740	771					
Total input current (Free cooling)	(1)	FA	A	61	68	68	68	76	84	84	91	91	106	106	114	129
	(1)	FE	A	40	40	44	44	48	52	56	56	60	60	64		
	(1)	FU	A	76	76	84	84	91	99	106	106	114	114	122		
	(1)	FN	A	44	52	56	60	64	64	64	68					
Maximum current FLA	(1)	FA	A	684	731	770	813	865	913	947	981	1029	1124	1163	1300	1419
	(1)	FE	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FU	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FN	A	715	771	819	870	922	956	990	1023					
Peak current LRA	(1)	FA	A	858	931	953	1108	1164	1290	1287	1069	1096	1200	1223	1480	1603
	(1)	FE	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FU	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FN	A	890	971	1002	1165	1221	1333	1330	1112					
Compressors			type	twin-screw												
Compressors			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Refrigerant gas			type	R134a												
Heat exchanger			type	shell and tube												
Quantity	(1)	FA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	FE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type	axial												
Quantity		FA	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
		FE	no.	20	20	22	22	24	26	28	28	30	30	32		
		FU	no.	20	20	22	22	24	26	28	28	30	30	32		
		FN	no.	22	26	28	30	32	32	32	34					
Air flow rate		FA	m^3/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
		FE	m^3/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400		
		FU	m^3/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000		
		FN	m^3/h	246400	291200	313600	336000	358400	358400	358400	380800					
Sound data																
Sound power		FA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		FE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		FU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		FN	dB(A)	95	96	96	97	97	97	97	97					

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

NSM Free cooling PLUS mod.			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	PA	kW	306	349	395	447	502	519	553	597	645	674	722	808	865	947
	PE	kW	317	363	414	470	504	545	564	614	641	670	711	791	843	921
	PU	kW	327	377	428	489	528	565	586	635	664	692	732	820	885	962
	PN	kW	325	375	423	484	522	557	577	623	652	680	720	807	883	955
Input power	PA	kW	104	119	138	160	171	183	197	205	223	238	257	273	299	322
	PE	kW	107	125	139	161	181	185	198	208	223	239	258	275	301	324
	PU	kW	106	123	138	157	175	182	193	204	218	231	246	266	291	315
	PN	kW	104	120	136	155	173	180	192	203	217	231	246	267	286	310
EER	PA	W/W	2.95	2.94	2.86	2.79	2.94	2.84	2.81	2.91	2.89	2.83	2.81	2.96	2.89	2.94
	PE	W/W	2.97	2.91	2.99	2.91	2.79	2.94	2.85	2.96	2.87	2.80	2.76	2.88	2.80	2.84
	PU	W/W	3.08	3.07	3.11	3.10	3.02	3.11	3.03	3.10	3.04	2.99	2.98	3.08	3.04	3.06
	PN	W/W	3.11	3.12	3.12	3.11	3.02	3.09	3.01	3.07	3.00	2.94	2.92	3.02	3.09	3.08
SEPR	PA		7,37	7,09	6,64	6,24	6,77	6,48	6,26	6,68	6,47	6,21	5,97	6,49	6,24	6,41
	PE		7,24	6,71	7,14	6,59	6,19	6,81	6,49	6,82	6,59	6,29	5,97	6,44	6,20	6,32
	PU		7,55	7,15	7,54	7,14	6,75	7,21	6,95	7,27	7,00	6,76	6,53	6,95	6,69	6,79
	PN		7,70	7,37	7,61	7,21	6,81	7,16	6,89	7,14	6,86	6,61	6,37	6,73	6,88	6,86
Water flow rate	PA	l/h	52600	60090	67940	76940	86360	89280	95050	102710	111010	115990	124160	138940	148770	162860
	PE	l/h	54470	62460	71290	80760	86710	93810	97020	105580	110230	115210	122270	135990	145080	158470
	PU	l/h	56230	64790	73540	84070	90740	97250	100720	109150	114220	118970	125990	141090	152170	165430
	PN	l/h	55920	64530	72740	83170	89790	95770	99190	107170	112100	116890	123890	138810	151850	164280
Total pressure drops	PA	kPa	45	59	53	35	44	47	54	63	66	73	64	43	49	60
	PE	kPa	33	37	32	37	42	50	53	53	58	63	64	42	48	59
	PU	kPa	35	39	34	40	46	53	57	57	62	67	68	46	53	64
	PN	kPa	35	39	33	39	45	52	55	55	60	65	66	44	53	64
Cooling capacity	PA	kW	372	388	400	409	502	505	511	601	610	614	620	719	725	825
	PE	kW	329	339	416	426	430	508	511	589	594	598	602	686	691	775
	PU	kW	381	397	483	500	507	595	600	688	695	702	709	808	818	915
	PN	kW	388	406	478	497	505	578	582	656	664	670	678	762	844	925
Input power	PA	kW	15	15	15	15	19	19	19	23	23	23	23	27	27	30
	PE	kW	11	11	14	14	14	17	17	20	20	20	20	22	22	25
	PU	kW	15	15	19	19	19	23	23	27	27	27	27	30	30	34
	PN	kW	14	14	17	17	17	20	20	22	22	22	22	25	28	31
EER	PA	W/W	24.41	25.48	26.27	26.86	26.36	26.53	26.81	26.31	26.69	26.88	27.12	26.98	27.20	27.07
	PE	W/W	29.48	30.36	29.81	30.53	30.82	30.37	30.54	30.17	30.41	30.62	30.84	30.75	30.95	30.87
	PU	W/W	25.04	26.04	25.39	26.26	26.65	26.05	26.25	25.80	26.09	26.32	26.61	26.51	26.85	26.71
	PN	W/W	27.79	29.12	28.57	29.68	30.18	29.58	29.83	29.42	29.75	30.03	30.37	30.35	30.26	30.16
Total pressure drops	PA	kPa	66	86	85	75	78	83	94	97	106	115	112	86	98	106
	PE	kPa	56	66	56	67	77	79	84	82	89	97	102	76	86	96
	PU	kPa	59	71	60	73	84	85	91	87	95	103	108	82	95	104
	PN	kPa	52	61	52	63	73	76	81	79	86	94	98	74	82	93

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																	
Total input current (Chiller)	(1)	PA	A	184	208	233	271	294	315	339	355	382	405	433	456	492	536
	(1)	PE	A	179	208	225	263	298	308	329	345	369	393	421	443	480	523
	(1)	PU	A	187	213	234	269	300	316	335	356	377	396	418	447	482	528
	(1)	PN	A	176	201	220	255	286	300	320	338	360	381	404	431	457	501
Total input current (Free cooling)	(1)	PA	A	31	31	31	31	38	38	38	46	46	46	46	54	54	61
	(1)	PE	A	16	16	20	20	20	24	24	28	28	28	28	32	32	36
	(1)	PU	A	31	31	38	38	38	46	46	54	54	54	54	61	61	69
	(1)	PN	A	20	20	24	24	24	28	28	32	32	32	32	36	40	44
Maximum current FLA	(1)	PA	A	244	272	299	332	374	396	417	450	475	475	475	531	579	636
	(1)	PE	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	PU	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	PN	A	252	280	316	349	383	413	434	467	492	492	492	548	605	667
Peak current LRA	(1)	PA	A	265	307	350	388	420	467	484	519	529	529	529	662	702	831
	(1)	PE	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	PU	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	PN	A	274	316	367	405	428	484	501	536	546	546	546	679	727	863
Compressors			type	twin-screw													
Compressors			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type	R134a													
Heat exchanger			type	shell and tube													
Quantity	(1)	PA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans			type	axial													
Quantity		PA	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		PE	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		PU	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		PN	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		PA	m^3/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
		PE	m^3/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
		PU	m^3/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
		PN	m^3/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
Sound data																	
Sound power		PA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		PE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		PU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		PN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

NSM Free cooling PLUS mod.			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	FA	kW	989	1074	1119	1156	1213	1295	1336	1448	1490	1647	1692	1823	2013
	FE	kW	988	1042	1127	1148	1207	1269	1332	1422	1488	1583	1668		
	FU	kW	1025	1088	1174	1201	1258	1319	1379	1482	1545	1656	1742		
	FN	kW	999	1093	1156	1212	1268	1311	1354	1470					
Input power	FA	kW	351	370	397	428	444	458	478	498	527	564	591	667	712
	FE	kW	344	375	395	424	442	454	467	498	517	577	597		
	FU	kW	335	362	383	410	431	444	458	483	504	556	577		
	FN	kW	337	353	373	396	420	438	455	477					
EER	FA	W/W	2.82	2.90	2.82	2.70	2.73	2.83	2.79	2.91	2.83	2.92	2.86	2.73	2.83
	FE	W/W	2.87	2.78	2.86	2.71	2.73	2.79	2.85	2.86	2.88	2.74	2.80		
	FU	W/W	3.06	3.00	3.06	2.93	2.92	2.97	3.01	3.07	3.07	2.98	3.02		
	FN	W/W	2.97	3.09	3.10	3.06	3.02	3.00	2.97	3.08					
SEPR	PA		6,07	6,28	6,03	5,73	5,92	6,11	5,98	6,54	6,30	6,61	6,42	6,10	6,34
	PE		6,41	6,06	6,29	5,84	5,92	6,08	6,37	6,64	6,76	6,09	6,34		
	PU		6,86	6,60	6,76	6,42	6,48	6,63	6,77	7,12	7,16	6,80	6,93		
	PN		6,57	6,90	6,84	6,96	6,92	6,78	6,65	7,23					
Water flow rate	FA	l/h	170060	184760	192490	198900	208590	222770	229830	249020	256220	283280	291010	313530	346260
	FE	l/h	169860	179210	193870	197450	207550	218320	229100	244540	255930	272310	286960		
	FU	l/h	176350	187150	201920	206550	216360	226790	237230	254900	265810	284790	299560		
	FN	l/h	171790	187940	198770	208410	218050	225490	232920	252840					
Total pressure drops	FA	kPa	65	80	87	74	81	94	100	60	65	80	87	81	100
	FE	kPa	68	78	72	75	67	71	81	59	68	78	72		
	FU	kPa	73	85	78	82	72	77	87	64	73	85	79		
	FN	kPa	70	71	84	88	74	77	85	64					
Cooling capacity	FA	kW	829	929	933	936	1034	1133	1137	1240	1244	1442	1447	1551	1752
	FE	kW	857	862	947	949	1031	1113	1194	1204	1287	1295	1380		
	FU	kW	1010	1020	1119	1123	1216	1310	1402	1422	1516	1533	1632		
	FN	kW	933	1086	1165	1242	1319	1330	1339	1429					
Input power	FA	kW	30	34	34	34	38	42	42	46	46	53	53	57	65
	FE	kW	28	28	31	31	33	36	39	39	42	42	45		
	FU	kW	38	38	42	42	46	50	53	53	57	57	61		
	FN	kW	31	36	39	42	45	45	45	47					
EER	FA	W/W	27.21	27.09	27.22	27.32	27.15	27.05	27.15	27.13	27.22	27.04	27.13	27.15	27.07
	FE	W/W	30.74	30.92	30.87	30.92	30.81	30.70	30.59	30.84	30.76	30.95	30.92		
	FU	W/W	26.51	26.78	26.70	26.80	26.62	26.46	26.30	26.66	26.54	26.84	26.78		
	FN	W/W	30.41	29.96	29.84	29.69	29.55	29.79	30.01	30.14					
Total pressure drops	FA	kPa	116	128	139	129	132	144	153	106	116	128	139	132	153
	FE	kPa	103	117	111	115	105	109	118	96	103	117	111		
	FU	kPa	111	128	121	126	114	118	127	104	111	128	121		
	FN	kPa	101	100	113	117	103	108	117	93					

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

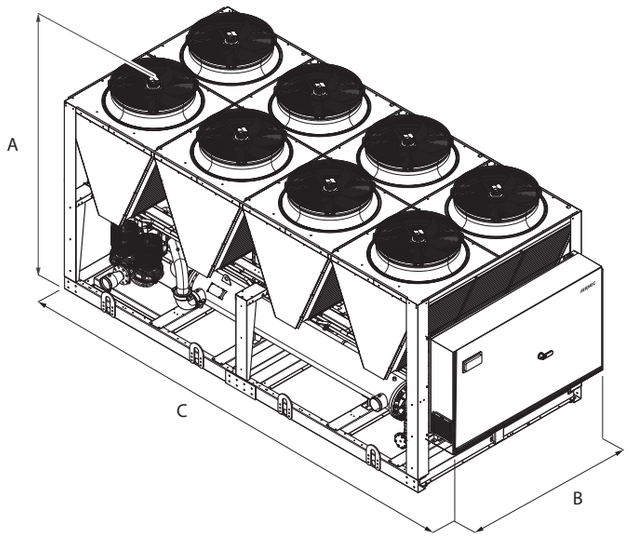
Electrical data																
Total input current	(1)	FA	A	588	621	662	713	741	769	805	830	882	956	998	1112	1211
	(1)	FE	A	561	609	640	687	717	740	763	814	842	937	957		
	(1)	FU	A	569	611	645	688	725	752	780	819	854	936	963		
	(1)	FN	A	550	575	606	644	682	714	746	778					
Total input current (Free cooling)	(1)	FA	A	61	69	69	69	77	84	84	92	92	107	107	115	131
	(1)	FE	A	40	40	44	44	48	52	56	56	60	60	64		
	(1)	FU	A	77	77	84	84	92	100	107	107	115	115	123		
	(1)	FN	A	44	52	56	60	64	64	64	68					
Maximum current FLA	(1)	FA	A	684	731	770	813	865	913	947	981	1029	1124	1163	1300	1419
	(1)	FE	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FU	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FN	A	715	771	819	870	922	956	990	1023					
Peak current LRA	(1)	FA	A	858	931	953	1108	1164	1290	1287	1069	1096	1200	1223	1480	1603
	(1)	FE	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FU	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FN	A	890	971	1002	1165	1221	1333	1330	1112					
Compressors			type	twin-screw												
Compressors			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Refrigerant gas			type	R134a												
Heat exchanger			type	shell and tube												
Quantity	(1)	FA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	FE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type	axial												
Quantity		FA	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
		FE	no.	20	20	22	22	24	26	28	28	30	30	32		
		FU	no.	20	20	22	22	24	26	28	28	30	30	32		
		FN	no.	22	26	28	30	32	32	32	34					
Air flow rate		FA	m^3/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800
		FE	m^3/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400		
		FU	m^3/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400		
		FN	m^3/h	235400	278200	299600	321000	342400	342400	342400	363800					
Sound data																
Sound power		FA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		FE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		FU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		FN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz	400V/3/50Hz												

(1) The electric data is of the versions without integrated hydronic kit.

Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Dimensions and Weights



Mod. NSM Free cooling and Free cooling plus

			Vers	1402	1602	1802	2002	2202	2352	2502	2652
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	5160	5160	5160	5160	6350	6350	6350	7140
			E	5160	5160	6350	6350	6350	7140	7140	8330
			U	5160	5160	6350	6350	6350	7140	7140	8330
			N	6350	6350	7140	7140	7140	8330	8330	9520

			Vers	2802	3002	3202	3402	3602	3902	4202	4502
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	7140	7140	7140	8330	8330	9520	9520	10710
			E	8330	8330	8330	9520	9520	10710	11900	11900
			U	8330	8330	8330	9520	9520	10710	11900	11900
			N	9520	9520	9520	10710	11900	13090	13090	15470

			Vers	4802	5202	5602	6002	6402	6503	6703	6903
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	10710	10710	11900	13090	13090	14280	14280	16660
			E	13090	13090	14280	15470	16660	16660	17850	17850
			U	13090	13090	14280	15470	16660	16660	17850	17850
			N	16660	17850	19040	19040	19040	20230		

			Vers	7203	8403	9603
Height	(mm)	A	All	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200
Length	(mm)	C	A	16660	17850	20230
			E	19040		
			U	19040		
			N			

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

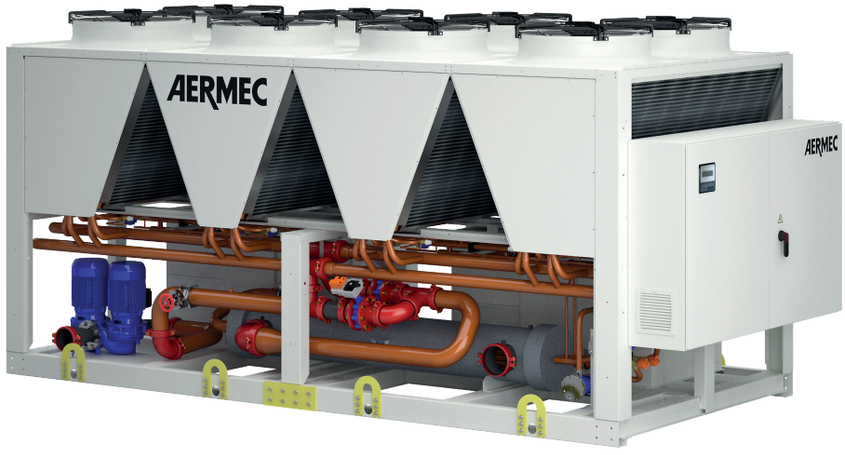
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www.aermec.com

Code: SNSMFCUY.01 / 1801

NSM 1402/9603 glycol free

Air/Water chillers for outdoor installation with free cooling glycol free
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity from 306÷2028kW

HFC Refrigerant R134a



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **ENERGY SAVING**
- **MICRO–CHANNEL COIL**
- **QUICK AND EASY INSTALLATION**
- **NIGHT MODE**

Features

The NSM free cooling glycol free designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are provided with a "free cooling" coil and a intermediate plate heat exchanger, in order to accomplish a double set of independent, a coil circuit / a plant circuit.
These chillers are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system.
In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

Versions
NSM_B Free cooling glycol free
NSM_G Free cooling plus glycol free

Operating range: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stop.
- The full range uses aluminium micro-channel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper/aluminium coils.
- he possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. IT is supplied as standard from size 5202÷6402 e 8403÷9603, optional for all other sizes.
- Intermediate plate heat exchanger, it permits to obtain a double circuit set:
  Coil circuit with glycol, in order to protect the component from freezing.
  Primary plant circuit, without glycol.
- Standard differential pressure switch
- DCPX series
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
  Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PRV3:** Allows you to control the chiller at a distance.
- **MULTICHILLER_EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.

Accessories mounted in the factory;

- **KRS: (compulsory accessory)** Exchangers electric resistance
- **KDI:** double thickness evaporator insulation. Provides stand-still protection down to -20°C. **Must be ordered in conjunction with options KRS**
- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.
- **AK: ACOUSTIC KIT**. This accessory further reduce the noise.

Accessories compatibility

Mod.		vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1			•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories mounted in the factory;																		
KRS	(2)	A	22	22	23	23	23	23	23	23	23	23	23	24	24	24	24	24
		E	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
		U	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
		N	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	23+23
KDI	(1)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIFNSM			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP		A	4V	4V	4V	4V	5V	5V	5V	6V	6V	6V	6V	7V	7V	8V	8V	9V
es. (GP4V)		E	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
		U	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
		N	5V	5V	6V	6V	6V	7V	7V	8V	8V	8V	8V	9V	10V	11V	11V	6V+7V
AK	(3)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

			4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1			•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET			•	•	•	•	•	•	•	•	•	•	•
PRV3			•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO			•	•	•	•	•	•	•	•	•	•	•
AVX	(1)		•	•	•	•	•	•	•	•	•	•	•
Accessories mounted in the factory;													
KRS	(2)	A	24	24	24	24	24	24+23	24+23	24+23	24+23	24+23	24+23
		E	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
		U	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
		N	23+23	23+23	23+23	23+23	23+23	24+23					
KDI	(1)		•	•	•	•	•	•	•	•	•	•	•
RIFNSM			4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
GP		A	9V	9V	10V	11V	11V	8V+4V	8V+4V	9V+5V	9V+5V	10V+5V	11V+6V
es. (GP9V)		E	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
		U	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
		N	7V+7V	7V+8V	8V+8V	8V+8V	8V+8V	11V+6V					
AK	(3)		•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(2) Compulsory accessory
(3) The accessory is only available for the "E/N" silenced versions
(x2) Indicates the amount to order

Note:
(1) Contattare la sede per temperature inferiori

Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field		Description
1,2,3		**NSM**
4,5,6,7		**Sizes**
		1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 **(dual circuit)**
		3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 **(dual circuit)**
		6503-6703-6903-7203-8403-9603 **(triple circuit)**
8		**Scope of application**
	°	Standard (temperature of water produced up to +4 °C) (3)
	Y	Low temperature (temperature of water produced from +4°C to -6°C) (4)
	X	Electronic thermostatic valve (temperature of water produced up to +4 °C)
	Z	Low temperature electronic thermostatic valve (temperature of water produced from +4°C to -6°C) (4)
9		**Model**
	B	Free cooling glycol free
	G	Free cooling Plus glycol free (5)
10		**Heat recovery**
	°	Without heat recovery
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	U	Very high efficiency
	N	Silenced very high efficiency
12		**Condensing coils**
	°	Aluminium microchannel
	O	Painted aluminium microchannel
	R	Copper - Copper
	S	Copper - Thinned
	V	Epoxy paint (only free cooling coil)
13		**Fans**
	°	Standard
	M	Increased
	J	Inverter
14		**Power supply**
	°	400V/3/50Hz with fuses
	8	400V/3/50Hz with magnet circuit breakers
	2	230V/3/50Hz with fuses (6)
	4	230V/3/50Hz with magnet circuit breakers (6)
	5	500V/3/50Hz with fuses (7)
	9	500V/3/50Hz with magnet circuit breakers (7)
15-16		**Integrated hydronic kit**
	00	Without hydronic kit

Free cooling water coils
Copper Aluminium
Painted Aluminium Copper
Copper Copper
Copper - Thinned
Epoxy paint (only free cooling coil)

(3)sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve
(4) The Y/Z option is not compatible with the D option
(5) The free cooling plus models can have coils only in options "°" and "O"
(6) 230V/3/50Hz available only for sizes from 1402÷2202
(7) 500V/3/50Hz available only for sizes from 1402÷3202

Technical data

Mod NSM Free cooling glycol free			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	BA	kW	306	350	397	451	505	522	557	601	650	678	726	813	873	954
	BE	kW	320	366	418	473	509	550	569	619	646	675	716	797	852	930
	BU	kW	328	378	429	492	531	569	589	638	668	695	736	825	891	968
	BN	kW	326	377	424	486	525	560	580	626	655	683	723	812	889	961
Input power	BA	kW	103	118	137	158	169	180	194	203	220	235	253	270	296	318
	BE	kW	106	123	138	159	178	183	195	205	220	236	254	271	297	320
	BU	kW	105	121	136	156	173	180	191	202	216	228	242	263	288	311
	BN	kW	104	119	134	154	171	178	189	201	215	228	243	264	283	307
EER	BA	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
	BE	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
	BU	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
	BN	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
SEPR	BA		6,46	6,19	5,88	5,68	6,05	5,82	5,67	6,02	5,87	5,80	5,66	6,03	5,83	5,90
	BE		6,54	6,14	6,35	6,05	5,76	6,28	6,02	6,21	6,03	5,92	5,69	6,04	5,84	5,89
	BU		6,56	6,30	6,44	6,38	6,08	6,44	6,23	6,39	6,34	6,17	6,07	6,31	6,11	6,12
	BN		6,85	6,61	6,72	6,47	6,16	6,43	6,22	6,49	6,27	6,08	5,96	6,21	6,27	6,26
Water flow rate	BA	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
	BE	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
	BU	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
	BN	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Total pressure drops	BA	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
	BE	kPa	64	76	84	78	90	88	94	100	109	91	94	80	92	110
	BU	kPa	67	81	88	83	96	93	99	106	88	95	87	85	99	117
	BN	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106
Cooling capacity	BA	kW	263	271	278	289	355	358	362	436	440	461	465	541	546	602
	BE	kW	244	251	302	316	321	385	388	436	440	459	463	527	532	585
	BU	kW	271	279	332	360	363	432	435	488	511	516	531	591	597	652
	BN	kW	288	304	358	368	374	428	432	494	499	503	518	578	630	690
Input power	BA	kW	18	18	18	18	25	25	25	32	32	32	32	37	37	41
	BE	kW	15	15	20	20	20	26	26	30	30	30	30	33	33	36
	BU	kW	19	19	25	27	27	32	32	37	37	37	37	41	41	45
	BN	kW	18	20	26	26	27	30	30	33	33	33	33	39	42	45
EER	BA	W/W	14,37	14,80	15,18	15,73	14,40	14,50	14,69	13,59	13,72	14,26	14,39	14,58	14,71	14,70
	BE	W/W	16,02	16,49	15,46	16,06	16,35	14,74	14,88	14,70	14,85	15,31	15,46	16,02	16,16	16,39
	BU	W/W	14,11	14,53	13,53	13,39	13,52	13,46	13,55	13,31	13,83	13,96	14,32	14,46	14,58	14,59
	BN	W/W	15,97	15,45	13,81	14,22	14,07	14,42	14,56	15,05	15,20	15,34	15,73	14,70	14,95	15,34
Total pressure drops	BA	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
	BE	kPa	64	76	84	78	90	88	94	100	109	91	94	80	92	110
	BU	kPa	67	81	88	83	96	93	99	106	88	95	87	85	99	117
	BN	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling glycol free (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C; Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data																	
Total input current (Chiller)	(1)	BA	A	182	206	231	268	291	311	335	351	378	400	427	451	487	530
	(1)	BE	A	177	206	223	261	294	305	326	342	365	389	415	437	474	517
	(1)	BU	A	186	212	232	266	297	313	332	353	374	392	413	443	477	523
	(1)	BN	A	175	200	218	253	283	297	317	335	357	376	399	427	452	497
Total input current (Free cooling glycol free)	(1)	BA	A	36	36	36	37	48	48	48	62	62	62	62	71	71	79
	(1)	BE	A	23	23	30	30	30	40	40	45	45	46	46	50	50	54
	(1)	BU	A	38	38	48	52	52	62	62	71	71	71	71	79	79	87
	(1)	BN	A	27	30	40	40	41	45	45	50	50	50	50	60	64	68
Maximum current FLA	(1)	BA	A	250	278	305	339	384	406	427	466	491	492	492	550	598	654
	(1)	BE	A	251	279	317	351	384	420	442	476	501	501	501	558	606	663
	(1)	BU	A	251	279	317	355	388	420	442	476	501	501	502	558	606	663
	(1)	BN	A	260	290	332	365	400	430	451	485	510	510	510	572	629	691
Peak current LRA	(1)	BA	A	271	313	356	394	430	477	494	536	546	546	546	680	720	850
	(1)	BE	A	273	314	369	407	430	492	509	545	555	556	556	689	729	858
	(1)	BU	A	273	314	369	410	434	492	509	545	556	556	556	689	729	858
	(1)	BN	A	281	326	383	421	445	501	518	555	565	565	565	703	751	887
Compressors			type	twin-screw													
Compressors			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type	R134a													
Heat exchanger			type	shell and tube													
Quantity	(1)	BA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans			type	axial													
Quantity		BA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		BE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		BU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		BN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		BA	m^3/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
		BE	m^3/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
		BU	m^3/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
		BN	m^3/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
Sound data																	
Sound power		BA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		BE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		BU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		BN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply			V/ph/Hz	400V/3/50Hz													

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

Mod NSM Free cooling glycol free			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	BA	kW	997	1082	1128	1167	1223	1305	1347	1459	1502	1659	1705	1838	2028
	BE	kW	995	1052	1137	1159	1217	1279	1342	1434	1500	1599	1684		
	BU	kW	1031	1095	1181	1209	1266	1326	1387	1491	1554	1667	1753		
	BN	kW	1005	1099	1162	1218	1274	1318	1362	1478					
Input power	BA	kW	346	366	392	422	439	453	472	492	520	557	583	659	704
	BE	kW	340	370	389	418	437	449	461	491	511	569	588		
	BU	kW	332	358	379	405	426	440	454	478	499	550	570		
	BN	kW	333	350	369	393	416	434	451	472					
EER	BA	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
	BE	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86		
	BU	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07		
	BN	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13					
SEPR	BA		5,62	5,81	5,60	5,59	5,53	5,66	5,56	5,93	5,73	5,99	5,83	5,63	5,79
	BE		5,93	5,71	5,87	5,68	5,61	5,66	5,93	6,09	6,17	5,70	5,86		
	BU		6,22	6,02	6,10	5,81	5,93	5,98	6,12	6,32	6,40	6,13	6,19		
	BN		6,02	6,29	6,27	6,37	6,39	6,29	6,20	6,51					
Water flow rate	BA	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
	BE	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650		
	BU	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470		
	BN	l/h	172840	188960	199810	209510	219210	226710	234210	254300					
Total pressure drops	BA	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
	BE	kPa	125	128	130	135	84	115	112	110	121	121	130		
	BU	kPa	119	137	138	145	104	124	113	117	119	137	138		
	BN	kPa	116	103	104	109	72	78	81	105					
Cooling capacity	BA	kW	606	682	684	687	746	800	803	894	899	1043	1047	1133	1260
	BE	kW	647	665	718	720	784	836	891	904	966	995	1048		
	BU	kW	739	746	804	806	890	942	995	1015	1102	1130	1188		
	BN	kW	697	817	864	930	987	1002	1007	1064					
Input power	BA	kW	41	45	45	45	60	64	64	59	59	70	70	77	85
	BE	kW	42	42	45	45	52	56	59	55	62	64	67		
	BU	kW	52	52	56	56	66	69	73	72	79	81	85		
	BN	kW	45	56	59	62	66	66	66	72					
EER	BA	W/W	14,82	15,19	15,23	15,31	12,45	12,56	12,60	15,08	15,17	15,00	15,04	14,72	14,87
	BE	W/W	15,27	15,66	15,88	15,91	15,02	15,00	15,01	16,33	15,57	15,47	15,62		
	BU	W/W	14,09	14,22	14,29	14,33	13,55	13,56	13,57	14,19	13,90	13,90	13,96		
	BN	W/W	15,49	14,64	14,56	14,89	15,05	15,27	15,34	14,87					
Total pressure drops	BA	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
	BE	kPa	125	128	130	135	84	115	112	110	121	121	130		
	BU	kPa	119	137	138	145	104	124	113	117	119	137	138		
	BN	kPa	116	103	104	109	72	78	81	105					

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling glycol free (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C; Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data																
Total input current (Chiller)	(1)	BA	A	581	614	655	704	733	761	796	821	872	945	986	1100	1198
	(1)	BE	A	555	601	632	678	708	732	755	804	832	924	945		
	(1)	BU	A	564	605	639	682	718	746	774	812	846	926	954		
	(1)	BN	A	544	570	600	639	677	708	740	771					
Total input current (Free cooling glycol free)	(1)	BA	A	79	87	87	87	114	121	121	116	116	135	135	149	165
	(1)	BE	A	64	64	68	68	80	86	91	84	94	98	102		
	(1)	BU	A	100	100	108	108	126	134	141	139	152	156	163		
	(1)	BN	A	68	86	91	95	100	100	100	109					
Maximum current FLA	(1)	BA	A	702	750	789	832	903	951	985	1005	1053	1152	1192	1335	1455
	(1)	BE	A	725	764	818	861	920	964	1008	1026	1089	1171	1218		
	(1)	BU	A	725	764	818	861	922	965	1008	1030	1093	1174	1221		
	(1)	BN	A	739	805	854	906	958	992	1026	1064					
Peak current LRA	(1)	BA	A	876	949	972	1127	1202	1328	1325	1094	1121	1229	1252	1515	1639
	(1)	BE	A	900	964	1001	1156	1219	1341	1348	1115	1156	1247	1278		
	(1)	BU	A	900	964	1001	1156	1221	1342	1348	1119	1160	1250	1281		
	(1)	BN	A	914	1004	1037	1201	1257	1369	1366	1153					
Compressors			type	twin-screw												
Compressors			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Refrigerant gas			type	R134a												
Heat exchanger			type	shell and tube												
Quantity	(1)	BA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	BE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	BU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	BN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type	axial												
Quantity		BA	n°	16	18	18	18	20	22	22	24	24	28	28	30	34
		BE	n°	20	20	22	22	24	26	28	28	30	30	32		
		BU	n°	20	20	22	22	24	26	28	28	30	30	32		
		BN	n°	22	26	28	30	32	32	32	34					
Air flow rate		BA	m^3/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
		BE	m^3/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400		
		BU	m^3/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000		
		BN	m^3/h	246400	291200	313600	336000	358400	358400	358400	380800					
Sound data																
Sound power		BA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		BE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		BU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		BN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz	400V/3/50Hz												

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

Mod NSM Free cooling PLUS glycol free			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	GA	kW	306	349	395	447	502	519	553	597	645	674	722	808	865	947
	GE	kW	317	363	414	470	504	545	564	614	641	670	711	791	843	921
	GU	kW	327	377	428	489	528	565	586	635	664	692	732	820	885	962
	GN	kW	325	375	423	484	522	557	577	623	652	680	720	807	883	955
Input power	GA	kW	104	119	138	160	171	183	197	205	223	238	257	273	299	322
	GE	kW	107	125	139	161	181	185	198	208	223	239	258	275	301	324
	GU	kW	106	123	138	157	175	182	193	204	218	231	246	266	291	315
	GN	kW	104	120	136	155	173	180	192	203	217	231	246	267	286	310
EER	GA	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
	GE	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
	GU	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
	GN	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
SEPR	GA		6,56	6,29	5,94	5,67	6,03	5,80	5,64	6,09	5,95	5,78	5,62	5,95	5,74	5,98
	GE		6,60	6,20	6,41	6,03	5,69	6,32	6,05	6,27	6,09	5,89	5,65	6,05	5,85	5,93
	GU		6,66	6,42	6,54	6,36	6,07	6,52	6,31	6,49	6,36	6,18	6,03	6,37	6,19	6,21
	GN		6,89	6,66	6,80	6,55	6,26	6,50	6,28	6,58	6,38	6,18	6,01	6,24	6,35	6,31
Water flow rate	GA	l/h	52600	60090	67940	76940	86360	89280	95050	102710	111010	115990	124160	138940	148770	162860
	GE	l/h	54470	62460	71290	80760	86710	93810	97020	105580	110230	115210	122270	135990	145080	158470
	GU	l/h	56230	64790	73540	84070	90740	97250	100720	109150	114220	118970	125990	141090	152170	165430
	GN	l/h	55920	64530	72740	83170	89790	95770	99190	107170	112100	116890	123890	138810	151850	164280
Total pressure drops	GA	kPa	72	94	99	71	89	95	107	106	116	99	93	80	92	111
	GE	kPa	63	75	83	77	88	87	92	102	108	89	93	79	90	108
	GU	kPa	66	80	87	82	95	92	98	104	87	94	86	84	98	116
	GN	kPa	54	64	66	82	95	91	97	78	85	92	85	83	99	105
Cooling capacity	GA	kW	279	287	296	310	377	381	385	461	470	489	494	573	579	647
	GE	kW	258	265	316	334	337	401	405	456	461	479	488	551	556	614
	GU	kW	287	299	356	380	388	457	461	516	541	546	562	627	639	692
	GN	kW	301	318	372	384	394	447	452	516	527	532	542	605	665	723
Input power	GA	kW	18	18	18	18	25	25	25	32	32	32	32	37	37	41
	GE	kW	15	15	20	20	20	26	26	30	30	30	30	33	33	36
	GU	kW	19	19	25	27	27	32	32	37	37	37	37	41	41	45
	GN	kW	18	20	26	26	27	30	30	33	33	33	33	39	42	45
EER	GA	W/W	15,24	15,70	16,17	16,90	15,29	15,44	15,59	14,37	14,66	15,13	15,28	15,46	15,62	15,81
	GE	W/W	16,92	17,42	16,16	16,97	17,13	15,37	15,52	15,36	15,51	15,96	16,27	16,73	16,89	17,18
	GU	W/W	14,95	15,56	14,49	14,16	14,44	14,23	14,37	14,07	14,62	14,77	15,16	15,32	15,62	15,49
	GN	W/W	16,68	16,16	14,35	14,82	14,81	15,05	15,21	15,72	16,04	16,20	16,44	15,35	15,77	16,06
Total pressure drops	GA	kPa	72	94	99	71	89	95	107	106	116	99	93	80	92	111
	GE	kPa	63	75	83	77	88	87	92	102	108	89	93	79	90	108
	GU	kPa	66	80	87	82	95	92	98	104	87	94	86	84	98	116
	GN	kPa	54	64	66	82	95	91	97	78	85	92	85	83	99	105

Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling glycol free (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C; Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data																		
Total input current (Chiller)	(1)	GA	A	184	208	233	271	294	315	339	355	382	405	433	456	492	536
	(1)	GE	A	179	208	225	263	298	308	329	345	369	393	421	443	480	523
	(1)	GU	A	187	213	234	269	300	316	335	356	377	396	418	447	482	528
	(1)	GN	A	176	201	220	255	286	300	320	338	360	381	404	431	457	501
Total input current (Free cooling glycol free)	(1)	GA	A	36	36	36	37	48	48	48	62	62	62	62	71	71	79
	(1)	GE	A	23	23	30	30	30	40	40	45	45	46	46	50	50	54
	(1)	GU	A	38	38	48	52	52	62	62	71	71	71	71	79	79	87
	(1)	GN	A	27	30	40	40	41	45	45	50	50	50	50	60	64	68
Maximum current FLA	(1)	GA	A	250	278	305	338	384	405	427	466	491	491	491	549	597	654
	(1)	GE	A	251	279	317	351	384	420	442	476	501	501	501	558	606	662
	(1)	GU	A	251	279	317	354	388	420	441	476	501	501	501	558	606	662
	(1)	GN	A	260	290	332	365	400	430	451	485	510	510	510	572	628	691
Peak current LRA	(1)	GA	A	271	313	356	394	429	476	494	535	545	546	546	680	719	849
	(1)	GE	A	272	314	368	407	430	491	509	545	555	556	556	688	728	858
	(1)	GU	A	272	314	368	410	433	491	508	545	555	555	556	688	728	857
	(1)	GN	A	281	326	383	421	445	501	518	554	564	564	564	703	751	886
Compressors			type	twin-screw													
Compressors			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type	R134a													
Heat exchanger			type	shell and tube													
Quantity	(1)	GA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	GE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	GU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	GN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans			type	axial													
Quantity		GA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		GE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		GU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		GN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		GA	m^3/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
		GE	m^3/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
		GU	m^3/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
		GN	m^3/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
Sound data																		
Sound power		GA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		GE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		GU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		GN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply			V/ph/Hz	400V/3/50Hz													

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Technical data

Mod NSM Free cooling PLUS glycol free			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	GA	kW	989	1074	1119	1156	1213	1295	1336	1448	1490	1647	1692	1823	2013
	GE	kW	988	1042	1127	1148	1207	1269	1332	1422	1488	1583	1668		
	GU	kW	1025	1088	1174	1201	1258	1319	1379	1482	1545	1656	1742		
	GN	kW	999	1093	1156	1212	1268	1311	1354	1470					
Input power	GA	kW	351	370	397	428	444	458	478	498	527	564	591	667	712
	GE	kW	344	375	395	424	442	454	467	498	517	577	597		
	GU	kW	335	362	383	410	431	444	458	483	504	556	577		
	GN	kW	337	353	373	396	420	438	455	477					
EER	GA	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
	GE	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80		
	GU	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02		
	GN	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08					
SEPR	GA		5,69	5,86	5,66	5,60	5,50	5,64	5,54	5,97	5,79	6,00	5,87	5,60	5,80
	GE		6,00	5,72	5,90	5,71	5,59	5,70	5,98	6,08	6,21	5,65	5,84		
	GU		6,29	6,09	6,19	5,91	6,00	6,09	6,19	6,38	6,45	6,19	6,23		
	GN		6,07	6,38	6,30	6,44	6,46	6,36	6,26	6,56					
Water flow rate	GA	l/h	170060	184760	192490	198900	208590	222770	229830	249020	256220	283280	291010	313530	346260
	GE	l/h	169860	179210	193870	197450	207550	218320	229100	244540	255930	272310	286960		
	GU	l/h	176350	187150	201920	206550	216360	226790	237230	254900	265810	284790	299560		
	GN	l/h	171790	187940	198770	208410	218050	225490	232920	252840					
Total pressure drops	GA	kPa	120	130	140	114	107	123	131	111	120	130	140	106	133
	GE	kPa	124	126	128	132	83	114	111	111	122	122	131		
	GU	kPa	118	135	137	143	103	123	112	116	118	135	137		
	GN	kPa	114	102	103	109	71	77	81	104					
Cooling capacity	GA	kW	653	730	737	744	797	857	865	964	970	1118	1125	1210	1355
	GE	kW	683	694	752	759	819	875	931	951	1020	1039	1097		
	GU	kW	784	792	854	863	941	998	1055	1080	1165	1184	1254		
	GN	kW	730	853	903	978	1043	1051	1053	1113					
Input power	GA	kW	41	45	45	45	49	52	52	59	59	70	70	77	85
	GE	kW	42	42	45	45	52	56	59	55	62	64	67		
	GU	kW	52	52	56	56	66	70	73	72	76	76	84		
	GN	kW	45	56	59	63	66	66	66	72					
EER	GA	W/W	15,96	16,25	16,40	16,56	16,36	16,33	16,49	16,25	16,35	16,07	16,17	15,72	15,97
	GE	W/W	16,12	16,35	16,63	16,78	15,67	15,67	15,67	17,16	16,44	16,15	16,35		
	GU	W/W	14,95	15,09	15,19	15,34	14,33	14,35	14,38	15,10	15,42	15,66	14,92		
	GN	W/W	16,22	15,28	15,21	15,63	15,88	16,02	16,04	15,54					
Total pressure drops	GA	kPa	120	130	140	114	107	123	131	111	120	130	140	106	133
	GE	kPa	124	126	128	132	83	114	111	111	122	122	131		
	GU	kPa	118	135	137	143	103	123	112	116	118	135	137		
	GN	kPa	114	102	103	109	71	77	81	104					

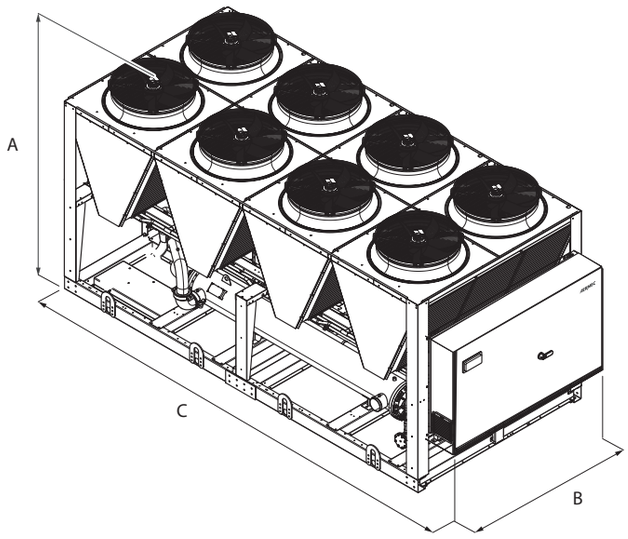
Cooling mode
Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling glycol free (100%)
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C; Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data																
Total input current (Chiller)	(1)	GA	A	588	621	662	713	741	769	805	830	882	956	998	1112	1211
	(1)	GE	A	561	609	640	687	717	740	763	814	842	937	957		
	(1)	GU	A	569	611	645	688	725	752	780	819	854	936	963		
	(1)	GN	A	550	575	606	644	682	714	746	778					
Total input current (Free cooling glycol free)	(1)	GA	A	79	87	87	87	95	102	102	116	116	135	135	149	165
	(1)	GE	A	64	64	68	68	80	86	91	84	94	98	102		
	(1)	GU	A	101	101	108	108	126	134	141	139	147	147	162		
	(1)	GN	A	68	86	91	95	100	100	100	109					
Maximum current FLA	(1)	GA	A	702	749	788	831	883	931	965	1004	1052	1151	1190	1334	1453
	(1)	GE	A	725	764	817	860	920	964	1007	1026	1088	1170	1217		
	(1)	GU	A	725	764	817	860	921	964	1007	1029	1086	1164	1218		
	(1)	GN	A	739	805	853	905	957	991	1025	1064					
Peak current LRA	(1)	GA	A	876	949	971	1126	1182	1308	1305	1093	1120	1228	1250	1514	1637
	(1)	GE	A	899	963	1000	1155	1219	1341	1347	1114	1156	1246	1277		
	(1)	GU	A	899	963	1000	1155	1220	1341	1347	1117	1153	1240	1278		
	(1)	GN	A	913	1004	1036	1200	1256	1368	1365	1152					
Compressors			type							twin-screw						
Compressors			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Refrigerant gas			type							R134a						
Heat exchanger			type							shell and tube						
Quantity	(1)	GA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	GE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	GU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	GN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type							axial						
Quantity		GA	n°	16	18	18	18	20	22	22	24	24	28	28	30	34
		GE	n°	20	20	22	22	24	26	28	28	30	30	32		
		GU	n°	20	20	22	22	24	26	28	28	30	30	32		
		GN	n°	22	26	28	30	32	32	32	34					
Air flow rate		GA	m^3/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800
		GE	m^3/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400		
		GU	m^3/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400		
		GN	m^3/h	235400	278200	299600	321000	342400	342400	342400	363800					
Sound data																
Sound power		GA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		GE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		GU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		GN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz							400V/3/50Hz						

(1) The electric data is of the versions without integrated hydronic kit.
Sound power Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.
Note: For further information, refer to the selection program or to the technical documentation on www.aermec.com

Dimensions and Weights



Mod. NSM Free cooling glycol free and Free cooling plus glycol free

			Vers	1402	1602	1802	2002	2202	2352	2502	2652
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	5160	5160	5160	5160	6350	6350	6350	7140
			E	5160	5160	6350	6350	6350	7140	7140	8330
			U	5160	5160	6350	6350	6350	7140	7140	8330
			N	6350	6350	7140	7140	7140	8330	8330	9520

			Vers	2802	3002	3202	3402	3602	3902	4202	4502
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	7140	7140	7140	8330	8330	9520	9520	10710
			E	8330	8330	8330	9520	9520	10710	11900	11900
			U	8330	8330	8330	9520	9520	10710	11900	11900
			N	9520	9520	9520	10710	11900	13090	13090	15470

			Vers	4802	5202	5602	6002	6402	6503	6703	6903
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	10710	10710	11900	13090	13090	14280	14280	16660
			E	13090	13090	14280	15470	16660	16660	17850	17850
			U	13090	13090	14280	15470	16660	16660	17850	17850
			N	16660	17850	19040	19040	19040	20230		

			Vers	7203	8403	9603
Height	(mm)	A	All	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200
Length	(mm)	C	A	16660	17850	20230
			E	19040		
			U	19040		
			N			

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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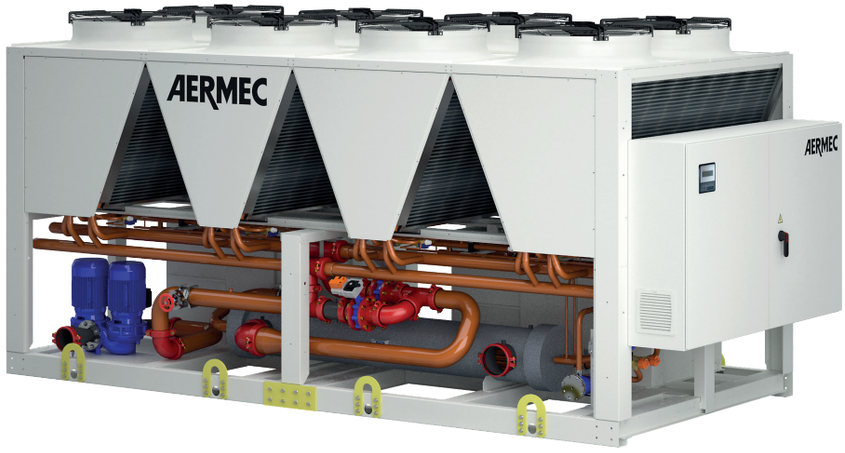
Cod.: SNSMBGUY.01 / 1801

NSM HWT

1402/9603 free cooling

Air/Water chillers for outdoor installation with free cooling
Screw compressors, shell and tube heat exchangers and axial fans
Cooling capacity 306 - 2001kW

HFC Refrigerant R134a



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **IDEAL IN DATA CENTER APPLICATIONS**
- **WATER OUTLET TEMPERATURES UP TO 30°C**
- **NIGHT MODE**

Features

The NSM are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.
Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

Versions
NSM WF_A High Efficiency
NSMIWF_E High efficiency low noise
NSM WF_U Very high efficiency
NSMIWF_N Very high efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
  - **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load.
    Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
  - The presence of a programmable timer allows setting time bands of operation and a possible second set-point
  - The temperature control takes place with the integral proportional logic, based on the water output temperature.

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **FB1:** Air filter;
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Supporti anti-vibranti a molla.

Accessories factory fitted only
- **KRS:** Evaporator trace heating
- **GP:** Anti-intrusion grids.

Accessories compatibility

Mod. NSM	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIFNSM		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•
Accessories factory fitted only										
KRS	(1)	•	•	•	•	•	•	•	•	•
RIFNSM		4802	5202	5602	6002	6402	6903	7203	8403	9603
GP	(1)	•	•	•	•	•	•	•	•	•
AK	(2)	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(2) The accessory is only available for the "E/N" silenced versions
(x2) Indicates the amount to order

Note:
(1) Contattare la sede per temperature inferiori

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Description**

1,2,3 **NSM**

4,5,6,7 **Size**

1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202
3402-3602-3902-4202-4502-4802-5202-5602-6002-6402
6903-7203-8403-9603

8 **Operational limits**

W Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)

9 **Model**

F Free cooling

P Free cooling Plus (3)

11 **Versions**

A High efficiency

E Low noise high efficency

U Very high efficiency

N Low noise very high efficiency

12 **Condensing coils**

° Aluminium microchannel

O Painted aluminium microchannel

R Copper - Copper (3)

S Copper - Thinned (3)

V Epoxy paint (only free cooling coil)(3)

13 **Fans**

J Inverter

14 **Power supply**

° 400V/3/50Hz

15-16 **Integrated hydronic kit**

00 Without hydronic kit

PA Pumping unit (pump A)

PB Pumping unit (pump B)

PC Pumping unit (pump C)

PD Pumping unit (pump D)

PE Pumping unit (pump E)

PF Pumping unit (pump F)

PG Pumping unit (pump G)

PH Pumping unit (pump H)

PI Pumping unit (pump I)

PJ Pumping unit (pump J)

DA Pumping unit (pump A and stand-by pump)

DB Pumping unit (pump B and stand-by pump)

DC Pumping unit (pump C and stand-by pump)

DD Pumping unit (pump D and stand-by pump)

DE Pumping unit (pump E and stand-by pump)

DF Pumping unit (pump F and stand-by pump)

DG Pumping unit (pump G and stand-by pump)

DH Pumping unit (pump H and stand-by pump)

DI Pumping unit (pump I and stand-by pump)

DJ Pumping unit (pump J and stand-by pump)

Free cooling water coils

Copper Aluminium
Painted Aluminium Copper
Copper Copper
Copper - Thinned
Epoxy paint (only free cooling coil)

Operation of pumps in parallel

TF Double static, pressure pump (pump F)

TG Double static, pressure pump (pump G)

TH Double static, pressure pump (pump h)

TI Double static, pressure pump (pump i)

TJ Double static, pressure pump (pump J)

(3) The free cooling plus models can have coils only in options "°" and "O"

Technical data

NSMW - FA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
	Total input power	(1)	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
	EER	(1)		3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
	Water flow rate	(1)	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
	Pressure drop	(1)	kPa	60	80	95	76	89	99	116	85	91	96	84	93	103
25°C	Cooling capacity	(2)	kW	336	351	363	370	449	454	462	542	551	554	559	644	651
	Total input power	(2)	kW	19,3	19,3	19,3	19,3	24,1	24,1	24,1	28,9	28,9	28,9	28,9	33,7	33,7
	EER	(2)		17,43	18,20	18,82	19,20	18,63	18,86	19,16	18,74	19,06	19,15	19,32	19,11	19,29
	Water flow rate	(2)	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
	Pressure drop	(2)	kPa	87	115	139	129	133	147	171	128	141	147	141	146	161

NSMW - FA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
	Total input power	(1)	kW	216	228	244	260	281	295	319	343	373	388	442	512
	EER	(1)		3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
	Water flow rate	(1)	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
	Pressure drop	(1)	kPa	69	74	91	101	94	110	130	144	116	116	117	138
25°C	Cooling capacity	(2)	kW	735	740	827	836	845	935	1025	1033	1284	1293	1402	1590
	Total input power	(2)	kW	38,5	38,5	43,4	43,4	43,4	48,2	53,0	53,0	67,5	67,5	72,3	81,9
	EER	(2)		19,07	19,19	19,07	19,27	19,48	19,39	19,33	19,49	19,03	19,17	19,40	19,42
	Water flow rate	(2)	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
	Pressure drop	(2)	kPa	119	127	142	158	159	173	194	213	165	165	179	207

NSMW - PA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
	Total input power	(1)	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
	EER	(1)		3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
	Water flow rate	(1)	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
	Pressure drop	(1)	kPa	59	79	94	75	89	98	115	84	90	95	83	92	102
25°C	Cooling capacity	(2)	kW	361	378	391	399	484	490	497	584	594	597	602	694	701
	Total input power	(2)	kW	19,7	19,7	19,7	19,7	24,6	24,6	24,6	29,5	29,5	29,5	29,5	34,4	34,4
	EER	(2)		18,35	19,22	19,89	20,29	19,69	19,93	20,25	19,81	20,15	20,24	20,41	20,19	20,38
	Water flow rate	(2)	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
	Pressure drop	(2)	kPa	86	114	138	128	131	145	169	127	139	146	139	145	160

NSMW - PA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
	Total input power	(1)	kW	218	230	247	262	284	298	322	346	377	392	447	517
	EER	(1)		3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
	Water flow rate	(1)	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
	Pressure drop	(1)	kPa	69	73	90	100	93	109	129	142	115	115	115	136
25°C	Cooling capacity	(2)	kW	792	797	891	900	910	1007	1104	1113	1384	1393	1510	1713
	Total input power	(2)	kW	39,3	39,3	44,2	44,2	44,2	49,1	54,0	54,0	68,8	68,8	73,7	83,5
	EER	(2)		20,16	20,28	20,16	20,36	20,58	20,49	20,42	20,59	20,12	20,25	20,49	20,51
	Water flow rate	(2)	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
	Pressure drop	(2)	kPa	118	126	141	156	157	172	192	211	164	164	178	205

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	FA	(3)	A	146	166	187	200	208	224	242	258	277	290	306	327	348
	PA	(3)	A	147	167	188	201	210	226	244	260	279	292	308	330	351
Total input current (freecooling)	FA	(3)	A	30,0	30,0	30,0	30,0	37,6	37,6	37,6	45,1	45,1	45,1	45,1	52,6	52,6
	PA	(3)	A	30,6	30,6	30,6	30,6	38,2	38,2	38,2	45,9	45,9	45,9	45,9	53,5	53,5
Maximum current (FLA)	Alls	(3)	A	204	226	251	257	273	290	306	335	355	380	405	428	440
Starting current (LRA)	Alls	(3)	A	277	285	299	336	350	346	359	439	451	515	568	622	592
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1												
Axial fans																
Fan	Alls		n°	8	8	8	8	10	10	10	12	12	12	12	14	14
Sound data (cooling)																
Sound power level	Alls		dB(A)	97	97	97	97	98	98	98	98	98	99	99	100	101

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	FA	(3)	A	362	377	416	453	478	494	531	567	646	683	740	854
	PA	(3)	A	365	381	420	456	482	498	536	571	652	688	747	861
Total input current (freecooling)	FA	(3)	A	60,1	60,1	67,6	67,6	67,6	75,1	82,6	82,6	105,1	105,1	112,7	127,7
	PA	(3)	A	61,2	61,2	68,8	68,8	68,8	76,5	84,1	84,1	107,0	107,0	114,7	130,0
Maximum current (FLA)	Alls	(3)	A	473	497	538	570	590	620	668	701	831	863	933	1051
Starting current (LRA)	Alls	(3)	A	601	625	680	710	846	886	965	958	902	932	1137	1205
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Refrigerant			Type	R134a											
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	2	2	2	2
Axial fans															
Fan	Alls		n°	16	16	18	18	18	20	22	22	28	28	30	34
Sound data (cooling)															
Sound power level	Alls		dB(A)	101	100	101	101	101	102	102	102	104	104	105	105

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - FE				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
	Total input power	(1)	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
	EER	(1)		4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
	Water flow rate	(1)	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
	Pressure drop	(1)	kPa	42	49	64	76	85	61	66	68	74	79	80	51	58
25°C	Cooling capacity	(2)	kW	267	273	337	342	344	408	411	474	478	479	482	548	551
	Total input power	(2)	kW	6,4	6,4	7,9	7,9	7,9	9,5	9,5	11,1	11,1	11,1	11,1	12,7	12,7
	EER	(2)		41,99	43,01	42,41	43,05	43,31	42,79	43,10	42,64	42,94	43,08	43,29	43,10	43,35
	Water flow rate	(2)	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
	Pressure drop	(2)	kPa	71	86	97	115	127	95	104	102	112	118	122	89	99

NSMW - FE				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	/	/
	Total input power	(1)	kW	202	210	228	241	260	275	296	318	350	364	/	/
	EER	(1)		4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	/	/
	Water flow rate	(1)	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	/	/
	Pressure drop	(1)	kPa	69	78	91	86	94	65	81	81	105	105	/	/
25°C	Cooling capacity	(2)	kW	616	680	686	753	759	826	893	960	1031	1099	/	/
	Total input power	(2)	kW	14,3	15,9	15,9	17,5	17,5	19,1	20,7	22,3	23,8	25,4	/	/
	EER	(2)		43,07	42,76	43,17	43,10	43,39	43,32	43,24	43,16	43,27	43,21	/	/
	Water flow rate	(2)	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	/	/
	Pressure drop	(2)	kPa	107	114	133	128	140	106	121	121	150	150	/	/

NSMW - PE				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
	Total input power	(1)	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
	EER	(1)		4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
	Water flow rate	(1)	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
	Pressure drop	(1)	kPa	42	49	63	75	83	60	65	67	73	78	79	51	57
25°C	Cooling capacity	(2)	kW	285	292	360	365	367	435	438	506	509	511	513	584	587
	Total input power	(2)	kW	6,5	6,5	8,1	8,1	8,1	9,7	9,7	11,3	11,3	11,3	11,3	12,9	12,9
	EER	(2)		44,05	45,10	44,49	45,14	45,38	44,88	45,19	44,73	45,03	45,17	45,36	45,18	45,42
	Water flow rate	(2)	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
	Pressure drop	(2)	kPa	70	86	96	113	125	94	102	101	110	116	120	88	98

NSMW - PE				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	/	/
	Total input power	(1)	kW	204	212	230	244	263	278	300	321	354	368	/	/
	EER	(1)		4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	/	/
	Water flow rate	(1)	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	/	/
	Pressure drop	(1)	kPa	68	77	90	85	93	64	80	80	104	104	/	/
25°C	Cooling capacity	(2)	kW	657	725	732	803	808	880	952	1024	1099	1171	/	/
	Total input power	(2)	kW	14,5	16,2	16,2	17,8	17,8	19,4	21,0	22,6	24,2	25,9	/	/
	EER	(2)		45,16	44,85	45,26	45,19	45,45	45,40	45,32	45,24	45,35	45,30	/	/
	Water flow rate	(2)	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	/	/
	Pressure drop	(2)	kPa	106	113	131	127	139	104	119	120	148	149	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	FE	(3)	A	134	158	175	189	199	210	227	240	258	272	288	303	325
	PE	(3)	A	134	159	176	190	201	211	229	242	260	274	291	306	328
Total input current (freecooling)	FE	(3)	A	9,4	9,4	11,8	11,8	11,8	14,1	14,1	16,5	16,5	16,5	16,5	18,8	18,8
	PE	(3)	A	9,6	9,6	11,9	11,9	11,9	14,3	14,3	16,7	16,7	16,7	16,7	19,1	19,1
Maximum current (FLA)	Alls	(3)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
Starting current (LRA)	Alls	(3)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	93	93	93	94	94	93	93	93	93	95	96	98	98

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	FE	(3)	A	339	348	388	421	443	460	493	526	601	631	/	/
	PE	(3)	A	342	351	392	425	448	464	497	531	607	636	/	/
Total input current (freecooling)	FE	(3)	A	21,2	23,5	23,5	25,9	25,9	28,2	30,6	32,9	35,3	37,6	/	/
	PE	(3)	A	21,5	23,9	23,9	26,3	26,3	28,7	31,0	33,4	35,8	38,2	/	/
Maximum current (FLA)	Alls	(3)	A	483	516	548	595	615	645	688	730	841	882	/	/
Starting current (LRA)	Alls	(3)	A	611	644	690	735	871	911	984	986	911	951	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/
Refrigerant	Alls		Type	R134a										/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	2	2	2	2	2	/	/
Axial fans															
Fan	Alls		n°	18	20	20	22	22	24	26	28	30	32	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	98	96	97	97	99	100	100	99	99	99	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - FU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
	Total input power	(1)	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
	EER	(1)		3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
	Water flow rate	(1)	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
	Pressure drop	(1)	kPa	46	54	71	84	94	66	72	74	81	86	87	56	64
25°C	Cooling capacity	(2)	kW	344	359	437	450	455	533	540	617	625	629	635	719	728
	Total input power	(2)	kW	19,3	19,3	24,1	24,1	24,1	28,9	28,9	33,7	33,7	33,7	33,7	38,5	38,5
	EER	(2)		17,84	18,61	18,16	18,66	18,87	18,43	18,67	18,31	18,54	18,65	18,84	18,66	18,89
	Water flow rate	(2)	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
	Pressure drop	(2)	kPa	77	95	107	127	142	104	114	111	122	129	134	97	109

NSMW - FU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	/	/
	Total input power	(1)	kW	216	228	243	260	276	293	317	341	372	388	/	/
	EER	(1)		3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	/	/
	Water flow rate	(1)	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	/	/
	Pressure drop	(1)	kPa	75	84	99	94	103	71	88	88	116	116	/	/
25°C	Cooling capacity	(2)	kW	808	886	902	989	1003	1091	1177	1262	1359	1446	/	/
	Total input power	(2)	kW	43,4	48,2	48,2	53,0	53,0	57,8	62,6	67,5	72,3	77,1	/	/
	EER	(2)		18,64	18,38	18,72	18,65	18,92	18,86	18,78	18,71	18,80	18,75	/	/
	Water flow rate	(2)	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	/	/
	Pressure drop	(2)	kPa	117	124	145	140	154	116	132	132	166	165	/	/

NSMW - PU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
	Total input power	(1)	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
	EER	(1)		3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
	Water flow rate	(1)	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
	Pressure drop	(1)	kPa	46	54	70	83	93	66	72	73	80	85	86	55	63
25°C	Cooling capacity	(2)	kW	370	386	471	484	490	574	582	665	674	678	685	775	785
	Total input power	(2)	kW	19,7	19,7	24,6	24,6	24,6	29,5	29,5	34,4	34,4	34,4	34,4	39,3	39,3
	EER	(2)		18,82	19,66	19,17	19,72	19,94	19,47	19,73	19,34	19,59	19,71	19,91	19,72	19,97
	Water flow rate	(2)	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
	Pressure drop	(2)	kPa	77	94	106	126	140	103	113	111	121	128	133	96	108

NSMW - PU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	/	/
	Total input power	(1)	kW	218	230	245	262	278	296	320	344	375	392	/	/
	EER	(1)		3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	/	/
	Water flow rate	(1)	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	/	/
	Pressure drop	(1)	kPa	75	84	99	93	102	70	87	87	115	115	/	/
25°C	Cooling capacity	(2)	kW	871	954	972	1066	1081	1176	1268	1360	1465	1558	/	/
	Total input power	(2)	kW	44,2	49,1	49,1	54,0	54,0	59,0	63,9	68,8	73,7	78,6	/	/
	EER	(2)		19,70	19,42	19,79	19,71	20,00	19,94	19,85	19,77	19,88	19,82	/	/
	Water flow rate	(2)	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	/	/
	Pressure drop	(2)	kPa	117	123	144	139	153	115	131	131	164	164	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	FU	(3)	A	148	170	192	204	212	229	244	263	279	291	305	326	345
	PU	(3)	A													
Total input current (freecooling)	FU	(3)	A	30,0	30,0	37,6	37,6	37,6	45,1	45,1	52,6	52,6	52,6	52,6	60,1	60,1
	PU	(3)	A													
Maximum current (FLA)	Alls	(3)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
Starting current (LRA)	Alls	(3)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	97	97	98	98	98	99	99	99	99	99	100	101	102

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	FU	(3)	A	363	378	414	454	472	493	529	566	639	677	/	/
	PU	(3)	A	366	381	418	457	475	497	533	570	644	682	/	/
Total input current (freecooling)	FU	(3)	A	67,6	75,1	75,1	82,6	82,6	90,1	97,6	105,1	112,7	120,2	/	/
	PU	(3)	A	68,8	76,5	76,5	84,1	84,1	91,8	99,4	107,0	114,7	122,3	/	/
Maximum current (FLA)	Alls	(3)	A	483	516	548	595	615	645	688	730	841	882	/	/
Starting current (LRA)	Alls	(3)	A	611	644	690	735	871	911	984	986	911	951	/	/
Compressors - Screw														/	/
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/
Refrigerant	Alls		Type	R134a											
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	2	2	2	2	2	/	/
Axial fans															
Fan	Alls		n°	18	20	20	22	22	24	26	28	30	32	/	/
Sound data (cooling)															
Livello di potenza sonora	Alls		dB(A)	101	101	101	102	102	103	103	103	104	104	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - FN				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
	Total input power	(1)	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
	EER	(1)		4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
	Water flow rate	(1)	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
	Pressure drop	(1)	kPa	46	54	42	49	56	65	71	45	49	53	51	54	64
25°C	Cooling capacity	(2)	kW	318	330	391	401	404	465	470	531	536	539	543	607	670
	Total input power	(2)	kW	7,9	7,9	9,5	9,5	9,5	11,1	11,1	12,7	12,7	12,7	12,7	14,3	15,9
	EER	(2)		39,96	41,57	41,02	42,00	42,41	41,76	42,22	41,75	42,17	42,36	42,67	42,46	42,16
	Water flow rate	(2)	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
	Pressure drop	(2)	kPa	67	81	66	78	87	93	102	72	79	84	84	87	95

NSMW - FN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	852	881	969	1033	1115	1198	1263	1329	/	/	/	/
	Total input power	(1)	kW	195	207	218	232	249	265	288	311	/	/	/	/
	EER	(1)		4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	/	/	/	/
	Water flow rate	(1)	l/h	146560	151590	166730	177640	191820	206010	217280	228590	/	/	/	/
	Pressure drop	(1)	kPa	75	81	80	80	80	45	53	53	/	/	/	/
25°C	Cooling capacity	(2)	kW	731	737	857	921	988	1056	1068	1079	/	/	/	/
	Total input power	(2)	kW	17,5	17,5	20,7	22,3	23,8	25,4	25,4	25,4	/	/	/	/
	EER	(2)		41,84	42,13	41,48	41,37	41,45	41,52	42,01	42,42	/	/	/	/
	Water flow rate	(2)	l/h	146560	151590	166730	177640	191820	206010	217280	228590	/	/	/	/
	Pressure drop	(2)	kPa	105	113	106	106	106	71	84	84	/	/	/	/

NSMW - PN				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
	Total input power	(1)	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
	EER	(1)		4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
	Water flow rate	(1)	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
	Pressure drop	(1)	kPa	45	53	42	49	55	64	70	44	49	52	50	54	63
25°C	Cooling capacity	(2)	kW	337	352	417	427	431	495	501	566	572	575	579	648	715
	Total input power	(2)	kW	8,1	8,1	9,7	9,7	9,7	11,3	11,3	12,9	12,9	12,9	12,9	14,5	16,2
	EER	(2)		41,76	43,58	42,96	44,05	44,49	43,79	44,29	43,78	44,23	44,44	44,76	44,54	44,22
	Water flow rate	(2)	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
	Pressure drop	(2)	kPa	66	80	65	77	86	92	101	71	78	83	83	86	94

NSMW - PN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	848	877	965	1028	1110	1192	1257	1322	/	/	/	/
	Total input power	(1)	kW	197	209	220	234	251	268	291	314	/	/	/	/
	EER	(1)		4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	/	/	/	/
	Water flow rate	(1)	l/h	145850	150820	165970	176870	190950	205020	216210	227390	/	/	/	/
	Pressure drop	(1)	kPa	74	80	79	79	79	45	53	53	/	/	/	/
25°C	Cooling capacity	(2)	kW	780	786	914	981	1053	1125	1139	1151	/	/	/	/
	Total input power	(2)	kW	17,8	17,8	21,0	22,6	24,2	25,9	25,9	25,9	/	/	/	/
	EER	(2)		43,88	44,20	43,48	43,37	43,45	43,52	44,06	44,51	/	/	/	/
	Water flow rate	(2)	l/h	145850	150820	165970	176870	190950	205020	216210	227390	/	/	/	/
	Pressure drop	(2)	kPa	104	112	105	105	105	70	84	84	/	/	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

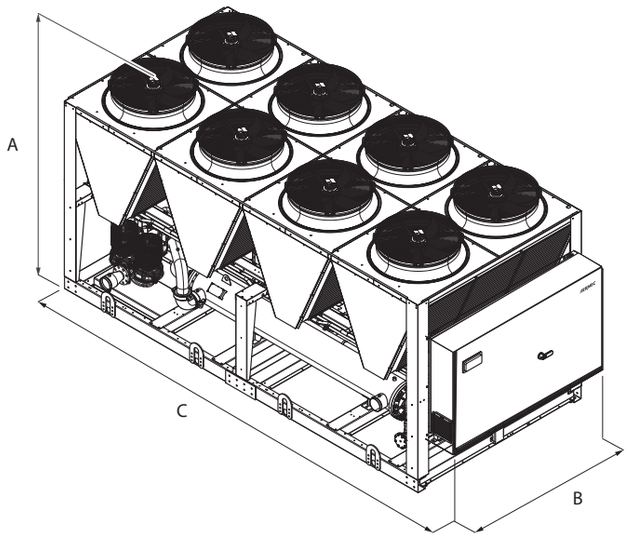
				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	FN	(3)	A	132	154	172	184	192	206	222	235	252	265	280	297	313
	PN	(3)	A	132	155	173	185	194	207	224	237	254	267	282	300	316
Total input current (freecooling)	FN	(3)	A	12	12	14	14	14	16	16	19	19	19	19	21	24
	PN	(3)	A	12	12	14	14	14	17	17	19	19	19	19	21	24
Maximum current (FLA)	Alls	(3)	A	214	236	270	277	283	309	325	354	374	399	425	447	469
Starting current (LRA)	Alls	(3)	A	287	295	318	355	360	366	378	458	471	535	588	641	621
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data (cooling)																
Sound power level	Alls		dB(A)	93	93	94	94	94	94	93	93	93	94	96	98	99

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	FN	(3)	A	328	343	374	408	427	447	481	516	/	/	/	/
	PN	(3)	A	330	346	377	411	430	450	485	520	/	/	/	/
Total input current (freecooling)	FN	(3)	A	26	26	31	33	35	38	38	38	/	/	/	/
	PN	(3)	A	26	26	31	33	36	38	38	38	/	/	/	/
Maximum current (FLA)	Alls	(3)	A	508	531	583	624	654	683	716	749	/	/	/	/
Starting current (LRA)	Alls	(3)	A	636	659	724	764	910	949	1013	1006	/	/	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	/	/	/	/
Refrigerant	Alls		Type	R134a								/	/	/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	2	2	2	2	2	2	/	/	/	/
Axial fans															
Fan	Alls		n°	22	22	26	28	30	32	32	32	/	/	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	98	97	97	97	99	100	100	99	/	/	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Dimensions (mm)



NSMW F- P				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
			E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

NSMW F- P				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
			E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			N	13090	13090	15470	16660	17850	19040	19040	19040	/	/	/	/

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Cod.: SNSMHWTFCUY.00 / 1607

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

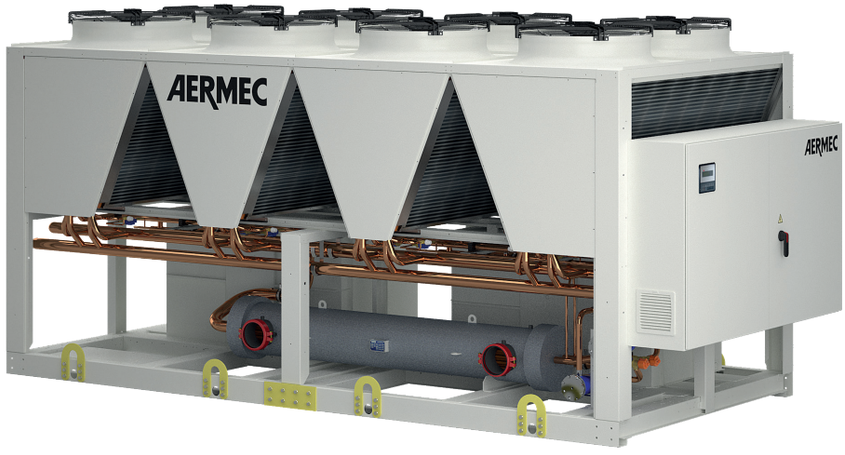
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NSM HWT

Air/Water chillers for outdoor installation with free cooling, glycol free circuit, screw compressors, shell and tube heat exchangers and axial fans. Cooling capacity 306 - 1991kW

1402/9603
free cooling
glycol free

HFC
Refrigerant
R134a



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL CONDENSER TECHNOLOGY**
- **IDEAL IN DATA CENTER APPLICATIONS**
- **WATER OUTLET TEMPERATURES UP TO 30°C**
- **NIGHT MODE FUNCTION**

Features

NSM chillers are designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

Versions
A High Efficiency
E High efficiency low noise
U Very high efficiency
N Very high efficiency low noise

- Unit with 2 or 3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- An intermediate plate heat exchanger provides two circuits: a glycol circuit, where glycol is added to protect the chiller's coils from freezing, and the chilled water circuit without glycol.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **FB1:** Air filter;
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only
- **KRS:** Evaporator trace heating
- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.

Accessories compatibility

Mod. NSM	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RIFNSM		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•
Accessories factory fitted only										
KRS	(1)	•	•	•	•	•	•	•	•	•
RIFNSM		4802	5202	5602	6002	6402	6903	7203	8403	9603
GP	(1)	•	•	•	•	•	•	•	•	•
AK	(2)	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(2) The accessory is only available for the "E/N" silenced versions
(x2) Indicates the amount to order

Note:
(1) Contattare la sede per temperature inferiori

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field		Description
1,2,3		**NSM**
4,5,6,7		**Size**
		1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202
		3402-3602-3902-4202-4502-4802-5202-5602-6002-6402
		6903-7203-8403-9603
8		**Operational limits**
	W	Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9		**Model**
	B	Free cooling Glycol Free
	G	Free cooling Glycol Free Plus (3)
10		**Versions**
	A	High efficiency
	E	Low noise high efficency
	U	Very high efficiency
	N	Low noise very high efficiency
11		**Condensing coils**
	°	Aluminium microchannel
	O	Painted aluminium microchannel
	R	Copper - Copper (3)
	S	Copper - Thinned (3)
	V	Epoxy paint (only free cooling coil)(3)
12		**Fans**
	J	Inverter
13		**Power supply**
	°	400V/3/50Hz
14-15		**Integrated hydronic kit**
	00	Without hydronic kit

Free cooling water coils
Copper Aluminium
Painted Aluminium Copper
Copper Copper
Copper - Thinned
Epoxy paint (only free cooling coil)

(3) The free cooling plus models can have coils only in options "°" and "O"

Technical data

NSMW - BA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
	Total input power	(1)	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
	EER	(1)		3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
	Water flow rate	(1)	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
	Pressure drop	(1)	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
25°C	Cooling capacity	(2)	kW	303	276	281	292	360	363	367	437	441	454	456	541	542
	Total input power	(2)	kW	22,6	22,6	22,6	22,6	29,7	29,7	29,7	38,6	38,6	38,7	38,7	44,8	44,8
	EER	(2)		13,43	12,22	12,46	12,93	12,14	12,23	12,36	11,32	11,43	11,73	11,79	12,07	12,11
	Water flow rate	(2)	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
	Pressure drop	(2)	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110

NSMW - BA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
	Total input power	(1)	kW	216	228	244	260	281	295	319	343	373	388	442	512
	EER	(1)		3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
	Water flow rate	(1)	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
	Pressure drop	(1)	kPa	128	137	148	165	155	146	171	190	126	141	111	144
25°C	Cooling capacity	(2)	kW	598	599	674	675	675	748	802	807	1038	1039	1134	1263
	Total input power	(2)	kW	49,8	49,8	55,0	55,0	55,0	60,0	64,9	64,9	84,7	84,7	93,7	103,6
	EER	(2)		12,03	12,04	12,26	12,28	12,28	12,46	12,36	12,43	12,26	12,27	12,10	12,18
	Water flow rate	(2)	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
	Pressure drop	(2)	kPa	128	137	148	165	155	146	171	190	126	141	111	144

NSMW - GA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
	Total input power	(1)	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
	EER	(1)		3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
	Water flow rate	(1)	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
	Pressure drop	(1)	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108
25°C	Cooling capacity	(2)	kW	314	287	293	305	377	380	384	459	463	478	481	570	572
	Total input power	(2)	kW	23,0	22,9	22,9	23,0	30,1	30,1	30,1	39,2	39,2	39,3	39,3	45,5	45,5
	EER	(2)		13,67	12,52	12,77	13,30	12,51	12,60	12,74	11,72	11,84	12,18	12,25	12,53	12,58
	Water flow rate	(2)	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
	Pressure drop	(2)	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108

NSMW - GA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
	Total input power	(1)	kW	218	230	247	262	284	298	322	346	377	392	447	517
	EER	(1)		3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
	Water flow rate	(1)	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
	Pressure drop	(1)	kPa	127	136	147	164	153	144	170	188	125	140	110	143
25°C	Cooling capacity	(2)	kW	628	629	708	709	709	785	839	844	1089	1090	1192	1325
	Total input power	(2)	kW	50,5	50,5	55,8	55,8	55,8	61,0	66,0	66,0	86,0	86,0	95,1	105,2
	EER	(2)		12,43	12,45	12,68	12,70	12,70	12,86	12,72	12,80	12,67	12,68	12,54	12,59
	Water flow rate	(2)	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
	Pressure drop	(2)	kPa	127	136	147	164	153	144	170	188	125	140	110	143

Date
(1) Water evaporator 25°C/20°C, External air 35°C
(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BA	(3)	A	146	166	187	200	208	224	242	258	277	290	306	327	348
	GA	(3)	A	147	167	188	201	210	226	244	260	279	292	308	330	351
Total input current (freecooling)	BA	(3)	A	36,1	36,1	36,1	36,1	47,0	47,0	47,0	61,5	61,5	61,7	61,7	71,2	71,2
	GA	(3)	A	36,6	36,6	36,6	36,6	47,7	47,7	47,7	62,3	62,3	62,5	62,5	72,1	72,1
Maximum current (FLA)	Alls	(3)	A	206	228	253	265	289	306	324	362	384	400	415	449	472
Starting current (LRA)	Alls	(3)	A	279	269	308	346	362	395	406	457	472	490	500	536	551
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1												
Axial fans																
Fan	Alls		n°	8	8	8	8	10	10	10	12	12	12	12	14	14
Sound data (cooling)																
Sound power level	Alls		dB(A)	97,1	97,1	97,4	97,3	98,1	98,0	97,8	98,4	98,4	98,7	99,3	100,4	100,8

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	BA	(3)	A	362	377	416	453	478	494	531	567	646	683	740	854
	GA	(3)	A	365	381	420	456	482	498	536	571	652	688	747	861
Total input current (freecooling)	BA	(3)	A	78,9	78,9	87,1	87,1	87,1	95,0	102,6	102,6	134,1	134,1	148,7	164,3
	GA	(3)	A	80,0	80,0	88,3	88,3	88,3	96,4	104,1	104,1	136,0	136,0	150,8	166,6
Maximum current (FLA)	Alls	(3)	A	504	527	569	602	619	645	698	737	877	910	976	1111
Starting current (LRA)	Alls	(3)	A	590	611	643	665	857	883	963	990	866	888	1072	1204
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Refrigerant			Type	R134a											
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1											
Axial fans															
Fan	Alls		n°	16	16	18	18	18	20	22	22	28	28	30	34
Sound data (cooling)															
Sound power level	Alls		dB(A)	100,8	100,4	100,8	100,9	101,4	102,3	102,3	101,9	103,7	103,8	105,0	104,8

(3) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - BE				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
	Total input power	(1)	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
	EER	(1)		4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
	Water flow rate	(1)	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
	Pressure drop	(1)	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
25°C	Cooling capacity	(2)	kW	260	228	276	285	287	343	345	389	391	402	403	469	471
	Total input power	(2)	kW	10,6	10,6	13,4	13,5	13,5	19,2	19,2	21,9	21,9	22,1	22,1	23,9	23,9
	EER	(2)		24,39	21,44	20,58	21,09	21,21	17,84	17,94	17,79	17,87	18,15	18,22	19,61	19,67
	Water flow rate	(2)	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
	Pressure drop	(2)	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106

NSMW - BE				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	/	/
	Total input power	(1)	kW	202	210	228	241	260	275	296	318	350	364	/	/
	EER	(1)		4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	/	/
	Water flow rate	(1)	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	/	/
	Pressure drop	(1)	kPa	121	135	142	152	170	81	128	110	119	123	/	/
25°C	Cooling capacity	(2)	kW	515	578	588	633	634	693	742	788	880	924	/	/
	Total input power	(2)	kW	25,6	31,3	31,5	33,1	33,1	38,4	41,1	43,7	46,8	48,5	/	/
	EER	(2)		20,11	18,44	18,68	19,09	19,12	18,02	18,06	18,01	18,79	19,06	/	/
	Water flow rate	(2)	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	/	/
	Pressure drop	(2)	kPa	121	135	142	152	170	81	128	110	119	123	/	/

NSMW - GE				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
	Total input power	(1)	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
	EER	(1)		4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
	Water flow rate	(1)	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
	Pressure drop	(1)	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104
25°C	Cooling capacity	(2)	kW	270	237	288	298	300	358	360	406	408	419	421	491	492
	Total input power	(2)	kW	10,8	10,7	13,5	13,7	13,7	19,4	19,4	22,1	22,1	22,3	22,3	24,1	24,1
	EER	(2)		25,10	22,15	21,24	21,80	21,93	18,48	18,59	18,39	18,48	18,80	18,87	20,33	20,39
	Water flow rate	(2)	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
	Pressure drop	(2)	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104

NSMW - GE				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	/	/
	Total input power	(1)	kW	204	212	230	244	263	278	300	321	354	368	/	/
	EER	(1)		4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	/	/
	Water flow rate	(1)	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	/	/
	Pressure drop	(1)	kPa	120	134	140	150	168	80	127	109	118	122	/	/
25°C	Cooling capacity	(2)	kW	538	604	615	661	662	724	775	822	920	966	/	/
	Total input power	(2)	kW	25,8	31,6	31,7	33,4	33,4	38,8	41,4	44,1	46,8	48,9	/	/
	EER	(2)		20,80	19,11	19,38	19,78	19,80	18,67	18,70	18,64	19,65	19,74	/	/
	Water flow rate	(2)	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	/	/
	Pressure drop	(2)	kPa	120	134	140	150	168	80	127	109	118	122	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BE	(3)	A	134	158	175	189	199	210	227	240	258	272	288	303	325
	GE	(3)	A	134	159	176	190	201	211	229	242	260	274	291	306	328
Total input current (freecooling)	BE	(3)	A	16,7	16,6	21,0	21,2	21,2	30,5	30,5	34,5	34,5	34,9	34,9	37,6	37,6
	GE	(3)	A	16,8	16,8	21,2	21,4	21,4	30,8	30,8	34,8	34,8	35,2	35,2	37,9	37,9
Maximum current (FLA)	Alls	(3)	A	207	229	265	277	289	322	339	372	394	410	426	457	480
Starting current (LRA)	Alls	(3)	A	279	269	317	354	362	403	415	466	480	499	509	545	560
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	92,7	93,0	93,4	93,6	93,8	93,4	92,8	92,7	92,5	94,9	96,4	97,6	98,4

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	BE	(3)	A	339	348	388	421	443	460	493	526	601	631	/	/
	GE	(3)	A	342	351	392	425	448	464	497	531	607	636	/	/
Total input current (freecooling)	BE	(3)	A	40,1	48,8	49,1	51,6	51,6	61,1	65,0	69,0	73,4	75,9	/	/
	GE	(3)	A	40,5	49,2	49,4	52,0	52,0	61,5	65,5	69,5	73,9	76,5	/	/
Maximum current (FLA)	Alls	(3)	A	512	550	583	631	648	681	730	779	894	936	/	/
Starting current (LRA)	Alls	(3)	A	598	628	651	687	879	906	980	1016	875	905	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/
Refrigerant	Alls		Type	R134a										/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	2	2	2	2	2	/	/
Axial fans															
Fan	Alls		n°	18	20	20	22	22	24	26	28	30	32	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	97,6	96,4	96,7	97,0	98,9	100,3	99,5	98,7	98,7	98,9	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - BU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
	Total input power	(1)	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
	EER	(1)		3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
	Water flow rate	(1)	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
	Pressure drop	(1)	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
25°C	Cooling capacity	(2)	kW	319	287	345	367	369	433	436	488	506	507	538	595	597
	Total input power	(2)	kW	23,6	23,5	29,6	31,5	31,5	38,6	38,6	44,5	44,7	44,7	44,8	49,8	49,8
	EER	(2)		13,52	12,20	11,67	11,64	11,72	11,22	11,30	10,96	11,31	11,35	12,01	11,96	12,00
	Water flow rate	(2)	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
	Pressure drop	(2)	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117

NSMW - BU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	/	/
	Total input power	(1)	kW	216	228	243	260	276	293	317	341	372	388	/	/
	EER	(1)		3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	/	/
	Water flow rate	(1)	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	/	/
	Pressure drop	(1)	kPa	134	133	156	166	188	112	142	128	131	135	/	/
25°C	Cooling capacity	(2)	kW	647	743	746	796	797	885	938	990	1126	1177	/	/
	Total input power	(2)	kW	54,7	63,8	63,8	68,7	68,7	79,0	84,0	89,0	98,2	103,1	/	/
	EER	(2)		11,83	11,65	11,69	11,60	11,61	11,20	11,17	11,13	11,46	11,41	/	/
	Water flow rate	(2)	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	/	/
	Pressure drop	(2)	kPa	134	133	156	166	188	112	142	128	131	135	/	/

NSMW - GU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
	Total input power	(1)	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
	EER	(1)		3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
	Water flow rate	(1)	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
	Pressure drop	(1)	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116
25°C	Cooling capacity	(2)	kW	331	300	360	385	388	455	458	510	531	533	567	624	626
	Total input power	(2)	kW	23,9	23,9	30,0	32,0	32,0	39,2	39,2	45,1	45,4	45,4	45,5	50,5	50,5
	EER	(2)		13,81	12,56	11,98	12,04	12,13	11,61	11,69	11,30	11,70	11,73	12,47	12,36	12,40
	Water flow rate	(2)	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
	Pressure drop	(2)	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116

NSMW - GU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	/	/
	Total input power	(1)	kW	218	230	245	262	278	296	320	344	375	392	/	/
	EER	(1)		3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	/	/
	Water flow rate	(1)	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	/	/
	Pressure drop	(1)	kPa	133	132	155	165	187	111	141	127	130	134	/	/
25°C	Cooling capacity	(2)	kW	676	780	783	834	835	931	984	1036	1185	1236	/	/
	Total input power	(2)	kW	55,5	64,7	64,7	69,7	69,7	80,1	85,2	90,3	99,6	104,6	/	/
	EER	(2)		12,18	12,05	12,11	11,97	11,98	11,62	11,54	11,48	11,90	11,81	/	/
	Water flow rate	(2)	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	/	/
	Pressure drop	(2)	kPa	133	132	155	165	187	111	141	127	130	134	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BU	(3)	A	148	170	192	204	212	229	244	263	279	291	305	326	345
	GU	(3)	A	149	171	194	205	214	231	246	265	281	294	308	328	347
Total input current (freecooling)	BU	(3)	A	37,3	37,3	46,8	50,1	50,1	61,5	61,5	70,6	71,0	71,0	71,2	78,9	78,9
	GU	(3)	A	37,9	37,8	47,5	50,8	50,8	62,3	62,3	71,6	72,0	72,0	72,1	80,0	80,0
Maximum current (FLA)	Alls	(3)	A	207	229	265	280	292	322	339	372	395	410	426	457	480
Starting current (LRA)	Alls	(3)	A	279	269	317	357	365	403	415	466	481	499	509	545	560
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	97,3	97,4	98,4	98,3	98,4	98,8	98,7	99,1	99,1	99,5	100,1	101,2	101,6

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	BU	(3)	A	363	378	414	454	472	493	529	566	639	677	/	/
	GU	(3)	A	366	381	418	457	475	497	533	570	644	682	/	/
Total input current (freecooling)	BU	(3)	A	86,6	100,7	100,7	108,3	108,3	125,7	133,4	141,2	155,6	163,2	/	/
	GU	(3)	A	87,8	102,0	102,0	109,8	109,8	127,3	135,2	143,1	157,6	165,4	/	/
Maximum current (FLA)	Alls	(3)	A	512	550	583	631	648	683	731	779	899	941	/	/
Starting current (LRA)	Alls	(3)	A	598	628	651	687	879	909	982	1016	880	910	/	/
Compressors - Screw														/	/
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/
Refrigerant	Alls		Type	R134a											
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	2	2	2	2	2	/	/
Axial fans															
Fan	Alls		n°	18	20	20	22	22	24	26	28	30	32	/	/
Sound data (cooling)															
Livello di potenza sonora	Alls		dB(A)	101,5	101,4	101,4	101,8	102,3	103,2	103,1	102,9	104,0	104,3	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - BN				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1)	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
	Total input power	(1)	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
	EER	(1)		4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
	Water flow rate	(1)	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
	Pressure drop	(1)	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115
25°C	Cooling capacity	(2)	kW	266	278	329	334	337	384	387	439	441	442	467	523	567
	Total input power	(2)	kW	12,2	13,5	19,1	19,1	19,9	21,9	21,9	23,8	23,8	23,8	23,9	29,3	31,0
	EER	(2)		21,73	20,57	17,29	17,53	16,94	17,58	17,68	18,41	18,50	18,55	19,52	17,83	18,28
	Water flow rate	(2)	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
	Pressure drop	(2)	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115

NSMW - BN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	852	881	969	1033	1115	1198	1263	1329	/	/	/	/
	Total input power	(1)	kW	195	207	218	232	249	265	288	311	/	/	/	/
	EER	(1)		4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	/	/	/	/
	Water flow rate	(1)	l/h	147047	152087	167278	178230	192448	206685	217997	229339	/	/	/	/
	Pressure drop	(1)	kPa	117	125	101	93	102	75	92	92	/	/	/	/
25°C	Cooling capacity	(2)	kW	617	618	727	770	828	880	887	889	/	/	/	/
	Total input power	(2)	kW	32,8	32,8	41,1	43,7	45,7	47,7	47,7	47,7	/	/	/	/
	EER	(2)		18,81	18,85	17,68	17,59	18,12	18,46	18,60	18,64	/	/	/	/
	Water flow rate	(2)	l/h	147047	152087	167278	178230	192448	206685	217997	229339	/	/	/	/
	Pressure drop	(2)	kPa	117	125	101	93	102	75	92	92	/	/	/	/

NSMW - GN				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
	Total input power	(1)	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
	EER	(1)		4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
	Water flow rate	(1)	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
	Pressure drop	(1)	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113
25°C	Cooling capacity	(2)	kW	279	292	346	351	354	404	407	461	463	464	491	549	595
	Total input power	(2)	kW	12,4	13,7	19,2	19,2	20,0	22,1	22,1	24,1	24,1	24,1	24,1	29,5	31,3
	EER	(2)		22,53	21,40	18,03	18,27	17,67	18,32	18,43	19,17	19,27	19,31	20,33	18,59	19,04
	Water flow rate	(2)	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
	Pressure drop	(2)	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113

NSMW - GN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	848	877	965	1028	1110	1192	1257	1322	/	/	/	/
	Total input power	(1)	kW	197	209	220	234	251	268	291	314	/	/	/	/
	EER	(1)		4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	/	/	/	/
	Water flow rate	(1)	l/h	146331	151317	166517	177452	191576	205700	216918	228136	/	/	/	/
	Pressure drop	(1)	kPa	116	124	100	92	101	74	91	91	/	/	/	/
25°C	Cooling capacity	(2)	kW	647	649	764	809	870	925	932	934	/	/	/	/
	Total input power	(2)	kW	33,1	33,1	41,4	44,1	46,1	48,1	48,1	48,1	/	/	/	/
	EER	(2)		19,56	19,61	18,44	18,34	18,87	19,22	19,37	19,41	/	/	/	/
	Water flow rate	(2)	l/h	146331	151317	166517	177452	191576	205700	216918	228136	/	/	/	/
	Pressure drop	(2)	kPa	116	124	100	92	101	74	91	91	/	/	/	/

Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

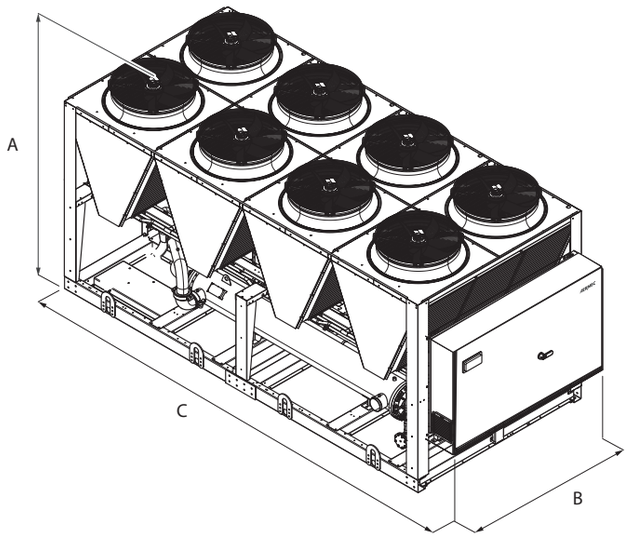
				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BN	(3)	A	132	154	172	184	192	206	222	235	252	265	280	297	313
	GN	(3)	A	132	155	173	185	194	207	224	237	254	267	282	300	316
Total input current (freecooling)	BN	(3)	A	19,1	21,2	30,3	30,3	31,5	34,5	34,5	37,5	37,5	37,5	37,6	45,8	48,3
	GN	(3)	A	19,2	21,4	30,5	30,5	31,7	34,8	34,8	37,8	37,8	37,8	37,9	46,1	48,6
Maximum current (FLA)	Alls	(3)	A	215	240	280	292	305	332	349	381	404	419	434	472	503
Starting current (LRA)	Alls	(3)	A	288	280	332	369	378	414	425	475	490	508	518	559	583
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data (cooling)																
Sound power level	Alls		dB(A)	92,8	93,1	93,9	93,8	93,9	93,7	93,2	93,0	92,8	94,3	96,0	97,9	98,7

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	BN	(3)	A	328	343	374	408	427	447	481	516	/	/	/	/
	GN	(3)	A	330	346	377	411	430	450	485	520	/	/	/	/
Total input current (freecooling)	BN	(3)	A	51,0	51,0	65,0	69,0	72,0	75,0	75,0	75,0	/	/	/	/
	GN	(3)	A	51,4	51,4	65,5	69,5	72,5	75,5	75,5	75,5	/	/	/	/
Maximum current (FLA)	Alls	(3)	A	541	564	624	667	693	719	758	797	/	/	/	/
Starting current (LRA)	Alls	(3)	A	627	642	692	723	924	945	1009	1034	/	/	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	/	/	/	/
Refrigerant	Alls		Type	R134a								/	/	/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	2	2	2	2	2	2	/	/	/	/
Axial fans															
Fan	Alls		n°	22	22	26	28	30	32	32	32	/	/	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	97,9	96,8	97,0	97,3	98,7	100,1	99,5	98,7	/	/	/	/

(3) Unit standar configuration without hydronic kit

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Dimensions (mm)



NSMW B- G				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
			E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

NSMW B- G				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
			E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			N	13090	13090	15470	16660	17850	19040	19040	19040	/	/	/	/

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Cod.: SNSMHWTGFUY.00 / 1610

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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WATER / WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.
The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.
The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

WATER / WATER CHILLERS AND HEAT PUMPS

			Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	VENICE	Water cooled heat pump, reversible water side	-	6,9-9,7	8,2-11,5	392
	VENICE H	Water-cooled reversible heat pumps units	-	6,9-9,7	7,7-10,8	394
	WRL 026-161	Water cooled heat pump, reversible water side	-	6,2-44,7	7,7-48,3	396
	WRL 026H-161H	Water-cooled reversible heat pumps units	-	6,2-41,2	7,5-47,9	400
	WRL 180-650	Water cooled heat pump, reversible water side	-	50,0-168,0	56,0-188,5	404
	WRL 180H-650H	Water-cooled reversible heat pumps units	-	45,0-157,0	53,0-184,0	408
new	**WRK 200-700**	Water cooled heat pump, reversible water side	-	38,9-165,9	48,5-207,7	412
new	**WWM**	Water cooled heat pump, reversible water side	-	96,0	109,0	416
	NXW 0500-1650	Water cooled heat pump, reversible water side	-	111-510	127-584	420
	NXW 0500H-1650H	Water-cooled reversible heat pumps units	-	105,7-476,2	125,6-566,5	424
	Units with screw compressors					
	WS	Water cooled heat pump, reversible water side	-	134,5-699,0	-	428
	HWS	Water cooled heat pump, reversible water side	-	146,4-712,0	-	432
	WSH 0701-1101	Water-cooled reversible heat pumps units	-	166,0-269,0	190,0-312,0	436
	WF 2512-6412	Water cooled heat pump, reversible water side	-	547-1549	-	440
	HWF 2512-6412	Water cooled heat pump, reversible water side	-	540-1524	-	444
	WFG 2512-6412	Water cooled heat pump, reversible water side	-	547-1549	-	44
	Units with centrifugal compressors					
	WMX - WMG	Chiller (WMX with R134a - WMG with R1234ze)		280-324	-	452
	TW 110	Chiller (with R134a)	-	284	-	454
	WTX	Chiller (with R134a)	-	280-324	-	456

Venice

Water cooled heat pump, reversible water side
Cooling capacity 6 - 9kW
Heating capacity 8 - 11kW

R407C

Aermec
participates in the EUROVENT
Program LCP
The products of interest can be found
on the website
www.eurovent-certification.com



Features

Venice is the range of water cooled chillers operating with refrigerant R407C. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, easy of installation, low noise.

- All versions are equipped with circulation pump, water tank, water filter and safety valve
- Complies with EEC Safety Directive (CE)
- High efficiency scroll compressors
- Differential pressure switch on the external circuit standard on heat pumps
- Fluxostat standard on installation circuit
- Modular microprocessor control system
- Straightforward intuitive control panel
- High efficiency plate type heat exchangers
- Compact size
- Metallic protective cabinet with rustproof polyester paint
- Degree of protection IP 24

Accessories

- **PR3**: Remote control panel with ON/OFF, operating mode selection (cooling / heating) and general alarm indication.
- **VP**: Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.
- **VT**: Rubber anti-vibration mounts.
- **VT M**: Spring anti-vibration mounts.

Compatibility of accessories					
Venice	**PR 3**	**VP 14**	**VP 15**	**VT 7**	**VT M**
20	•	•		•	•
25	•		•	•	•
30	•		•	•	•

Technical data

VENICE				20	25	30
			V/ph/Hz		230V~50Hz	
12°C / 7°C	Cooling capacity	(1)	kW	6,94	8,24	9,75
	Total input power	(1)	kW	1,74	1,98	2,38
	EER	(1)		3,99	4,16	4,10
	ESEER	(1)		4,59	4,58	4,58
	Cooling Energy Class Eurovent	(1)		D	D	D
	Evaporator water flow rate	(1)	l/h	1194	1417	1677
	Usefoul head system side circuit	(1)	kPa	63	61	69
	Condenser water consumption	(1)	l/h	1500	1770	2095
	Pressure drops	(1)	kPa	18	13	12
40°C / 45°C	Heating capacity	(2)	kW	8.2	9.7	11.5
	Total input power	(2)	kW	2.5	2.8	3.4
	COP	(2)		3.35	3.41	3.41
	Condenser water flow rate	(2)	l/h	1421	1679	1988
	Pressure drops	(2)	kPa	16	12	11
	Evaporator water consumption	(2)	l/h	1706	2028	2399
	Pressure drops	(2)	kPa	28	29	31
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW					
	Pdesignh			11	13	16
	SCOP			4,20	4,25	4,33
	ηs			160	162	165
	Efficiency Energy Class			A++	A++	A++
	Cooling mode for low temperature					
	SEER			141,2	153,5	157,5
	ηsc			3,73	4,04	4,14

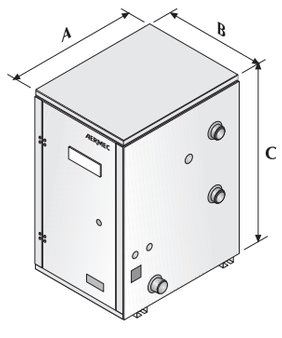
Date (14511:2013)
(1) Water system side (in/out) 12°C/7°C; Water condenser (in/out) 30°C/35°C
(2) Water system side (in/out) 45°C/50°C; Water evaporator (in/out) 10°C/7°C
(3) Efficiencies for low temperature Applications (35°C)

				20	25	30
Electrical data						
230V	Total input currente (cooling)	(3)	A	10,1	11,8	13,1
	Maximum current (FLA)	(3)	A	15	18	24
	Starting current (LRA)	(3)	A	61	76	100
Scroll Compressor						
Compressors / Circuit			n°/n°	1/1	1/1	1/1
Refrigerant			Type		R407C	
Heat exchanger system side						
Exchanger			Type/n°		Plate/1	
hydraulic connections (In/Out)			Type/Ø		male Gas/1"	
Heat exchanger source side						
Exchanger			Type/n°		Plate/1	
hydraulic connections (In/Out)			Type/Ø		male Gas/1"	
Sound data (cooling)						
Sound power level			dB(A)	56	56	57
Sound pressure level			dB(A)	48	48	49

(2) Including circulator pump power consumption
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

VENICE		20	25	30
A	mm	504	504	504
B	mm	404	404	404
C	mm	625	625	625
Weight	kg	100	103	105



Cod.: SVNC20_30UY.01 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

Venice H

Water-cooled reversible heat pumps units
Cooling capacity 6 - 9kW
Heating capacity 7 - 10kW

R407C

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participates in the EUROVENT
Program LCP
The products of interest can be
found on the website
www.eurovent-certification.com



Features

- Versions:
  Venice H: heat pump
- Cycle reversal on refrigerant circuit
- All versions are equipped with circulation pump, water tank, water filter and safety valve
- Complies with EEC Safety Directive (CE)
- High efficiency scroll compressors
- Differential pressure switch on the external circuit standard on heat pumps
- Fluxostat standard on installation circuit
- Modular microprocessor control system
- Straightforward intuitive control panel
- High efficiency plate type heat exchangers
- Compact size
- Metallic protective cabinet with rustproof polyester paint
- Degree of protection IP 24

Accessories

- **PR3**: Remote control panel with ON/OFF, operating mode selection (cooling / heating) and general alarm indication.
- **VPH**: Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.
- **VT**: Rubber anti-vibration mounts.
- **VT M**: Spring anti-vibration mounts.

Compatibility of accessories

Mod. Venice	PR 3	VPH 10	VPH 11	VT 7	VT M
20 H	•	•		•	•
25 H	•		•	•	•
30 H	•		•	•	•

Technical data

VENICE				20H	25H	30H
		V/ph/Hz			230V~50Hz	
12°C / 7°C	Cooling capacity	(1)	kW	6,94	8,18	9,75
	Total input power	(1)	kW	1,94	2.19	2,58
	EER	(1)		3,55	3.74	3.76
	ESEER	(1)		3.9	4.14	4.23
	Evaporator water flow rate	(1)	l/h	1184	1417	1677
	Usefoul head system side circuit	(1)	kPa	63	61	59
	Condenser water consumption	(1)	l/h	1495	1770	2095
	Pressure drops	(1)	kPa	18	17	12
45°C /50°C	Heating capacity	(2)	kW	7,77	9,26	10,85
	Total input power	(2)	kW	2,59	3,08	3,57
	COP	(2)		3,00	3,01	3,04
	Condenser water flow rate	(2)	l/h	1342	1600	1875
	Usefoul head system side circuit	(2)	kPa	61	59	57
	Evaporator water consumption	(2)	l/h	929	1106	1300
	Pressure drops	(2)	kPa	2	2	2
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW					
	Pdesignh	(3)		11	13	16
	SCOP	(3)		4,20	4,25	4,33
	ηs	(3)		160	162	165
	Efficiency Energy Class			A++	A++	A++
	Cooling mode for low temperature					
	SEER			143,4	154,6	157,8
	ηsc			3,79	4,07	4,15

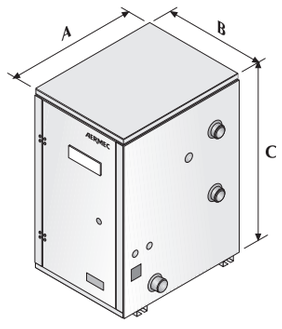
Date (14511:2013)
(1) Water system side (in/out) 12°C/7°C; Water condenser (in/out) 30°C/35°C
(2) Water system side (in/out) 45°C/50°C; Water evaporator (in/out) 10°C/7°C
(3) Efficiencies for low temperature Applications (35°C)

				20H	25H	30H
Electrical data						
230V	Total input currente (cooling)	(2)	A	10,1	11,8	13,1
	Total input currente (heating)	(2)	A	13,4	15,7	13,3
	Maximum current (FLA)	(2)	A	15	18	24
	Starting current (LRA)	(2)	A	61	76	100
Compressor						
Compressor			Type/n°	Scroll/1	Scroll/1	Scroll/1
Circuit			n°	1	1	1
Refrigerant			Type		R407C	
Heat exchanger system side						
Exchanger			Type/n°		Plate/1	
hydraulic connections (In/Out)			Type/Ø		male Gas/1"	
Heat exchanger source side						
Exchanger			Type/n°		Plate/1	
hydraulic connections (In/Out)			Type/Ø		male Gas/1"	
Sound data (cooling mode)						
Sound power level			dB(A)	56	56	57
Sound pressure level			dB(A)	48	48	49

(2) including circulator pump power consumption
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

VENICE		20H	25H	30H
A	mm	504	504	504
B	mm	404	404	404
C	mm	625	625	625
Weight	kg	103	106	109



Cod.: SVNCUY.08 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

WRL
026/161

Water cooled heat pump, reversible water side
Cooling capacity from 6,6 - 44,7 kW
Heating capacity from 7,7 - 48,3 kW

HFC
Refrigerant
R410A

Variable Multi Flow
VMF

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Programme: LCP
The products of interest can be found on the website
www.eurovent-certification.com





DISPLAY MODU_CONTROL



KSAE
External air sensor
ACCESSORY



PR3
Simplified remote panel
ACCESSORY

- **HIGH EFFICIENCIES**
- **OPTION FOR: DESUPERHEATER**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements, small dimensions, easy of installation, low noise.
Connections: The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.
Silent: The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.
Dynamic set point: Using the latest generation of electronic controller and with an external air temperature sensor "KSAE" (accessory). the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

Versions
- **WRL-°** (standard without buffer tank)
- **WRL-A** (with buffer tank)

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low electrical input
- Differential pressure switch standard (on evaporator side)
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
  The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Latest generation of electronic controller
- Control circuit board (Modu control)
- "PR3" simplified remote panel (ACCESSORY)
- Compatible with the (VMF) system except for domestic hot water production.

Accessories

- **MODU-485BL**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERSET**: The AERSET accessory allows the automatic compensation of the operating set-point of the unit to which it is connected, based on a 0-10V MODBUS input signal.
  Mandatory accessory: AER485 or MODU-485BL
- **PR3**: Simplified remote panel. Allows control of the basic unit functions and alarm notification. Remote mounted up to 150 m distance with a shielded cable.
- **VPL**: Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.

Accessory compatibility

WRL	026	031	041	051	071	081	101	141	161
MODU-485BL	•	•	•	•	•	•	•	•	•
AERSET	•	•	•	•	•	•	•	•	•
PR3	•	•	•	•	•	•	•	•	•
VPL	VPL1	VPL1	VPL2	VPL2	VPL3	VPL3	VPL4	VPL4	VPL4
KSAE	•	•	•	•	•	•	•	•	•
VT (version °)	9	9	9	9	9	9	15	15	15
VT (version A)	15	15	15	15	15	15	15A	15A	15A

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Field **Code**

1,2,3 **WRL**

4,5,6 **Size**

026-031-041-051-071-081-101-141-161

7 **Field of use**

° Standard (with leaving water down to +4 °C)

Y Low temperature (with leaving water up +4°C to -8°C)

8 **Model**

° Cooling only

E Evaporating unit (shipped with holding charge only)

9 **Version**

° Without buffer tank

A With buffer tank

10 **Heat recovery**

° Without recovery

D Desupeheater

11 **Geothermal side kit pumps version**

° Without pump

Geothermal applications

B Circulator inverter (WRL026÷081) (1)
Pumps On/Off (WRL101÷161)

U High head pump (WRL101÷161)

I Inverter pump (WRL026÷081)

Applications with bore hole water

V 2-way modulating valve

12 **System side kit pumps version**

° Without pump

P Circulator inverter (WRL026÷081) (1)
Pumps On/Off (WRL101÷161)

N High head pump (WRL101÷161)

13 **Filed not used**

°

14 **Soft-start**

° Without soft-start

S With soft-start

15 **Power supply**

° 400/3N/50Hz

M 230V/1/50Hz (WRL026÷041)

(1) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

Technical Data

WRL - °				026	031	041	026	031	041	051	071	081	101	141	161
			V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,58	8,27	11,30	6,7	8,4	11,3	14,7	19,2	21,8	29,4	38,4	43,7
	Total input power	(1)	kW	1,57	1,89	2,56	1,53	1,82	2,66	3,22	4,15	4,85	6,38	8,25	9,62
	EER	(1)		4,19	4,38	4,41	4,37	4,60	4,25	4,57	4,63	4,49	4,61	4,65	4,54
	ESEER	(1)		4,22	4,41	4,34	4,42	4,65	4,46	4,59	4,58	4,46	4,89	4,84	4,69
	Water flow rate system side	(1)	l/h	1136	1429	1954	1153	1447	1954	2539	3318	3769	5076	6635	7552
	Pressure drop	(1)	kPa	15	17	23	15	17	23	21	26	30	25	34	38
	Water flow rate geothermal side	(1)	l/h	1386	1731	2360	1396	1736	2375	3055	3979	4538	6101	7949	9079
	Pressure drop	(1)	kPa	29	30	36	28	30	36	32	40	46	42	58	67
40°C /45°C	Heating capacity	(2)	kW	7.7	9.4	12.6	7.7	9.3	12.7	16.3	21.2	24.1	32.6	42.3	48.3
	Total input power	(2)	kW	2.0	2.5	3.2	2.0	2.4	3.3	4.1	5.2	6.1	8.1	10.3	12.0
	COP	(2)		3.78	3.81	3.96	3.85	3.95	3.85	3.97	4.09	3.97	4.01	4.11	4.01
	Water flow rate system side	(2)	l/h	1320	1627	2172	1327	1608	2183	2821	3651	4163	5634	7291	8322
	Pressure drop	(2)	kPa	26	26	30	26	26	31	28	34	39	36	49	56
	Water flow rate geothermal side	(2)	l/h	1663	2054	2781	1682	2055	2770	3606	4713	5330	7208	9424	10681
	Pressure drop	(2)	kPa	32	35	46	32	34	46	42	52	60	50	68	76
	Performance under average climatic conditions (Average) (55°C) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh			10	13	16	10	12	16	21	26	31	42	53	61
	SCOP			3,75	3,83	3,75	3,73	3,83	3,98	4,00	3,98	3,95	4,58	4,53	4,38
	ηs			142	145	142	141	145	151	152	151	150	175	173	167
	Efficiency Energy Class			A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Performance under average climatic conditions (Average) (35°C) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh			11	14	17	11	14	17	23	30	35	45	60	68
	SCOP			5,15	5,50	5,18	5,08	5,45	5,38	5,50	5,48	5,33	6,03	5,85	5,50
	ηs			198	212	199	195	210	207	212	211	205	233	226	212
	Efficiency Energy Class			A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Cooling mode for low temperature														
	SEER			142,9	157	162,6	149	163,5	157,1	172,3	178,3	172,8	189,1	189	182,1
	ηsc			3,77	4,13	4,27	3,93	4,29	4,13	4,51	4,66	4,52	4,93	4,93	4,75

WRL - ABP				026	031	041	026	031	041	051	071	081	101	141	161
			V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,70	8,42	11,48	6,8	8,5	11,5	14,9	19,44	22,06	30,08	39,31	44,7
	Total input power	(1)	kW	1,37	1,66	2,27	1,33	1,58	2,37	2,96	3,84	4,52	6,27	8,13	9,44
	EER	(1)		4,89	5,07	5,06	5,11	5,39	4,84	5,03	5,06	4,88	4,80	4,84	4,74
	Water flow rate system side	(1)	l/h	1136	1429	1954	1153	1447	1954	2539	3318	3769	5076	6535	7552
	Pressure drop	(1)	kPa	78	74	60	78	74	60	74	60	50	147	163	157
	Water flow rate geothermal side	(1)	l/h	1386	1731	2360	1396	1736	2375	3055	3979	4528	6101	7949	9079
	Pressure drop	(1)	kPa	63	57	39	62	56	38	56	36	22	115	136	123
40°C /45°C	Heating capacity	(2)	kW	7.5	9.3	12.4	7.6	9.2	12.5	16.1	20.9	23.9	31.9	41.3	47.2
	Total input power	(2)	kW	1.8	2.2	2.9	1.8	2.1	3.0	3.8	4.8	5.7	8.0	10.1	11.8
	COP	(2)		4.16	4.18	4.28	4.25	4.35	4.15	4.25	4.34	4.15	3.98	4.10	4.01
	Water flow rate system side	(2)	l/h	1320	1627	2172	1327	1608	2183	2821	3651	4163	5634	7291	8322
	Pressure drop	(2)	kPa	62	58	45	62	59	44	70	53	41	129	147	137
	Water flow rate geothermal side	(2)	l/h	1663	2054	2781	1682	2055	2770	3606	4713	5330	7208	9424	10681
	Pressure drop	(2)	kPa	52	43	16	52	43	16	46	20	4	90	121	109
	Performance under average climatic conditions (Average) (55°C) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh			10	13	16	10	12	16	21	26	30	41	52	60
	SCOP			4,00	4,10	4,00	3,98	4,08	4,23	4,23	4,13	4,08	4,53	4,45	4,35
	ηs			152	156	152	151	155	161	161	157	155	173	170	166
	Efficiency Energy Class			A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Performance under average climatic conditions (Average) (35°C) UE n°811/2013 Pdesignh ≤ 70kW														
	Pdesignh			10	13	17	10	13	17	22	30	34	44	59	66
	SCOP			5,78	6,28	5,55	5,78	6,15	5,75	6,13	5,75	5,45	6,00	5,95	5,60
	ηs			223	243	214	223	238	222	237	222	210	232	230	216
	Efficiency Energy Class			A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Cooling mode for low temperature (UE n° 2016/2281)														
	SEER			181,3	200,1	200,6	191,9	206,7	200,8	207	216,7	203,8	204,2	202,7	200,5
	ηsc			4,73	5,20	5,22	5,00	5,37	5,22	5,38	5,62	5,30	5,31	5,27	5,21

WRL - E				026	031	041	026	031	041	051	071	081	101	141	161
			V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(3)	kW	6,20	7,80	10,40	6,30	7,80	10,40	13,40	17,40	19,70	26,80	34,70	39,40
	Total input power	(3)	kW	1,70	2,10	2,90	1,70	2,00	2,80	3,60	4,50	5,30	7,20	9,10	10,60
	EER	(3)		3,56	3,65	3,63	3,70	3,87	3,75	3,73	3,83	3,71	3,73	3,83	3,71
	Water flow rate system side	(3)	l/h	1070	1340	1790	1080	1340	1790	2300	2980	3390	4600	5970	6770
	Pressure drop	(3)	kPa	13	15	20	13	15	20	18	21	24	21	28	31

Data (14511:2013)

Data relating to the version with storage tank and pump "B" on geothermal side, pump "P" on utility side

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

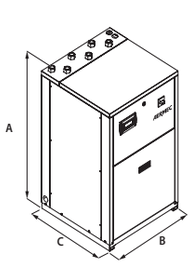
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

Technical Data

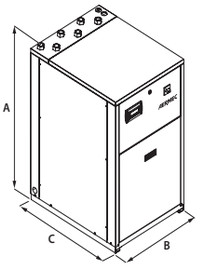
				026	031	041	051	071	081	101	141	161
Electrical data												
230V	Total input currente (cooling) ver. °	(4)	A	7,2	9,2	11,7	/	/	/	/	/	/
230V	Total input currente (cooling) ver.E	(4)	A	8,3	10,5	12,8	/	/	/	/	/	/
230V	Maximum current (FLA)	(4)	A	18	21	34	/	/	/	/	/	/
230V	Starting current (LRA)	(4)	A	63	84	119	/	/	/	/	/	/
400V	Total input currente (cooling) ver. °	(4)	A	4,2	4,5	4,9	6,4	7,4	9,1	12,8	14,8	18,2
400V	Total input currente (cooling) ver.E	(4)	A	3,4	3,2	5,4	7,2	8,3	10,2	14,3	16,6	20,5
400V	Maximum current (FLA)	(4)	A	8	8	15	17	21	22	32	40	41
400V	Starting current (LRA)	(4)	A	34	37	65	75	75	75	90	94	95
Scroll Compressor												
Compressors / Circuit			n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant			Type					R410A				
Heat exchanger system side												
Exchanger			Type/n°					Plate/1				
hydraulic connections (In/Out)			Type/Ø					F/1"¼				
Heat exchanger source side												
Exchanger			Type/n°					Plate/1				
hydraulic connections (In/Out)			Type/Ø					F/1"¼				
Sound data (cooling)												
Sound power level			dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level			dB(A)	24,0	25,8	25,3	27,7	28,7	29,2	30,6	31,6	32,1

(3) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

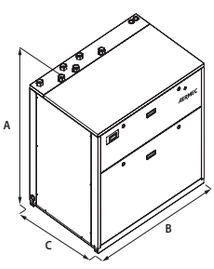
Dimensions (mm)



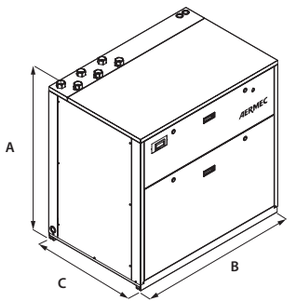
WRL 026-041



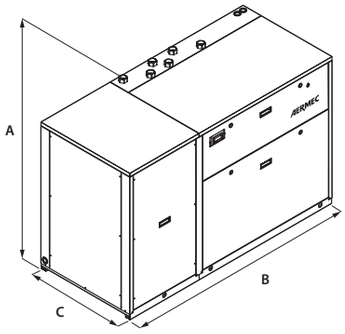
WRL 051-081



WRL 101-161



WRL-A 026-081



WRL-A 101-161

WRL °-E		026	031	041	051	071	081	101	141	161
A	mm	976	976	976	1126	1126	1126	1126	1126	1126
B	mm	605	605	605	605	605	605	1155	1155	1155
C	mm	603	603	603	773	773	773	773	773	773
Weight WRL°	kg	120	125	130	150	170	180	260	270	280
Weight WRLE	kg	110	115	125	150	150	150	245	250	250

WRL-A		026	031	041	051	071	081	101	141	161
A	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
B	mm	1155	1155	1155	1155	1155	1155	1755	1755	1755
C	mm	773	773	773	773	773	773	773	773	773
Weight *	Kg	190	200	210	230	250	260	340	350	360

* Weight with two heat exchangers and buffer tank without pumps.

Code : SWRLUY.07 / 1801

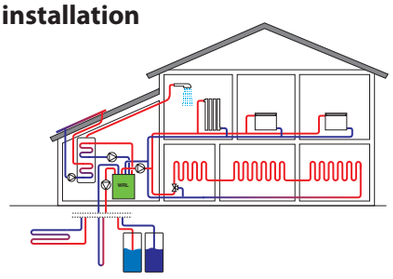
Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

AERMEC

WRL
026/161

Reversible heat pumps Water/Water for indoor installation
Scroll compressors, plate heat exchangers
Cooling capacity 6,3÷40,3kW
Heating capacity 7,9÷48,1kW



HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP, the products are present on the site www.eurovent-certification.com





TAT - TAH
ACCESSORIES



PGD1
Simplified remote panel.
ACCESSORIES

- **HIGH EFFICIENCY**
- **PRODUCTION OF HOT WATER UP TO 60 °C PRIORITY PRODUCTION OF DOMESTIC HOT WATER**
- **IDEAL FOR GEOTHERMAL APPLICATIONS**

Characteristics

The WRL water-cooled heat pumps are reversible products for the production of chilled, hot and domestic hot water. These indoor units feature hermetic scroll compressors, system side heat exchangers and source with plates, which fully meet the needs of the residential market: small size, easy installation, low noise. They can be installed in traditional systems or with radiant panels.
In the latter, by using lower water temperatures, they ensure better overall efficiency. They are particularly suitable for new low consumption buildings that mainly use renewable energy sources.
In the total recovery systems there is also the possibility to produce domestic hot water with priority both in summer and in winter. The unit is supplied with a temperature probe for a possible DHW storage tank.
The base, the structure and the panels are made of steel treated with rustproof polyester paint.

The technological choices made, always oriented to the highest quality, ensure very easy installation.
In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

Versions
WRL_H Heat pump without storage tank
WRL_HA with system storage tank
Operational limits: Operation at full power with domestic hot water for the system up to 60°C. For further details refer to the technical/selection software documentation.
- Single-circuit unit
- Water filter, differential pressure switch and water safety valve as standard on the system and source sides and on the domestic hot water side if envisaged.

- Possibility of a hydronic kit, which encloses the main hydraulic components; available in different configurations, with high or low static pressure pumps, inverter pumps and the possibility of a modulating valve for reducing consumption (source side, for groundwater applications)
- Microprocessor adjustment, with keyboard and LCD display, for easy intervention on the unit via a menu available in several languages.
  Adjusting the unit with an external air temperature probe (accessory) ensures dynamic temperature control of the water produced, increasing the energetic efficiency of the system.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET:** Le dispositif permet d'effectuer le contrôle, la gestion et le suivi à distance d'un groupe d'eau glacée avec un PC, un smartphone ou une tablette via une connexion Cloud. AERNET remplit la fonction de Master tandis que chaque unité connectée est configurée en Slave, jusqu'à un maximum de 6 unités ; avec un simple clic, il est également possible d'enregistrer, sur son propre terminal, un fichier journal contenant toutes les données des unités connectées pour d'éventuelles analyses postérieures.
- **VT:** Anti-vibration mounts.
- **TAT:** Room temperature sensor. 230 Vac recess mounted kit containing the ambient sensor with display and control knob, able to control an ON-OFF valve or a zone pump.
- **TAH:** Room temperature and humidity sensor. 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM:** Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VPHL**: Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the

water flows through both branches of the circuit.

- **VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following modes:
  - Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.
  - The unit is shipped with a temperature sensor kit for the DHW tank.
  - The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.
- **SAF:** Thermal accumulator for the instantaneous production of domestic hot water.
  Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories.

Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.

Accessory compatibility

WRL_H	026H	031H	041H	051H	071H	081H	101H	141H	161H
AER485P1	•	•	•	•	•	•	•	•	•
AERNET	•	•	•	•	•	•	•	•	•
VT (vers. H)	9	9	9	9	9	9	15	15	15
VT (vers. HA)	15	15	15	15	15	15	15A	15A	15A
TAT	•	•	•	•	•	•	•	•	•
TAH	•	•	•	•	•	•	•	•	•
SSM	•	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•	•
VPHL	VPHL1	VPHL1	VPHL2	VPHL2	VPHL3	VPHL3	VPHL4	VPHL4	VPHL4
KSAE	•	•	•	•	•	•	•	•	•
VMFCRP	•	•	•	•	•	•	•	•	•
SAF	•	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Field		Description
1,2,3		**WRL**
4,5,6		**Size**
		026-031-041-051-071-081-101-141-161
7		**Field of use**
	X	Electronic thermostatic valve (temperature of water produced up to +4 °C) for other temperatures, contact the head office.
8		**Model**
	H	Heat pumps
9		**Version**
	°	Standard
	A	With buffer tank
10		**Heat recovery**
	°	Without recovery
	T	With total recovery
11		**Geothermal side pump kit**
	°	Without pump
		Geothermal applications
	B	Circulator inverter (WRL026÷081) (1) Pump On/Off (WRL101÷161)
	U	High head pump (WRL101÷161)
	I	Inverter pump (WRL026÷081)
		Applications with bore hole water
	V	2-way modulating valve
12		**System side kit pumps version**
	°	Without pump
	P	Circulator inverter (WRL026÷081) (1) Pumps On/Off (WRL101÷161)
	N	High head pump (WRL101÷161)
13		**Heat recovery side kit pump version**
	°	Without pump
	Q	Circulator inverter (1)
14		**Soft-start**
	°	Without soft-start
	S	With soft-start
15		**Power supply**
	°	400/3N/50Hz
	M	230V/1/50Hz (WRL026÷041)
	4	230V/3/50Hz (only for sizes WRL051÷141)

(1) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

Technical Data

WRL - H				026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz		230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,28	7,88	10,30	6,28	8,08	10,40	13,7	17,7	20,2	27,5	35,3	40,3
	Total input power	(1)	kW	1,73	1,97	2,50	1,63	2,40	2,39	3,14	4,38	5,14	6,3	8,75	10,3
	EER	(1)		3,63	4,00	4,12	3,85	3,37	4,35	4,36	4,04	3,93	4,37	4,03	3,91
	ESEER	(1)		3,97	4,37	4,42	4,23	4,66	4,64	4,65	4,23	3,93	5,28	4,84	4,56
	Water flow rate system side	(1)	l/h	1086	1362	1780	1084	1396	1797	2366	3057	3490	4746	6095	6961
	Pressure drop	(1)	kPa	9	14	19	12	15	19	18	21	25	21	28	31
	Water flow rate geothermal side	(1)	l/h	1363	1678	2179	1346	1782	2179	2871	3760	4313	5763	7502	8612
	Pressure drop	(1)	kPa	22	23	30	22	23	29	29	36	41	37	48	57
40°C / 45°C	Heating capacity	(2)	kW	7,93	10,01	12,70	7,92	9,54	12,50	16,5	21,0	24,2	32,9	41,9	47,9
	Total input power	(2)	kW	2,10	2,62	3,39	2,10	2,45	3,13	4,13	5,32	6,23	8,22	10,6	12,41
	COP	(2)		3,78	3,82	3,75	3,77	3,89	3,99	4,00	3,95	3,88	4,00	3,95	3,86
	Water flow rate system side	(2)	l/h	1369	1727	2190	1367	1396	2157	2848	3625	4175	5682	7233	8265
	Pressure drop	(2)	kPa	72	65	51	20	15	28	28	32	38	35	43	51
	Water flow rate geothermal side	(2)	l/h	1722	2180	2753	1720	2091	2767	3646	4624	5306	7268	9222	10474
	Pressure drop	(2)	kPa	46	34	20	34	34	46	43	50	59	52	62	73
	Performance under average climatic conditions (Average)														
	Pdesignh	(3)		10	13	16	10	12	16	21	26	31	42	53	61
	SCOP	(3)		3,75	3,83	3,75	3,73	3,83	3,98	4,00	3,98	3,95	4,58	4,53	4,38
	ηs	(3)		142	145	142	141	145	151	152	151	150	175	173	167
	Efficiency Energy Class	(4)		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Pdesignh	(5)		11	14	17	11	14	17	23	30	35	45	60	68
	SCOP	(5)		5,15	5,50	5,18	5,08	5,45	5,38	5,50	5,48	5,33	6,03	5,85	5,50
	ηs	(5)		198	212	199	195	210	207	212	211	205	233	226	212
	Efficiency Energy Class	(4)		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Cooling mode for low temperature														
	ηsc			131,2	143,8	158,1	137,7	127,4	164,4	173,1	160,1	157,3	184,4	171,5	166,4
	SEER			3,48	3,80	4,15	3,64	3,39	4,31	4,53	4,20	4,13	4,81	4,49	4,36

WRL - HABP				026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz		230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,40	8,02	10,47	6,40	8,22	10,57	13,9	17,9	20,4	28,2	36,15	41,23
	Total input power	(1)	kW	1,55	1,76	2,23	1,44	2,16	2,12	2,90	4,08	4,82	6,21	8,68	10,17
	EER	(1)		4,13	4,56	4,70	4,44	3,81	4,99	4,79	4,39	4,24	4,53	4,16	4,05
	Water flow rate system side	(1)	l/h	1084	1361	1780	1084	1396	1797	2366	3057	3490	4746	6095	6961
	Useful head	(1)	kPa	80	76	66	81	75	66	78	68	58	154	170	164
	Water flow rate geothermal side	(1)	l/h	1363	1678	2179	1346	1782	2767	2871	3760	4313	5763	7502	8612
	Useful head	(1)	kPa	64	60	48	70	61	49	63	44	31	125	147	136
40°C / 45°C	Heating capacity	(2)	kW	7,51	9,83	12,50	7,77	9,38	12,31	16,3	20,7	23,1	32,2	40,91	46,81
	Total input power	(2)	kW	1,89	2,36	3,09	1,86	2,18	2,82	3,85	5,03	5,79	8,11	10,45	12,18
	COP	(2)		3,97	4,17	4,05	4,18	4,30	4,37	4,23	4,12	3,99	3,97	3,91	3,84
	Water flow rate system side	(2)	l/h	1321	1727	2190	1367	1648	2157	2848	3625	4028	5682	7233	8265
	Useful head	(2)	kPa	74	65	51	74	68	52	63	50	40	130	155	147
	Water flow rate geothermal side	(2)	l/h	1722	2180	2753	1720	2091	2767	3646	4624	3026	7268	9222	10474
	Useful head	(2)	kPa	46	34	20	55	48	22	33	11	72	78	118	103
	Performance under average climatic conditions (Average)														
	Pdesignh	(3)		10	13	16	10	12	16	21	26	30	41	52	60
	SCOP	(3)		4,00	4,10	4,00	3,98	4,08	4,23	4,23	4,13	4,08	4,53	4,45	4,35
	ηs	(3)		152	156	152	151	155	161	161	157	155	173	170	166
	Efficiency Energy Class	(4)		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Pdesignh	(5)		10	13	17	10	13	17	22	30	34	44	59	66
	SCOP	(5)		5,78	6,28	5,55	5,78	6,15	5,75	6,13	5,75	5,45	6,00	5,95	5,60
	ηs	(5)		223	243	214	223	238	222	237	222	210	232	230	216
	Efficiency Energy Class	(4)		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	Cooling mode for low temperature														
	ηsc			160,5	177,3	197,7	170,9	154,7	206,8	208,1	190,3	185,9	198,7	181,8	178,9
	SEER			4,21	4,63	5,14	4,47	4,07	5,37	5,40	4,96	4,85	5,17	4,75	4,67

Date (14511:2013)

Date relating to the version with storage tank and pump "B" on geothermal side, pump "P" on utility side.

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

(3) Efficiencies for low temperature Applications (35°C)

(5) Efficiencies for average temperature Applications (55°C)

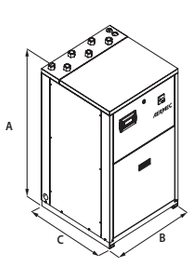
(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

Technical Data

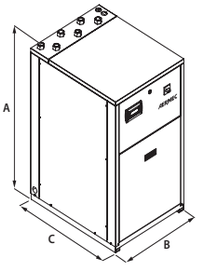
				026	031	041	051	071	081	101	141	161
Electrical data												
230V	Total input current (cooling)	(6)	A	8,5	10,8	13,5	/	/	/	/	/	/
	Total input current (heating)	(6)	A	10,5	13,1	16,6	/	/	/	/	/	/
	Maximum current (FLA)	(6)	A	18	21	34	/	/	/	/	/	/
	Starting current (LRA)	(6)	A	63	84	119	/	/	/	/	/	/
400V	Total input current (cooling)	(6)	A	4,2	3.8	5.8	7.2	9.0	10.2	13.3	16.7	19.1
	Total input current (heating)	(6)	A	4.9	4.9	6.7	8.5	10.7	12.2	16.1	20.7	23.9
	Maximum current (FLA)	(6)	A	8	8	15	17	21	22	32	40	41
	Starting current (LRA)	(6)	A	34	37	65	75	75	75	90	94	95
Scroll Compressor												
Compressors / Circuit			n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant			Type	R410A								
Heat exchanger system side												
Exchanger			Type/n°	Plate/1								
hydraulic connections (In/Out)			Type/Ø	F/1"¼								
Heat exchanger source side												
Exchanger			Type/n°	Plate/1								
hydraulic connections (In/Out)			Type/Ø	F/1"¼								
Sound data (Cooling mode)												
Sound power level			dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level			dB(A)	24,0	25,8	25,3	27,7	28,7	29,2	30,6	31,6	32,1

(6) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

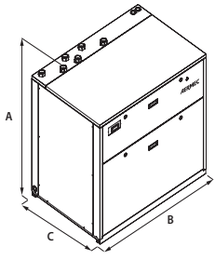
Dimensions (mm)



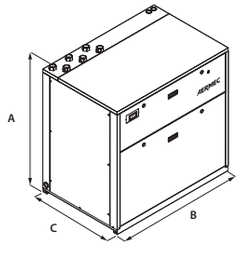
WRL 026H-041H



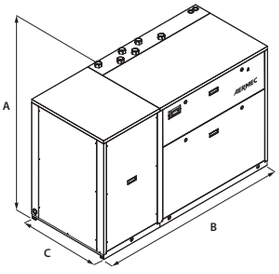
WRL 051H-081H



WRL101H-161H



WRL 026HA-081HA



WRL 101HA-161HA

WRL		026H	031H	041H	051H	071H	081H	101H	141H	161H
A	mm	976	976	976	1126	1126	1126	1126	1126	1126
B	mm	605	605	605	605	605	605	1155	1155	1155
C	mm	603	603	603	773	773	773	773	773	773
Weight	kg	120	125	130	150	170	180	260	270	280

WRL		026HA	031HA	041HA	051HA	071HA	081HA	101HA	141HA	161HA
A	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
B	mm	1155	1155	1155	1155	1155	1155	1755	1755	1755
C	mm	773	773	773	773	773	773	773	773	773
Weight *	Kg	190	200	210	230	250	260	340	350	360

* Weight with two heat exchangers and buffer tank without pumps.

Cod.: SWRLHUY.06 / 1706

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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www.aermec.com

WRL 180/650 reversible water-side

Water cooled heat pump, reversible water side
for indoor installation with scroll compressor plate exchanger
Cooling capacity 50 -168 kW
Heating capacity 56 - 188 kW

HFC Refrigerant R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec participates in the EUROVENT Programme: LCP The products of interest can be found on the website www.eurovent-certification.com







PGD1
Simplified remote panel.
ACCESSORY



TAT - TAH
terminal environment
ACCESSORY

- **HIGH EFFICIENCIES**
- **POSSIBILITY OF HAVING:**
  PARTIAL HEAT RECOVERY
  PRODUCTION OF HOT WATER UP TO 55 °C
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

High efficiency
Aermec has designed these units to optimise heat pump operation, providing high performances and low energy consumption.

Connections
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

Silent
The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

Dynamic set point
Using the latest generation of electronic controller and with an external air temperature sensor (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

Advantages
Using the latest innovative technology and focus on maximum quality gives the WRL series the maximum energy efficiency, ease of installation, and most versatile application using renewable energy sources.

Model
- **WRL_°**: Reversible water-side
- **WRL_K**: Reversible water-side with low pres sure drops system side
- **WRL_E**: Evaporating unit

Technical features
- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low electrical input
- Flow switch as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
  The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- Latest generation of electronic controller
- User-friendly remote mounted control panel with alarm notification.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.;
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **TAT:** Room temperature sensor, 230 Vac recess mounted kit containing the ambient sensor with display and control knob, able to control an ON-OFF valve or a zone pump.
- **TAH:** Room temperature and humidity sensor, 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM:** Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following modes:
  - Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.
  - The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.

WRL	180	200	300	400	500	550	600	650
AER485P1	•	•	•	•	•	•	•	•
AERNET	•	•	•	•	•	•	•	•
VT	9	9	9	9	15	15	15	15
TAT	•	•	•	•	•	•	•	•
TAH	•	•	•	•	•	•	•	•
SSM	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•
KSAE	•	•	•	•	•	•	•	•
VMFCRP	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Field	Code
1,2,3	**WRL**
4,5,6	**Size**
	180-200-300-400-500-550-600-650
7	**Filed use**
	° Standard (Standard with leaving water above +4°C)
	Y Low temperature with leaving liquid down to -8°C
	X Electronic expansion valve with leaving liquid down to +4°C (for different temperature contact us)
8	**Model**
	° Reversible water-side
	K Reversible water-side with low pressure drops system side
	E Evaporating unit (1)
9	**Version**
	° Standard
10	**Heat recovery**
	° Without heat recovery
	D Con desurriscaldatore
11	**Pumps condenser side**
	° Without pumps
	B Low static pressure pump
	U High static pressure pump
	F Low static pressure inverter pump
	I High static pressure inverter pump
	V 2-way modulating valve
	Pumps evaporator side
	° Without pumps
	P Low static pressure pump
	N High static pressure pump
12	**Field not used**
	°
13	**Soft-start**
	° Without Soft Start
	S With Soft Start
13	**Power supply**
	° 400V/3/50Hz
	5 500V/3/50Hz (2)

(1) shipped with holding charge only
(2) 500V/3/50Hz only size 400÷650

Technical data

WRL - °				180°	200°	300°	400°	500°	550°	600°	650°
12°C / 7°C	Cooling capacity	(1)	kW	50	64	74	86	100	129	150	168
	Imput power	(1)	kW	10,95	14,52	16,91	18,34	20,51	26,96	30,98	35,73
	EER	(1)		4,52	4,42	4,39	4,67	4,86	4,79	4,83	4,71
	ESEER	(1)		4,61	4,43	4,40	4,40	5,47	5,67	5,23	4,82
	Evaporator water flow rate	(1)	l/h	8559	11094	12838	14838	17205	22320	25872	29126
	Pressure drops system side	(1)	kPa	27	43	46	60	30	49	53	67
	Condenser water flow rate	(1)	l/h	10176	13210	15290	17459	20242	26265	30400	34312
	Pressure drops geothermal side	(1)	kPa	27	46	62	81	32	52	57	72
40°C / 45°C	heating capacity	(2)	kW	56.0	72.9	84.4	96.1	111.0	144.2	166.8	188.5
	Imput power	(2)	kW	13.3	17.6	20.5	22.4	24.8	32.9	37.9	43.9
	COP	(2)		4.22	4.13	4.12	4.29	4.47	4.39	4.41	4.30
	Condenser water flow rate	(2)	l/h	9695	12592	14576	16575	19217	24936	28847	32588
	Pressure drops system side	(2)	kPa	24	41	55	72	28	46	50	64
	Evaporator water flow rate	(2)	l/h	12555	16274	18833	21767	25239	32743	37953	42727
	Pressure drops geothermal side	(2)	kPa	58	93	99	129	65	105	114	144
	Cooling mode for low temperature										
	SEER			142,9	157	162,6	149	163,5	157,1	172,3	178,3
	ηsc			3,77	4,13	4,27	3,93	4,29	4,13	4,51	4,66

Date (14511:2013)
(1) Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C
(2)Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/7°C

Model WRL_E evaporating unit		180E	200E	300E	400E	500E	550E	600E	650E
Cooling capacity	kW	46,0	60,1	69,6	80,1	90,6	121,3	140,2	158,7
Imput power	kW	12,4	16,0	18,5	19,8	23,1	29,6	34,1	38,5
E.E.R.	W/W	3,7	3,8	3,8	4,1	3,9	4,1	4,1	4,1
Evaporator water flow rate	l/h	7900	10340	11980	13770	15580	20860	24110	27300
Pressure drops system side	kPa	23	39	39	56	25	42	47	57

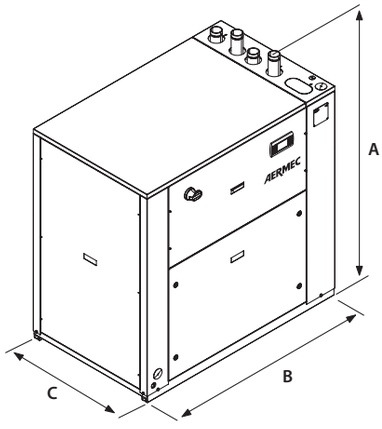
(3) Evaporator water temperature (in/out) 12°C/7°C; Condensing temperature 45°C

Technical data

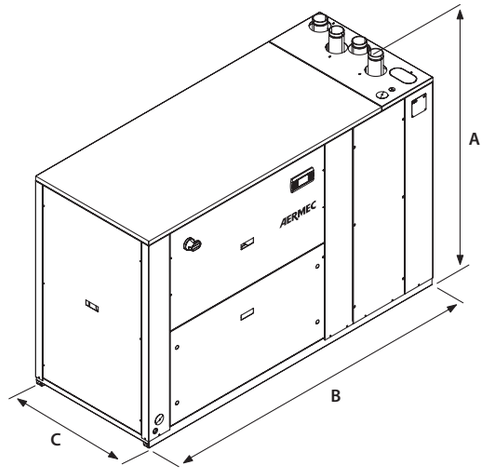
GENERAL DATA				180	200	300	400	500	550	600	650
Electrical data											
Total input current cooling mode	(4)	°	A	19,90	25,00	28,50	31,90	36,30	50,80	59,30	68,30
Total input current heating mode	(4)	°	A	22,80	29,50	32,00	35,90	41,10	57,80	66,70	76,10
Total input current cooling mode	(4)	E	A	22,9	28,5	32,4	35,6	41,8	55,8	64,8	73,9
Maximum current (FLA)			A	32	42	45	52	59	99	112	125
Starting current (LRA)			A	119	123	125	167	174	265	310	323
Compressors											
Compressors			type	Scroll							
			n°	2	2	2	2	2	2	2	2
Circuits			n°	1	1	1	1	1	1	1	1
Capacity control			%	50-100							
Refrigerant			type	R410A							
System side exchanger											
Evaporator			type	Plate							
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	2"	2"	2"	2"	2"½	2"½	2"½	2"½
Geothermal side exchanger											
Condenser			type	Plate							
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	2"	2"	2"	2"	2"½	2"½	2"½	2"½
Heat recovery side exchanger											
Desuperheater			type	Plate							
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	1"½	1"½	1"½	1"½	1"½	1"½	1"½	1"½
Hydronic kit				for more information, refer to the selection program							
Sound data											
Sound pressure			dB(A)	29,1	29,8	30,9	39,1	35,6	47,1	47,1	47,1
Sound power			dB(A)	61,1	61,8	62,9	71,1	67,6	79,1	79,1	79,1
Power supply			V/ph/Hz	400V/3/50Hz							

(4) The electrical data of the versions without hydronic module integrated
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



WRL 180-400



WRL 500-650

Model WRL			180	200	300	400	500	550	600	650
A	A	mm	1380	1380	1380	1380	1380	1380	1380	1380
B	B	mm	1320	1320	1320	1320	2060	2060	2060	2060
C	C	mm	845	845	845	845	845	845	845	845
Weight		kg	375	375	381	388	518	594	670	715

Cod.: SWRL2UY.07/ 1802

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Aermec S.p.A.
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Tel. 0442633111 - Telefax 044293577
www.aermec.com

WRL

180/650 reversible refrigerant circuit

Water cooled reversible heat pumps
for the production of hot water up to 55°C
Cooling capacity from 45 - 157kW
Heating capacity from 53 - 184kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Programme: LCP The products of interest can be found on the website www.eurovent-certification.com



PGD1
Simplified remote panel.
ACCESSORY



TAT - TAH
ACCESSORY





- **HIGH EFFICIENCIES**
- **POSSIBILITY OF HAVING:**
  PARTIAL HEAT RECOVERY
  PRODUCTION OF HOT WATER UP TO 55 °C
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

High efficiency
Aermec has designed these units to optimise heat pump operation, providing high performances and low energy consumption.

Connections
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

Silent
The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

Dynamic set point
Using the latest generation of electronic controller and with an external air temperature sensor (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

Advantages
Using the latest innovative technology and focus on maximum quality gives the WRL series the maximum energy efficiency, ease of installation, and most versatile application using renewable energy sources.

Range
Available in 8 sizes:
• Reversible refrigerant side

Version
• WRLH= Heat pump

Technical features
- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low electrical input
- Flow switch as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
  The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- Latest generation of electronic controller
- User-friendly remote mounted control panel with alarm notification.

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- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
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- **TAH:** Room temperature and humidity sensor, 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM:** Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following modes:
  - Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.
  - The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.

ACCESSORY COMPATIBILITY

WRLH	180	200	300	400	500	550	600	650
AER485P1	•	•	•	•	•	•	•	•
AERNET	•	•	•	•	•	•	•	•
VT	9	9	9	9	15	15	15	15
TAT	•	•	•	•	•	•	•	•
TAH	•	•	•	•	•	•	•	•
SSM	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•
KSAE	•	•	•	•	•	•	•	•
VMFCRP	•	•	•	•	•	•	•	•
VMFCRP	•	•	•	•	•	•	•	•

Unit configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

CODE:
WRL
SIZE:
180 - 200 - 300 - 400 - 500 - 550 - 600 - 650
FIELD OF USE:
° - Standard with leaving water above +4 °C
Y - Low temperature with leaving liquid down to -8 °C
X - Electronic expansion valve with leaving liquid down to +4°C
(for different temperature contact us)
MODEL:
H - Reversible refrigerant circuit
VERSION:
° - Standard
HEAT RECOVERY
° - Without heat recovery
D - Desuperheater
PUMPS (GEOTHERMAL SIDE)
° - Without pump
B - Low static pressure pump
U - High static pressure pump
F - Low static pressure inverter pump
I - High static pressure inverter pump
V - 2-way modulating valve

PUMPS (SYSTEM SIDE)
° - Without pump
P - Low static pressure pump
N - High static pressure pump
FIELD NOT USED
°
SOFT START
° - Without Soft Start
S - Soft Start
POWER SUPPLY
° - 400V-3N -50 Hz
5 - 500V-3-50Hz (only models WRL400-550-600-650)

Technical Data

WRL - H				180	200	300	400	500	550	600	650
12°C / 7°C	Cooling capacity	(1)	kW	45	59	65	79	93	120	140	157
	Total input power	(1)	kW	10,96	14,83	16,47	18,68	20,23	27,69	31,44	35,97
	EER	(1)		4,09	4,01	3,93	4,24	4,59	4,33	4,45	4,36
	ESEER	(1)		4,72	4,53	4,58	4,54	5,62	5,43	5,42	5,00
	Water flow rate system side	(1)	l/h	7740	10286	11180	13726	16030	20709	24166	27142
	Pressure drop	(1)	kPa	20	37	37	55	25	40	40	50
	Water flow rate geothermal side	(1)	l/h	9365	12453	13595	16419	19034	24780	28795	32405
	Pressure drop	(1)	kPa	32	55	53	76	35	58	58	73
40°C / 45°C	Heating capacity	(2)	kW	53	71	77	93	107	144	165	184
	Total input power	(2)	kW	13,04	17,76	19,11	22,57	23,98	33,06	37,16	42,60
	COP	(2)		4,08	4,01	4,03	4,13	4,46	4,37	4,44	4,33
	Water flow rate system side	(2)	l/h	9113	12175	13154	15913	18298	24705	28247	31523
	Pressure drop	(2)	kPa	30	52	49	72	32	58	56	70
	Water flow rate geothermal side	(2)	l/h	12009	16042	17343	21229	24645	33289	38175	42437
	Pressure drop	(2)	kPa	49	89	92	132	61	107	101	125
	Performance under average climatic conditions (Average) (55°C) UE n°813/2013 Pdesignh ≤ 400kW										
	Pdesignh			68	91	98	119	137	185	212	236
	SCOP			4.53	4.45	4.45	4.58	4.93	4.85	4.93	4.80
	ηs			173	170	170	175	189	186	189	184
	Cooling mode for low temperature										
	SEER			161,9	153,5	157,8	167,3	193,4	176,7	183,9	179,5
	ηsc			4,25	4,04	4,15	4,38	5,04	4,62	4,80	4,69

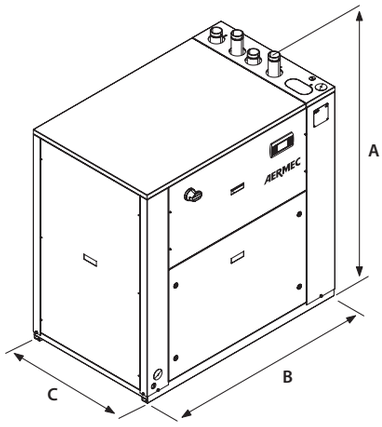
WRL-H				180	200	300	400	500	550	600	650
Useful available head	P	kPa		141	120	117	92	114	116	105	147
Syste side	N	kPa		217	195	193	169	193	247	233	210
Useful available head	B-F	kPa		126	96	95	140	172	148	133	102
geothermal side	U-I	kPa		202	173	226	194	225	213	193	158

Dati (14511:2013)
(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

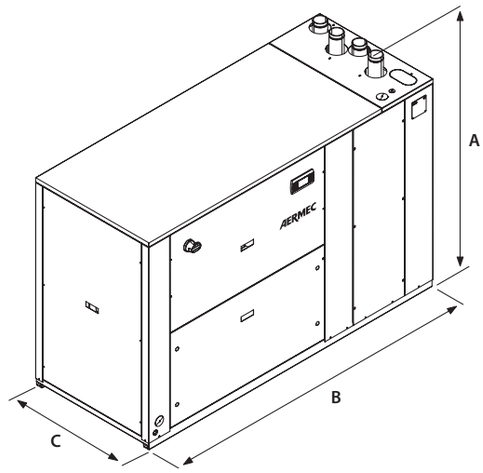
Compressor		SCROLL							
N° circuits/N° compressors		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Capacity control	%	50/100	50/100	50/100	50/100	50/100	50/100	50/100	50/100
Geothermal side heat exchanger		PLATES							
Hydraulic connections	ø	2"	2"	2"	2"	2"½	2"½	2"½	2"½
Quantity	n°	1	1	1	1	1	1	1	1
System side heat exchanger		PLATES							
Hydraulic connections	ø	2"	2"	2"	2"	2"½	2"½	2"½	2"½
Quantity	n°	1	1	1	1	1	1	1	1
Desuperheater (optional)		PLATES							
Hydraulic connections	ø	1"½	1"½	1"½	1"½	1"½	1"½	1"½	1"½
Quantity	n°	1	1	1	1	1	1	1	1
Expansion vessel (versions with pumps)		-							
Expansion vessel (per circuit)	n°/l	1/8	1/8	1/8	1/8	1/12	1/12	1/12	1/12
Sound data (Cooling mode)									
Sound power	dB(A)	61.1	61.8	62.9	71.1	67.6	79.1	79.1	79.1
Sound pressure	dB(A)	29.1	29.8	30.9	39.1	35.6	47.1	47.1	47.1

The electrical data of the versions without hydronic module integrated
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



WRLH 180-400



WRLH 500-650

WRLH Model		180	200	300	400	500	550	600	650
A	mm	1380	1380	1380	1380	1380	1380	1380	1380
B	mm	1320	1320	1320	1320	2060	2060	2060	2060
C	mm	845	845	845	845	845	845	845	845
Weight empty	kg	370	370	381	388	522	598	708	753

Code : SWRLH2UY.06 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

WRK
0200/0700
heat pump

Heat pump, reversible gas side
Water/Water for indoor installation
Scroll compressor, plate exchanger
Cooling capacity 39 - 166 kW
Heating capacity 49 - 208 kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Programme: LCP The products of interest can be found on the website www.eurovent-certification.com



- **COOLING / HEATING / PRODUCTION OF HIGH TEMPERATURE WATER ALSO FOR THE PRODUCTION OF DHW**
- **WATER PRODUCED UP TO 65°C**
- **OPTIMISED FOR HEATING IN CENTRALISED SYSTEMS**
- **INDEPENDENT FROM THE GAS NETWORK**

Characteristics

Indoor reversible water-cooled heat pump for air conditioning systems where, in addition to room cooling, **high temperature hot water is mainly required for heating and for domestic hot water. Particular attention has been given to winter operation, ensuring the production of hot water up to 65°C.**
All units are equipped with scroll compressors with steam injection and plate heat exchangers; the base and panelling are made of steel treated with polyester paints.
Immediately ready for installation, the heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators.

It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

Versions
WRK_H Standard

Construction features:
- Structure and base in hot galvanised sheet steel and with epoxy paint. (RAL 9002)
- High efficiency plate heat exchangers.
- Compressors featuring high performance and low electric absorption
- High and low pressure transducers as standard
- In compliance with Safety Directives (EC) and Standards regarding electromagnetic compatibility.

The safety of the appliance is guaranteed by the door-lock isolating switch on the electric control board and active protections on the main components.
- Command can be accessed from outdoors, with the user interface with display, showing all functioning parameters in several languages
- User-friendly remote control panel with alarm signals

Accessories

VT/AVX
Anti-vibration mounts.

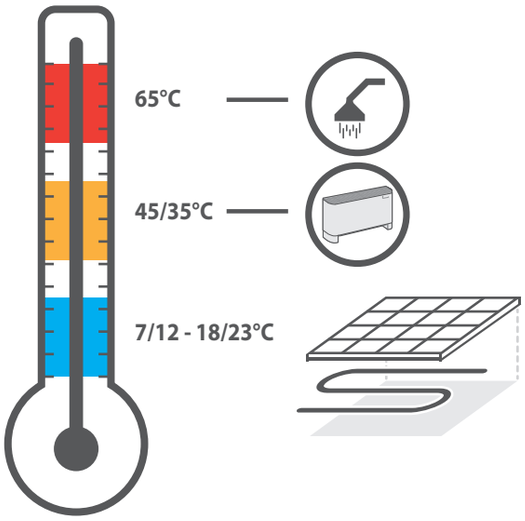
AER485P1
RS-485 interface for supervision systems with MODBUS protocol.

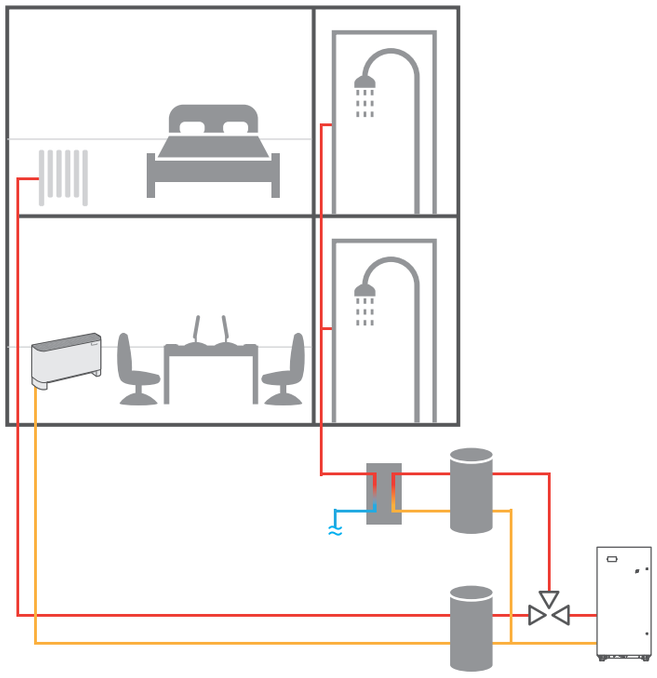
AERNET
the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection.
AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

PGD1
Simplified remote panel. Allows control of basic unit functions and alarm notification.

DRE
Electronic soft starter which reduces starting current

RIF
Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.





WRK units are used in building renovations, where centralised boilers need replacing, while maintaining the existing distribution system and terminals (e.g. radiators) at the same time, to ensure the production of domestic hot water.
This situation is typical when operating in contexts such as public buildings, but also in the case of centralised residential systems such as condominiums, where costs must be limited without changing the distribution system, while also offering a renewable energy source, represented precisely by heat pumps.
Being able to upgrade a building without involving the distribution system also eliminates the inconveniences associated with the renovation of the premises, ensuring the continuity of the property's use, saving time and money

Compatibility of accessories

WRK	Ver.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
VT/AVX	All	•	•	•	•	•	•	•	•	•	•
AER485P1	All	•	•	•	•	•	•	•	•	•	•
AERNET	All	•	•	•	•	•	•	•	•	•	•
PGD1	All	•	•	•	•	•	•	•	•	•	•
DRE	All	•	•	•	•	•	•	•	•	•	•
RIF	All	•	•	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

CODE
WRK

SIZE
200-280-300-330-350-500-550-600-650-700

FIELD OF USE
° mechanical thermostatic valve

MODEL
H Heat pump reversible gas side

VERSION
° Standard (1)
L Silenced

EVAPORATOR
° Standard

HEAT RECOVERY
° Standard
D Desuperheater

POWER SUPPLY
° 400V/3/50Hz with magnet circuit breakers

(1) Available just for sizes 0500 - 0550 - 0600 - 0650 - 0700

HYDRONIC KIT EVAPORATOR SIDE
° Without pump
M Single low head pump
N single and standby low head pump
O single high head pump
P single and standby high head pump

HYDRONIC KIT CONDENSER SIDE
° Without pump
U Single low head pump
V single and standby low head pump
W single high head pump
Z single and standby high head pump
J Single inverter low head pump
R Single and standby inverter low head pump (just for sizes 0500÷0700)
K Single inverter high head pump
Q Single and standby inverter high head pump (just for sizes 0500÷0700)

Technical Data

WRK °/L				0200*	0280*	0300*	0330*	0350*	0500	0550	0600	0650	0700
7°C /35°C	Cooling capacity	(1)	kW	38,9	54,3	64,9	74,0	83,3	96,1	110,8	129,8	145,6	165,9
	Total input power	(1)	kW	8,7	12,0	14,3	16,8	18,8	21,5	23,8	28,4	33,1	37,1
	EER	(1)	W/W	4,48	4,51	4,53	4,41	4,44	4,48	4,65	4,57	4,40	4,47
	ESEER	(1)		5,31	5,53	5,43	5,32	5,25	5,69	5,88	5,78	5,67	5,63
	Water flow rate system side	(1)	l/h	6706	9373	11198	12768	14379	16570	19103	22390	25105	28598
	Pressure drop system side	(1)	kPa	13	16	16	17	17	17	17	17	16	17
	Water flow rate source side	(1)	l/h	8076	11282	13478	15446	17380	20004	22919	26945	30427	34562
	Pressure drop source side	(1)	kPa	19	23	24	25	26	25	25	25	24	25
40°C / 45°C	Heating capacity	(2)	kW	48,5	68,7	81,6	93,4	104,0	120,7	137,6	162,9	186,9	207,7
	Total input power	(2)	kW	10,7	14,9	17,8	20,7	22,8	26,2	29,4	35,1	40,8	44,9
	COP	(2)	W/W	4,52	4,61	4,59	4,51	4,56	4,61	4,67	4,64	4,58	4,62
	Water flow rate source side	(2)	l/h	11078	15774	18711	21321	23806	27698	31664	37423	42766	47632
	Pressure drop source side	(2)	kPa	37	45	47	49	50	49	49	50	47	50
	Water flow rate system side	(2)	l/h	8310	11781	14003	16039	17855	20741	23637	27998	32124	35695
	Pressure drop system side	(2)	kPa	21	26	27	28	29	28	27	28	27	28
Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW													
	Pdesignh (35°C)			63	89	-	-	-	-	-	-	-	-
	SCOP			5,83	6,20	-	-	-	-	-	-	-	-
	ηs			225	240	-	-	-	-	-	-	-	-
	Efficiency Energy Class			A++	A++	-	-	-	-	-	-	-	-
	Pdesignh (55°C)			49	69	83	95	105	122	139	166	190	211
	SCOP			4,73	4,88	4,83	4,73	4,75	4,98	5,08	5,05	5,03	5,00
	ηs			181	187	185	181	182	191	195	194	193	192
	Efficiency Energy Class			A++	A++	-	-	-	-	-	-	-	-

WRK °/L				0200*	0280*	0300*	0330*	0350*	0500	0550	0600	0650	0700
23°C/18°C	Cooling capacity	(3)	kW	50,8	70,9	84,7	96,2	109	126,1	144,5	169,5	189,4	216,9
	Total input power	(3)	kW	8,9	11,8	14,8	17,1	19,8	21,8	23,4	29,3	33,4	39,0
	EER	(3)	W/W	5,70	6,01	5,72	5,64	5,49	5,79	6,18	5,78	5,67	5,56
	Water flow rate system side	(3)	l/h	8795	12273	14671	16661	18864	21824	25013	29335	32767	37525
	Pressure drop system side	(3)	kPa	22	27	28	29	30	29	29	29	27	29
	Water flow rate source side	(3)	l/h	10218	14152	17038	19390	22041	25321	28771	34063	38172	43835
	Pressure drop source side	(3)	kPa	30	36	38	40	41	40	39	40	38	41
30°C/35°C	Heating capacity	(4)	kW	46,0	65,7	77,3	88,3	99,4	115,4	131,6	154,4	176,8	196,4
	Total input power	(4)	kW	8,3	11,5	13,8	16,1	18,2	20,6	22,9	27,3	31,9	35,1
	COP	(4)	W/W	5,54	5,71	5,61	5,48	5,46	5,59	5,75	5,65	5,55	5,60
	Water flow rate source side	(4)	l/h	6562	9418	11043	12565	14124	16487	18901	22083	25197	28047
	Pressure drop source side	(4)	kPa	13	16	16	17	18	17	17	17	16	17
	Water flow rate system side	(4)	l/h	7939	11326	13328	15243	17144	19925	22723	26648	30529	33920
	Pressure drop system side	(4)	kPa	19	24	24	26	26	25	25	26	24	25

Dati (14511:2013)

*** The sizes 0200 - 0280 - 0300 - 0330 - 0350 are only Silenced (L)**

(1) Water system side (in/out) 12°C/7°C, Water source side (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C, Water source side (in/out) 10°C/7°C

(3) Water system side 23°C/18°C, Water source side 30°C/35°C

(4) Water system side 30°C/35°C, Water source side 10°C/5°C

(5) Efficienze in Applicazioni per bassa temperatura (35°C)

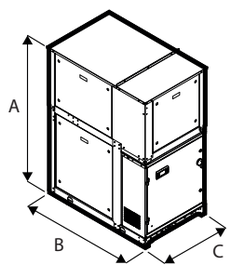
Technical Data

				0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electrical data													
Total input current (cooling)	°	A		-	-	-	-	-	48	50	62	86	89
	L			20	25	31	43	45	48	50	62	86	89
Total input current (heating)	°	A		-	-	-	-	-	52	56	69	92	95
	L			21	28	35	46	48	52	56	69	92	95
Maximum current (FLA)	°	A		-	-	-	-	-	75	84	104	130	132
	L			32	42	52	65	66	75	84	104	130	132
Starting current (LRA)	°	A		-	-	-	-	-	216	181	218	271,5	273
	L			144	139	166	206,5	207	216	181	218	271,5	273
Scroll Compressor													
Compressors		n°		2	2	2	2	2	3	4	4	4	4
Circuits		n°		2	2	2	2	2	2	2	2	2	2
Refrigerant		type		R410A									
Heat exchanger system and source side - Plate exchanger													
Exchanger		n°		1									
hydraulic connections (In/Out)		Ø		2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Sound data													
Sound pressure level	°	dB(A)		-	-	-	-	-	50	51	50	51	52
Sound power level	°	dB(A)		-	-	-	-	-	81,6	82,2	81,6	82,7	83,4
Sound pressure level	L	dB(A)		40	42	41	42	44	45	45	44	46	46
Sound power level	L	dB(A)		71,6	73,9	72,4	74,0	75,6	76,3	77,0	75,9	77,5	78,0

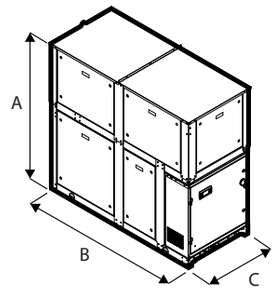
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)

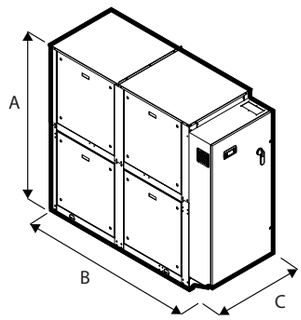
WRK 0350



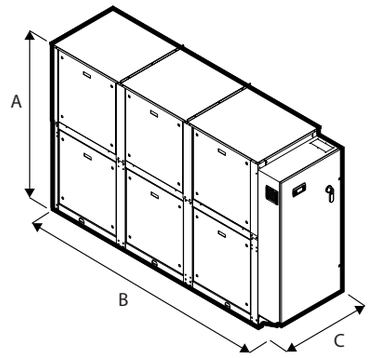
WRK 0350 (with pumps)



WRK 0700



WRK 0350 (with pumps)



WRK			Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Height	(mm)	A	°	-	-	-	-	-	1775	1775	1775	1775	1775
			L	1675	1675	1675	1675	1675	1885	1885	1885	1885	1885
Width	(mm)	B	°	-	-	-	-	-	3020	3020	3020	3020	3020
			L	1800	1800	1800	1800	1800	3020	3020	3020	3020	3020
Depth	(mm)	C	°	-	-	-	-	-	800	800	800	800	800
			L	800	800	800	800	800	800	800	800	800	800
Weigth (empty)	(kg)		°	-	-	-	-	-	740	820	840	870	900
			L	590	650	660	670	680	890	970	990	1020	1050

Cod.: SWRKUY.00/ 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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AERMEC

NEW

WWM

Heat pump with reversible water side.
Water/Water for indoor installation.
Scroll compressors, Plate exchangers.
Cooling capacity 96kW.
Heating capacity 109kW.

HFC Refrigerant R410A



- **Compact module**
- **Reliable and modular**
- **Easy and quick to install**
- **Up to 36 connectable units***
- **Max 2 levels of stackable units**
- **Single or dual refrigerant circuit**

* See the modularity options.

FEATURES

Water-water chiller for indoor installation. Suitable for air-conditioning of medium and large services in residential and commercial buildings.

- WWM consists of independent 96kW modules that can be linked together to reach a capacity of 3456kW.
- Each individual module is an independent indoor chiller for producing cooled water with high-efficiency scroll compressors and plate type heat exchangers.
- The base, structure and panelling are load-bearing elements made of galvanised steel treated with polyester anti-corrosion paints.
- With WWM, you can combine up to 36 units designed to minimise the overall dimensions.
- Thanks to its modular construction, the installation can be adapted to suit specific system development needs whilst guaranteeing improved safety and reliability. As a result, the cooling capacity can be easily increased over time, at a limited cost.
- The modules are easy to install and link together from the hydronic point of view, thanks to the connections with grooved joints.
- **Bus Bar, to facilitate the electrical connections.**
- **The WWM refrigerant circuit can easily be disconnected from the unit, maintaining all the functions of the hydronic circuit** to ensure correct system operation.
- The precise choice of components, the special configuration, and the possibility to connect several independent modules and manage them as if they were a single unit are all aspects that guarantee maximum output at full load, whilst ensuring continuous adaptation to the real service needs.
- The WWM units stand out for their quiet operation. Accurate unit sound-proofing, using good-quality sound absorbent material, means all the units work at low noise levels.
- Each unit has its own electrical panel, guaranteeing continuity even if one module malfunctions or goes into lockout.
- WWM version PN10 has the switch; WWM version PN21 mounts the transmitter.
- Fitted as standard, with butterfly shut-off valves on both hydronic lines for disconnecting the circuit when maintenance needs to be carried out.
- In the event of a variable flow rate, the motorised hydronic valves can intercept one module or more in order to reduce the flow rate when there is a low thermal load level.
- The MULTICHILLER_EVO (accessory) allows up to 9 units to be managed in parallel mode. This accessory allow to maximise the total efficency to the system under to work load, external air temperature conditions and water produced. The user panel is a 7" touch screen with ethernet inlet connections for a remote use.
- Microprocessor adjustment, complete with a keyboard and LCD screen for easily consulting the system and intervening on the unit via a multi-language menu.
- The adjustment system includes the complete management of alarms and the alarm log.
- The programming clock can be used to set operating time bands and a second set-point if required.

ACCESSORIES

ACCESSORIES:

AER485P1
RS-485 interface for supervising systems with MODBUS protocol.

AERBACP
Field bus for bacnet protocol.

AERNET
The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO
Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
* For the control with Multichiller Evo, nr.1 accessory AER485P1 is mandatory for every WWM of the system.

KWWM
The kit contains 4 caps with a diameter of 6" for the water manifolds.

ACCESSORIES MOUNTED IN THE FACTORY:

CRATE_WWM° / CRATE_WWMH-A
Special wood cover for transport.

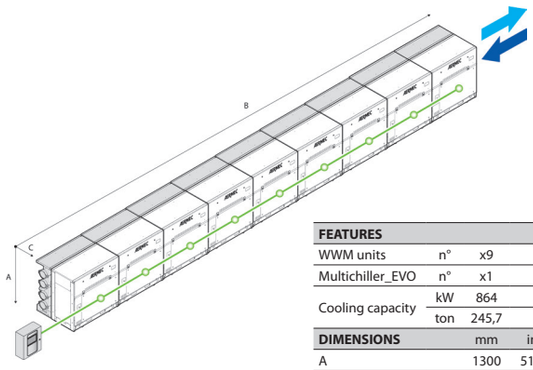
KREC_WWM
Cable entries box in order to facilitate the electrical installation.

KITIDRO_WWM
Water filter with connection pipe (diameter 6") with drain tap and additional bulb well (diameter ½") available to the installer.

WWM		0500	
Hydraulic headers kit	**Weight**	°	H
ACCESSORIES			
AER485P1		•	•
AERBACP		•	•
AERNET		•	•
MULTICHILLER_EVO		•	•
KWWM		•	•
ACCESSORIES MOUNTED IN THE FACTORY			
CRATE_WWM°	100kg	•	
CRATE_WWMH-A	130kg		•
KREC_WWM		•	•
KITIDRO_WWM		•	•

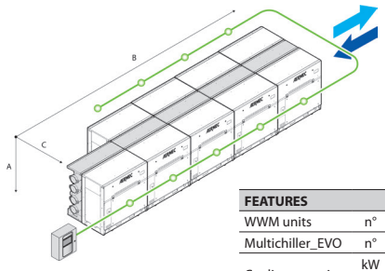
MODULARITY OPTIONS

CONFIGURATION 1: IN LINE



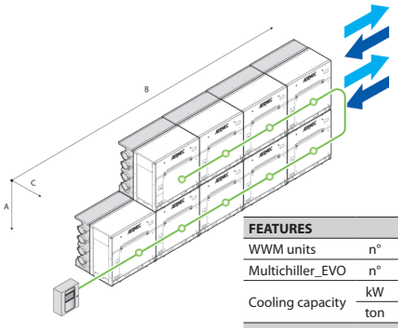
FEATURES			
WWM units	n°	x9	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	864	
	ton	245,7	
DIMENSIONS		mm	in
A		1300	51.2
B		11970	471.6
C		1150	45.3

CONFIGURATION 2: BACK TO BACK



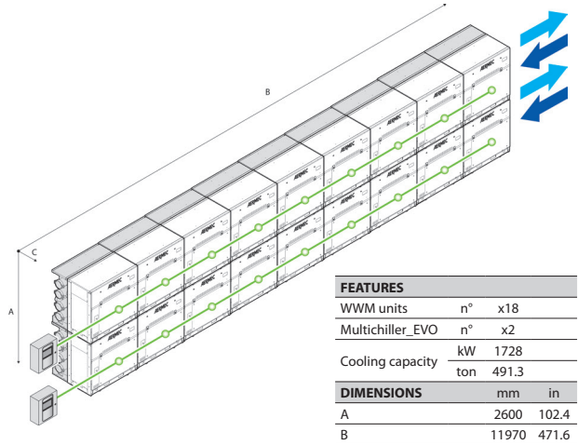
FEATURES			
WWM units	n°	x9	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	864	
	ton	245,7	
DIMENSIONS		mm	in
A		1300	51.2
B		6650	262.0
C		1850	72.9

CONFIGURATION 3.1: STACK IN LINE



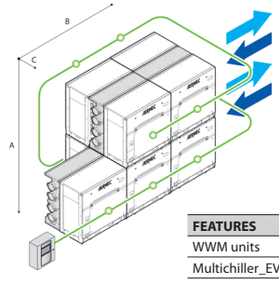
FEATURES			
WWM units	n°	x9	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	864	
	ton	245.7	
DIMENSIONS		mm	in
A		2600	102.4
B		6650	262.0
C		1150	45.3

CONFIGURATION 3.2: STACK IN LINE



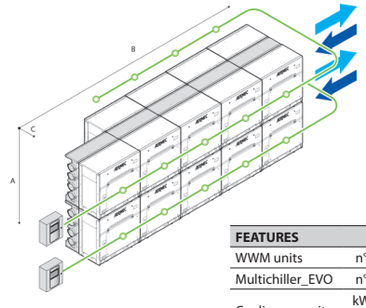
FEATURES			
WWM units	n°	x18	
Multichiller_EVO	n°	x2	
Cooling capacity	kW	1728	
	ton	491.3	
DIMENSIONS		mm	in
A		2600	102.4
B		11970	471.6
C		1150	45.3

CONFIGURATION 4.1: STACK IN LINE BACK TO BACK



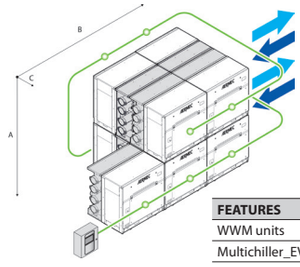
FEATURES			
WWM units	n°	x9	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	864	
	ton	245.7	
DIMENSIONS		mm	in
A		2600	102.4
B		3990	157.2
C		1850	72.9

CONFIGURATION 4.2: STACK IN LINE BACK TO BACK



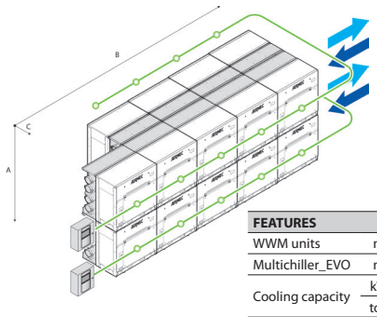
FEATURES			
WWM units	n°	x18	
Multichiller_EVO	n°	x2	
Cooling capacity	kW	1728	
	ton	491.3	
DIMENSIONS		mm	in
A		2600	102.4
B		6650	262.0
C		1850	72.9

CONFIGURATION 5.1:
STACK IN LINE BACK TO BACK DOUBLE



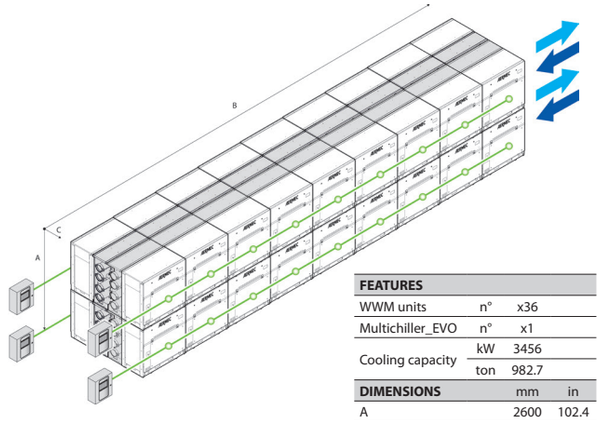
FEATURES			
WWM units	n°	x9	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	864	
	ton	245.7	
DIMENSIONS		mm	in
A		2600	102.4
B		3990	157.2
C		2300	90.6

CONFIGURATION 5.2:
STACK IN LINE BACK TO BACK DOUBLE



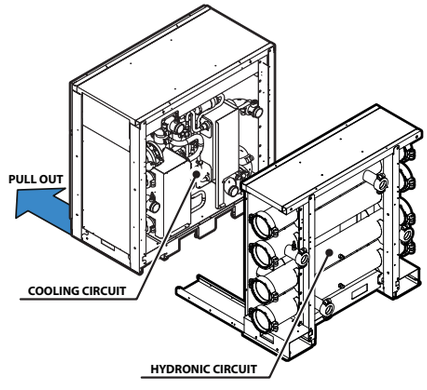
FEATURES			
WWM units	n°	x18	
Multichiller_EVO	n°	x2	
Cooling capacity	kW	1728	
	ton	491.3	
DIMENSIONS		mm	in
A		2600	102.4
B		6650	262.0
C		2300	90.6

CONFIGURATION 5.3:
STACK IN LINE BACK TO BACK DOUBLE



FEATURES			
WWM units	n°	x36	
Multichiller_EVO	n°	x1	
Cooling capacity	kW	3456	
	ton	982.7	
DIMENSIONS		mm	in
A		2600	102.4
B		11970	471.6
C		2300	90.6

EASY MAINTENANCE



UNIT CONFIGURATOR

NAME	WWM
SIZE	0500
THERMOSTATIC VALVE	
°	Standard operations (produced water down to +4°C)
MODELS	
1	Single refrigerant circuit
2	Double refrigerant circuit
HYDRAULIC PRESSURE RATING	
1	145 psi (PN10)
3	300 psi (PN21)
HYDRAULIC HEADERS KIT	
°	No headers provided
H	6" headers kit - PN21 standard carbon steel pipes declared in accordance with EN 10255
POWER CONNECTION	
°	Without bus bars
B	Bus bars
POWER SUPPLY	
°	400/3/50Hz with magnetic circuit breakers
ELECTRICAL PANEL SCCR	
°	10 kA control panel
RIF	
°	Without power factor device
R	Factory installed power factor device
BLANK NOT USED	
°	-

TECHNICAL DATA

WWM - Single refrigerant circuit "1"				0500
			V/ph/Hz	400V-3-50Hz
12°C / 7°C	Cooling capacity	(1)	kW	96
	Total power input	(1)	kW	20,4
	EER	(1)	W/W	4,70
	ESEER	(1)	W/W	6,50
	Water flow rate system side	(1)	l/h	16528
	Pressure drop system side	(1)	kPa	24
	Water flow rate geothermal side	(1)	l/h	20046
	Pressure drop geothermal side	(1)	kPa	34
40°C/45°C	Heating capacity	(2)	kW	109
	Total input power	(2)	kW	25,0
	COP	(2)	W/W	4,35
	Water flow rate system side	(2)	l/h	18849
	Total pressure drop system side	(2)	kPa	29
	Water flow rate geothermal side	(2)	l/h	24210
	Total pressure geothermal side	(2)	kPa	50
	SEER		W/W	6,12
	ηsc		W/W	237%
	SCOP		W/W	4,83
	ηs		W/W	185%
	Pdesign		kW	103

WWM - Double refrigerant circuit "2"				0500
			V/ph/Hz	400V-3-50Hz
12°C / 7°C	Cooling capacity	(1)	kW	95
	Total power input	(1)	kW	20,2
	EER	(1)	W/W	4,72
	ESEER	(1)	W/W	5,47
	Water flow rate system side	(1)	l/h	16385
	Pressure drop system side	(1)	kPa	17
	Water flow rate geothermal side	(1)	l/h	19895
	Pressure drop geothermal side	(1)	kPa	23
40°C/45°C	Heating capacity	(2)	kW	107
	Total input power	(2)	kW	24,9
	COP	(2)	W/W	4,31
	Water flow rate system side	(2)	l/h	18609
	Total pressure drop system side	(2)	kPa	20
	Water flow rate geothermal side	(2)	l/h	23824
	Total pressure geothermal side	(2)	kPa	35
	SEER		W/W	5,37
	ηsc		W/W	207%
	SCOP		W/W	4,68
	ηs		W/W	179%
	Pdesign		kW	104

Data (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C.

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C.

WWM - Single refrigerant circuit "1"			0500
	Electrical data		
400V	Total input current (cooling)	A	40
	Total input current (heating)	A	46
	Maximum current (FLA)	A	62
	Starting current (LRA)	A	149
	Scroll Compressor		
	Compressor	nr.	2
	Circuit	nr.	1
	Refrigerant gas	Type	R410A
	System side heat exchanger - Plate		
	Heat exchanger	nr.	1
	Water connection (in/out)	ø	Grooved 6"
	Geothermal side heat exchanger - Plate		
	Heat exchanger	nr.	1
	Water connection (in/out)	ø	Grooved 6"
	Sound data		
	Sound power	dB(A)	81,0
	Sound pressure	dB(A)	49,5

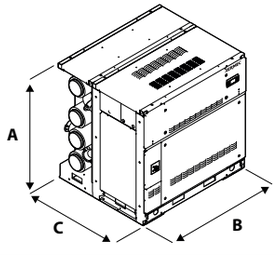
WWM - Double refrigerant circuit "2"			0500
	Electrical data		
400V	Total input current (cooling)	A	40
	Total input current (heating)	A	46
	Maximum current (FLA)	A	62
	Starting current (LRA)	A	149
	Scroll Compressor		
	Compressor	nr.	2
	Circuit	nr.	2
	Refrigerant gas	Type	R410A
	System side heat exchanger - Plate		
	Heat exchanger	nr.	1
	Water connection (in/out)	ø	Grooved 6"
	Geothermal side heat exchanger - Plate		
	Heat exchanger	nr.	1
	Water connection (in/out)	ø	Grooved 6"
	Sound data		
	Sound power	dB(A)	81,0
	Sound pressure	dB(A)	49,5

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

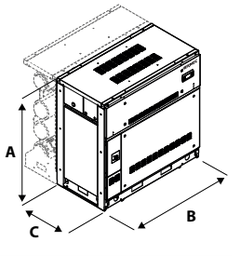
Sound pressure Sound pressure in free field, at 10m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

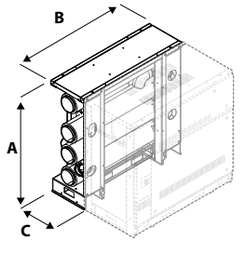
DIMENSIONS AND WEIGHT



DIMENSIONS			
WWM 0500		Vers.	0500
A	mm	H	1300
B	mm	H	1330
C	mm	H	1150
Empty weight with pallet	kg	B	966
Running weight	kg	B	1078
Empty weight with pallet	kg	H	930
Running weight	kg	H	1042



DIMENSIONS			
WWM 0500		Vers.	0500
A	mm	°	1300
B	mm	°	1330
C	mm	°	725
Empty weight with pallet	kg	B	736
Running weight	kg	B	747
Empty weight with pallet	kg	°	700
Running weight	kg	°	711



DIMENSIONS			
WWM 0500		Vers.	0500
A	mm	H	1300
B	mm	H	1330
C	mm	H	452
Empty weight with pallet	kg	H	230
Running weight	kg	H	330

Cod.: SWWMUY.02 / 1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

AERMEC

NXW
0500/1650

Heat pump reversible on the water side and Evaporating unit
Water/Water Scroll compressors
Cooling capacity 111 kW - 510 kW
Heating capacity 128 kW - 584 kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec adheres to the EUROVENT Certification Programme: LCP
The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **INSTALLATION VERSATILITY ALSO FOR GEOTHERMAL APPLICATIONS**
- **REVERSIBLE ON THE WATER IN HEAT PUMP**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**

Features

NXW is the range of water cooled that operate with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

Maximum energy efficiency
For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

Models available
NXW°: water side reversible heat pump
NXW E: Motoevaporating unit
All models are available in low noise version

Integrated hydronic module on system side/on geothermal side
The built-in hydronic module includes the main water circuit components; it is available in varius configurations with one or two pumps with high or low head both on the system side and the geothermal side.

Advanced controls
The NXW controller provides several functions:
- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

Construction details:
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)
- High efficiency plate heat exchangers
- Compressors with high performance and low electrical input
- High and low pressure transducers as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
  The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- User-friendly remote mounted control panel with alarm notification.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **PGD1:** In addition to the unit mounted controller on the NXW unit a remote mounted PGD1 panel can be supplied providing the same functions (keyboard controls and display).
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. **Factory fitted only.**
- **AVX:** spring anti-vibration mounts.
- **DRE:** Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only for 400V/3/50Hz. **Factory fitted only.**

Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	**All**	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	**All**	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	**All**	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	**All**	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX														
Water side reversible heat pump "°"	°	319	319	301	301	301	303	310	314	316	316	315	330	330
With n°1 pumps	°	320	320	320	320	320	312	651	665	653	654	654	334	337
With n°2 pumps	°	320	320	309	309	309	312	651	665	653	654	654	337	335
With n°3 pumps	°	320	320	309	309	309	312	651	665	653	654	654	340	335
With n°4 pumps	°	309	309	310	310	310	312	651	665	653	654	654	335	339
Water side reversible heat pump "L"		309	309	310	303	303	310	314	314	315	315	317	331	331
With n°1 pumps	L	321	321	311	311	651	651	652	653	654	659	659	335	338
With n°2 pumps	L	311	311	31	311	651	651	652	653	654	659	659	338	339
With n°3 pumps	L	311	311	312	312	651	651	652	653	654	659	659	339	341
With n°4 pumps	L	312	312	312	310	651	651	652	653	654	659	659	339	341
Evaporating unit "E"		319	319	301	301	301	303	310	314	316	316	315	332	332
With n°1 pumps		320	320	320	320	320	312	651	665	653	654	654	332	334
With n°2 pumps		320	320	309	309	309	312	651	665	653	654	654	332	334
With n°3 pumps		320	320	309	309	309	312	651	665	653	654	654	334	340
With n°4 pumps		309	309	310	310	310	312	651	665	653	654	654	340	340
Evaporating unit low nois versions "LE"		309	309	310	303	303	310	314	314	315	315	317	330	330
With n°1 pumps		321	321	311	311	651	651	652	653	654	659	659	336	336
With n°2 pumps		311	311	31	311	651	651	652	653	654	659	659	336	335
With n°3 pumps		311	311	312	312	651	651	652	653	654	659	659	335	339
With n°4 pumps		312	312	312	310	651	651	652	653	654	659	659	339	339
Model with total heat recovery "T"		303	303	310	310	310	314	652	315	322	322	322	331	333
Model with total heat recovery low nois versions "LT"		312	312	651	651	652	652	652	323	324	324	324	333	333
RIF	**All**	98	98	95	95	95	95	95	96	97	97	97	97	97
DRE	**All**	501	551	601	651	701	751	801	901	1001	1251	1401	1500	1650

* Contact us.

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Code:

NXW

Size:

0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650

Field of use:

° - Thermostatic expansion valve with leaving water above +4 °C
Y - Thermostatic expansion valve for low leaving liquid down to -10 °C (1)
X - Electronic thermostatic valve, max. temp. of water produced: +4°C
(for lower temperatures please contact us)

Model:

° - water side reversible heat pump

Version:

° - Standard
L - Low Noise

Evaporator:

° - Standard
E - Evaporating unit (shipped with holding charge only)

Heat recovery:

° - Without heat recovery
D - With desuperheaters (partial heat recovery)
T - With total heat recovery

Power supply:

° - 400V 3~ 50Hz with circuit breakers
4 - 220V 3~ 50Hz with circuit breakers(3)
5 - 500V 3 50Hz with circuit breakers(4)

Evaporator side pumps (5)

° - without pumps
M - low head pump
N - low head pump and standby pump
O - high head pump
P - high head pump and standby pump

Condenser side pumps (5)

° - without pumps
U - low head pump
V - low head pump and standby pump
W - high head pump
Z - high head pump and standby pump
J - low head inverter pump
K - high head inverter pump

(1) Options Y it's not available whit options "T"
(2) Options T t's not available whit evaporating unit "E"; and with hydronic kit
(3) 220V/3/50Hz only available for sizes 0500-0700
(4) 500V/3/50Hz only available for sizes 0800-1400
(5) Pump (P) not available for sizes 1500 and 1650
Pumps (V and Z) not available for size 1650

Technical Data

NXW - °/L				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
	V/ph/Hz			400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	111,6	120,5	148,4	166,3	188,2	222,0	256,9	290,7	325,0	353,9	383,8	453,0	510,2
	Total input power	(1)	kW	23,1	24,9	30,7	34,4	38,9	45,6	53,0	60,3	65,5	72,7	78,7	92,6	104,0
	EER	(1)		4,83	4,83	4,84	4,84	4,83	4,87	4,84	4,82	4,89	4,87	4,88	4,89	4,91
	ESEER	(1)		6,01	6,02	6,01	6,04	6,02	6,05	6,03	6,02	6,06	6,05	6,06	6,32	6,35
	Water flow rate user side	(1)	l/h	19234	20780	25589	28680	32458	38297	44308	50147	55986	60967	66119	78029	87900
	Pressure drop	(1)	kPa	21	25	23	28	30	33	35	39	25	25	25	25	28
	Water flow rate source side	(1)	l/h	23050	24889	30660	34337	38871	45796	52977	60083	67075	73052	79202	93388	105118
	Pressure drop	(1)	kPa	36	41	42	53	53	64	86	54	42	49	52	63	67
40°C / 45°C	Heating capacity	(2)	kW	127,9	138.1	170.4	190.9	216.1	256	294.4	333.9	372.5	405.8	440.0	518.9	584.0
	Total input power	(2)	kW	27,6	29.9	36.3	40.8	46.4	54.3	62.8	72.3	78.9	86.1	93.3	109.6	123.3
	COP	(2)		4,63	4.62	4.40	4.67	4.66	4.71	4.68	4.62	4.72	4.71	4.72	4.73	4.74
	Water flow rate user side	(2)	l/h	22166	23931	29523	33058	37425	44032	50636	57855	64586	70343	76261	89904	101179
	Pressure drop	(2)	kPa	23	27	27	35	35	35	35	36	27	32	34	42	44
	Water flow rate source side	(2)	l/h	29370	31730	39276	44021	49820	57820	47751	76972	85934	93579	101487	119769	134919
	Pressure drop	(2)	kPa	70	82	75	94	101	75	88	130	82	85	85	85	94
	Performance under average climatic conditions (Average) according to regulation n°813/2013 Pdesignh ≤ 400kW															
	Pdesignh	(3)		164	177	218	244	277	326	377	/	/	/	/	/	/
	SCOP	(3)		5,10	5,05	5,18	5,10	5,10	5,10	5,08	/	/	/	/	/	/
	ηs	(3)		196	194	199	196	196	196	195	/	/	/	/	/	/
	Cooling mode for low temperature										**(UE n° 2016/2281)**					
	SEER			212,1	226,1	223,4	222,7	225,6	224,3	212,6	5,54	6,10	6,13	6,12	5,90	6,12
	ηsc			5,50	5,85	5,79	5,77	5,84	5,81	5,52	213,5	236,0	237,3	236,9	227,9	236,9

Dati (14511:2013)
(1) Water user side (in/out) 12°C/7°C; Water sourse (in/out) 30°C/35°C
(2) Water user side (in/out) 40°C/45°C; Water source (in/out) 10°C/7°C
(3) Efficiencies for low temperature Applications (35°C)

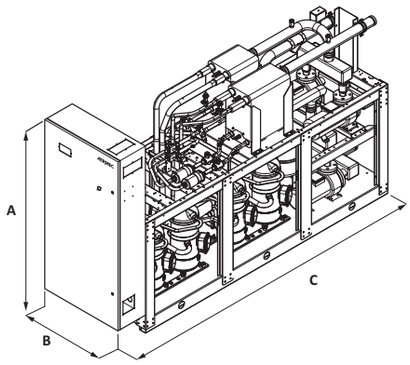
NXW - E/LE				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
12°C / 7°C	Cooling capacity	(4)	kW	105,0	113,0	139,0	156,0	177,0	209,0	241,0	273,0	305,0	332,0	360,0	425,5	478,3
	Total input power	(4)	kW	24,9	26,8	33,0	36,9	41,7	48,8	56,5	64,7	72,3	78,8	85,3	100,6	112,8
	EER	(4)		4,22	4,22	4,21	4,23	4,24	4,28	4,27	4,22	4,22	4,21	4,22	4,23	4,24
	Water flow rate system side	(4)	l/h	18031	19480	23988	26918	30381	35935	41488	46976	52463	57187	61909	73084	82141
	Pressure drop	(4)	kPa	25	27	33	37	42	49	57	65	72	79	85	31	36

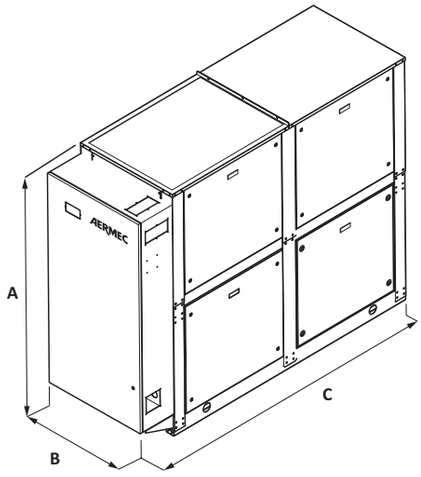
Date
(4) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data																
Total input currente (cooling)	°	(5)	A	48,3	50,6	58,4	63,0	86,0	94,0	102,0	120,0	138,0	140,0	143,0	159,6	177,5
Total input currente (heating)		(5)	A	53,3	56,2	66,0	72,0	94,0	105,0	115,0	135,0	154,0	160,0	165,0	182,6	204,9
Total input currente (cooling)	E	(5)	A	54,1	56,7	65,4	70,6	96,3	105,3	114,2	134,4	154,6	156,8	160,2	175,2	195,4
Maximum current (FLA)		(5)	A	75	80	96	107	122	146	169	193	217	231	248	267,2	296,2
Starting current (LRA)		(5)	A	240	245	227	238	289	319	341	398	422	490	504	601,4	630,4
Scroll Compressor																
Compressors / Circuit			n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A												
Heat exchanger system side																
Exchanger			Type/n°	Plate/1												
hydraulic connections (In/Out)		(5)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Heat exchanger source side																
Exchanger			Type/n°	Plate/1												
hydraulic connections (In/Out)		(5)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Connection of Evaporating unit E																
Gas line (C1+C2)			Ø	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/42	42/42	*	*
Liquid line (C1+C2)			Ø	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/35	35/35	*	*
Sound data (cooling)																
Sound power level	°		dB(A)	78	79	79	80	82	86	88	88	88	90	90	93	95
Sound pressure level			dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	61
Sound power level	L		dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	87
Sound pressure level			dB(A)	40	41	41	42	44	48	50	50	50	52	52	53	54

(5) Unit standar configuration without hydronic kit
(C1+C2) Frigorific circuit;
* Contact us
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)





		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
NXW ° / E														
A	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
Weight - °	kg	578	582	682	690	727	882	989	1180	1417	1461	1539	1613	1721
Weight - E	kg	525	530	610	619	638	796	904	1044	1260	1304	1358	1598	1679
NXW ° / E WITH PUMP														
A	mm	1775	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820	1820	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight	kg	The weight is variable depending on the chosen hydronic kit												
NXW L / LE														
A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Weight - L	kg	750	755	854	863	900	1054	1187	1378	1615	1659	1737	1811	1919
Weight - LE	kg	697	702	781	791	810	968	1104	1244	1460	1504	1558	1656	1717
NXW L / LE WITH PUMP														
A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight	kg	The weight is variable depending on the chosen hydronic kit												

Cod.: SNXW0500_1400SFUY.06/ 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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NXW H
0500/1650

Heat pump units with scroll compressors
Cooling capacity 105kW - 476kW
Heating capacity 125kW - 566kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec adheres to the EUROVENT Certification Programme: LCP
The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **HEAT PUMP WITH REFRIGERANT SIDE REVERSING FOR GEOTHERMAL APPLICATIONS**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**
- **PRODUCTION OF HOT WATER UP TO 55 °C**

Characteristics

NXW is the range of water cooled heat pumps that operate with refrigerant R410a. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

Maximum energy efficiency
For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

Models available
NXW°: water side reversible heat pump
NXWH: refrigerant side reversible heat pump

All models are available in low noise version
Integrated hydronic module on system side/ on geothermal side
The built-in hydronic module includes the main water circuit components; it is available in varius configurations with one or two pumps with high or low head both on the system side and the geothermal side.

Advanced controls
The NXW controller provides several functions:
- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

Construction details:
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)
- High efficiency plate heat exchangers
- Compressors with high performance and low electrical input
- High and low pressure transducers as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
  The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- User-friendly remote mounted control panel with alarm notification.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET :**The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **PGD1:** In addition to the unit mounted controller on the NXW unit a remote mounted PGD1 panel can be supplied providing the same functions (keyboard controls and display).
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** spring anti-vibration mounts.
- **DRE:** Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only available for 400V-3-phase power supply. Factory fitted only.

Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	All	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	All	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	All	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	All	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX														
Model "H"	°	319	319	301	301	302	310	310	314	316	315	317	330	331
With n°1 pumps	°	320	320	320	309	309	651	651	665	654	654	654	337	336
With n°2 pumps	°	320	320	303	309	311	651	651	665	654	654	654	336	335
With n°3 pumps	°	309	309	303	311	312	651	651	665	654	654	654	335	339
With n°4 pumps	°	309	309	312	312	312	651	651	665	654	654	654	335	339
Model "HL"	L	309	309	310	303	304	314	314	315	317	317	318	331	333
With n°1 pumps	L	311	311	311	311	651	652	665	653	659	659	659	338	338
With n°2 pumps	L	311	311	312	313	651	652	665	653	659	659	659	338	341
With n°3 pumps	L	312	312	312	313	651	652	665	653	659	659	659	339	341
With n°4 pumps	L	312	312	312	313	651	652	665	653	659	659	659	341	341
RIF	All	98	98	95	95	95	95	95	96	97	97	97	97	97
DRE	All	501	551	601	651	701	751	801	901	1001	1251	1401	1500	1650

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Code:

NXW

Size:

0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650

Field of use:

° - Thermostatic expansion valve with leaving water above +4 °C

X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)

Model:

H - refrigerant side reversible heat pump

Version:

° - Standard

L - Low Noise

Evaporator:

° - Standard

Heat recovery:

° - Without heat recovery

D - With desuperheaters (partial heat recovery)

Power supply:

° - 400V 3~ 50Hz with circuit breakers

4 - 220V 3~ 50Hz with circuit breakers (1)

5 - 500V 3 50Hz with circuit breakers (2)

Evaporator side pumps (3)

° - without pumps

M - low head pump

N - low head pump and standby pump

O - high head pump

P - high head pump and standby pump

Condenser side pumps (3)

° - without pumps

U - low head pump

V - low head pump and standby pump

W - high head pump

Z - high head pump and standby pump

J - low head inverter pump

K - high head inverter pump

(1) only available for sizes 0500-0700

(2) only available for sizes 0800-1000

(3) Pump (P) not available for sizes 1500 and 1650
Pumps (V and Z) not available for size 1650

Technical Data

NXW - H/HL				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
	V/ph/Hz			400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	105,7	113,7	140,6	159,5	180,5	211,3	242,1	277,3	313,3	341,2	369,1	422,9	476,2
	Total input power	(1)	kW	23,9	25,8	31,2	35,4	40,2	47,1	54,2	62,2	70,4	76,6	82,8	94,8	106,7
	EER	(1)		4,42	4,40	4,50	4,51	4,49	4,48	4,46	4,46	4,45	4,45	4,46	4,46	4,46
	ESEER	(1)		5,73	5,71	5,76	5,85	5,76	5,79	5,64	5,72	5,85	5,77	5,80	5,99	6,00
	Water flow rate system side	(1)	l/h	18204	19578	24215	27478	31084	36408	41732	47743	53925	58734	63543	72805	81991
	Pressure drop	(1)	kPa	17	20	19	24	24	29	38	24	19	22	24	29	30
	Water flow rate geothermal side	(1)	l/h	22176	23857	29406	33338	37749	44204	50642	58087	65704	71524	77344	88560	99717
	Pressure drop	(1)	kPa	25	29	28	36	36	43	56	37	28	32	34	41	44
40°C / 45°C	Heating capacity	(2)	kW	118,6	127,6	157,4	178,4	202,1	236,6	271,0	311,1	352,0	383,1	414,3	474,3	534,0
	Total input power	(2)	kW	27,5	29,6	35,3	39,8	45,3	53,0	60,5	70,3	80,1	87,0	93,8	107,1	120,5
	COP	(2)		4,31	4,31	4,46	4,48	4,46	4,47	4,48	4,42	4,40	4,41	4,42	4,43	4,43
	Water flow rate system side	(2)	l/h	16070	17283	21538	24440	27648	32383	37118	42464	47963	52240	56517	64756	72926
	Pressure drop	(2)	kPa	13	16	15	19	19	23	30	19	15	17	19	23	24
	Water flow rate geothermal side	(2)	l/h	20348	21893	27013	30618	34677	40604	46513	53385	60408	65750	71092	81387	91636
	Pressure drop	(2)	kPa	21	25	24	30	30	36	47	30	24	28	30	36	38
	Performance under average climatic conditions (Average) in according to regulation n°813/2013 Pdesignh ≤ 400kW															
	Pdesignh (55°C)	(3)		161	175	213	241	271	320	368	/	/	/	/	/	/
	SCOP	(3)		4,93	4,93	4,95	4,95	4,95	4,90	4,83	/	/	/	/	/	/
	ηs	(3)		189	189	190	190	190	188	185	/	/	/	/	/	/
	Cooling mode for low temperature										**(UE n° 2016/2281)**					
	SEER			207,5	207,0	213,1	216,1	215,1	215,8	202,8	210,8	218,8	220,5	221,9	229,3	229,3
	ηsc			5,39	5,38	5,53	5,60	5,58	5,60	5,27	5,47	5,67	5,71	5,75	5,93	5,93

Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

(3) Efficiencies for average temperature Applications (55°C)

				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data																
Total input current (cooling)	°	(4)	A	49,0	52,0	60,0	65,0	87,0	95,0	104,0	122,0	140,0	144,0	147,0	164,2	183,4
Total input current (heating)		(4)	A	53,3	56,2	65,1	71,0	92,7	105,0	115,0	133,1	151,9	157,8	162,7	182,5	203,9
Maximum current (FLA)		(4)	A	75	80	75	107	122	146	169	193	217	231	248	267	296
Starting current (LRA)		(4)	A	240	245	240	238	289	319	341	398	422	490	504	601	630
Scroll Compressor																
Compressors / Circuit			n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant			Type	R410A												
Heat exchanger system side																
Exchanger			Type/n°	Plate/1												
hydraulic connections (In/Out)		(4)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Heat exchanger source side																
Exchanger			Type/n°	Plate/1												
hydraulic connections (In/Out)		(4)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Sound data (cooling mode)																
Sound power level	°		dB(A)	78	79	79	80	82	86	88	88	88	90	90	93	95
Sound pressure level			dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	61
Sound power level	L		dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	87
Sound pressure level			dB(A)	40	41	41	42	44	48	50	50	50	52	52	53	54

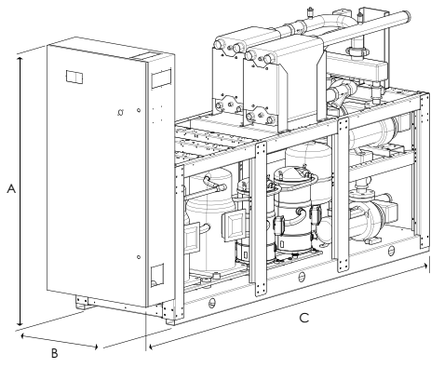
(4) Unit standar configuration without hydronic kit

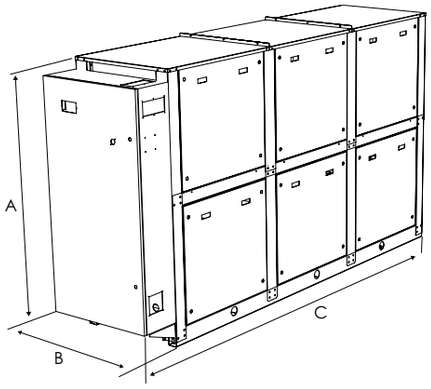
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)





		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
NXW H														
A	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
Weight	kg	628	633	734	743	791	948	1042	1275	1545	1577	1657	1687	1825
NXW H WITH PUMP														
A	mm	1775	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820	1820	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight	kg	The weight is variable depending on the chosen hydronic kit												
NXW HL														
A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Weight	kg	801	805	907	915	963	1121	1240	1473	1743	1774	1855	1885	2023
NXW HL WITH PUMP														
A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1820
B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight	kg	The weight is variable depending on the chosen hydronic kit												

Cod.: SNXWUY.11/1801

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Tel. 0442633111 - Telefax 044293577
www.aermec.com

AERMEC

WS

Water cooled heat pump, reversible water side and Evaporating unit
For indoor installation
Screw compressor and plate exchanger
Cooling capacity 148 - 699 kW
Heating capacity 165 - 781 kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Program: LCP
The products of interest can be found on the website www.eurovent-certification.com



- **HIGH EFFICIENCY ALL IN CLASS A EUROVENT**
- **OPTIMISED FOR LOW CONDENSER TEMPERATURES**
- **REVERSIBLE ON HYDRAULIC SIDE IN HEAT PUMP**
- **GEOTHERMAL APPLICATIONS**

Features

Units for internal installation offering chilled/hot water (reversible on the water side).
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. The screw compressors are optimized for low condensing temperatures, plate heat exchangers are applied on both the system and source side.
The base and frame are in steel treated with anti-corrosion polyester paint.
The technical solutions applied, aimed at maximizing efficiency and quality levels, allow EER levels of ≥ 5,05 to be achieved (class A according to Eurovent).

Versions

WS Standard reversible water side
WS_E Evaporating unit

- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.
- Unit available with total recovery / Desuperheater
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0–10 V or an external air sensor.
- Auto-adaptive differential to ensure correct compressor operating timers.
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation).

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW: ACOUSTIC KIT:** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

Accessory compatibility

Mod	Vers.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AER485P1		•	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF		-	161	161	201	241	161(x2)	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	°/L	651	651	652	652	656	658	658	658	659	667	661	661	661
AKW	L	•	•	•	•	•	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**
1,2 **WS**

3,4,5,6 **Size**
0601-0701-0801-0901-1101-1202-1402-1602-1802-2002-2202-2502-2802

7 **Field of use (1)**
- **°** Standard (temperature of water produced up to +4 °C)
- **X** Electronic thermostatic valve (temperature of water produced up to +4 °C)
- **Y** Low temperature (temperature of water produced from +4°C a -6°C)
- **Z** Low temperature electronic thermostatic valve (temperature of water produced from +4°C a -6°C)

8 **Model**
- **°** Water cooled heat pump

9 **Heat recovery (2)**
- **°** Without heat recovery
- **D** With desuperheater
- **T** With total recovery

10 **Versions**
- **°** Standard
- **L** Low noise

11 **Heat exchanger**
- **°** PED regulation
- **E** Evaporating unit (delivered with holding charge only)

12 **Power supply**
- **°** 400/3/50Hz
- **8** 400V/3/50Hz with circuit breakers
- **2** 230V/3/50Hz with fuses
- **4** 230V/3/50Hz with circuit breakers
- **5** 500V/3/50Hz with fuses
- **9** 500V/3/50Hz with circuit breakers

(1) YD / ZD contact Aermec for availability;
YT / ZT not compatible
(2) ET not compatible

Technical Data

WS - °/L				0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
		V/ph/Hz		400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1)	kW	148	187	212	234	299	308	369	421	469	545	599	653	699
	Total input power	(1)	kW	29	37	42	46	59	61	73	83	93	107	117	128	137
	EER	(1)		5,06	5,09	5,06	5,07	5,09	5,09	5,06	5,06	5,06	5,10	5,11	5,10	5,11
	ESEER	(1)		5,62	5,72	5,98	5,90	5,88	5,98	6,04	6,12	6,04	5,83	5,96	6,03	5,97
	Water flow rate system side	(1)	l/h	25421	32148	36495	40212	51430	53088	63476	72492	80788	93813	103143	112508	120438
	Pressure drop	(1)	kPa	23	17	15	16	18	33	25	27	30	33	35	39	44
	Water flow rate geothermal side	(1)	l/h	30001	37968	43166	47545	60777	62583	75000	85654	95422	110603	121544	132559	141772
	Pressure drop	(1)	kPa	33	23	22	22	25	47	36	39	43	48	52	58	65
40°C / 45°C	Heating capacity	(2)	kW	165.3	209.1	237.8	261.9	334.7	344.9	413.2	472.0	525.9	609.3	669.6	730.5	781.3
	Total input power	(2)	kW	36.8	46.3	52.8	58.1	74.1	76.8	92.1	105.4	117.5	135.3	148.6	162.6	173.9
	COP	(2)		4.50	4.52	4.50	4.51	4.52	4.49	4.49	4.48	4.47	4.50	4.50	4.49	4.49
	Water flow rate system side	(2)	l/h	28642	36257	41241	45419	58050	59725	71630	81806	91124	105557	115981	126485	135235
	Pressure drop	(2)	kPa	30	21	20	20	23	43	33	36	39	44	47	53	59
	Water flow rate geothermal side	(2)	l/h	37565	47506	53929	59422	76000	78449	93800	107124	119383	138631	152418	166257	177975
	Pressure drop	(2)	kPa	49	37	33	34	39	73	54	59	65	73	77	86	97
	Performance under average climatic conditions (Average) according to regulation n°813/2013 Pdesignh ≤ 400kW															
	Pdesignh	(3)		229	290	330	363	/	/	/	/	/	/	/	/	/
	SCOP	(3)		5,98	6,10	6,30	6,25	/	/	/	/	/	/	/	/	/
	ηs	(3)		231	236	244	242	/	/	/	/	/	/	/	/	/
	Cooling capacity with low leaving water temp							**(UE n° 2016/2281)**								
	ηsc			215,2	224,1	235,4	233,5	231,3	226,1	233,6	237,3	234,4	229,4	228,7	230,7	227,4
	SEER			5,58	5,80	6,09	6,04	5,98	5,85	6,04	6,13	6,06	5,93	5,92	5,97	5,88

Date (14511:2013)
(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C
(3) Efficiencies for low temperature Applications (35°C)

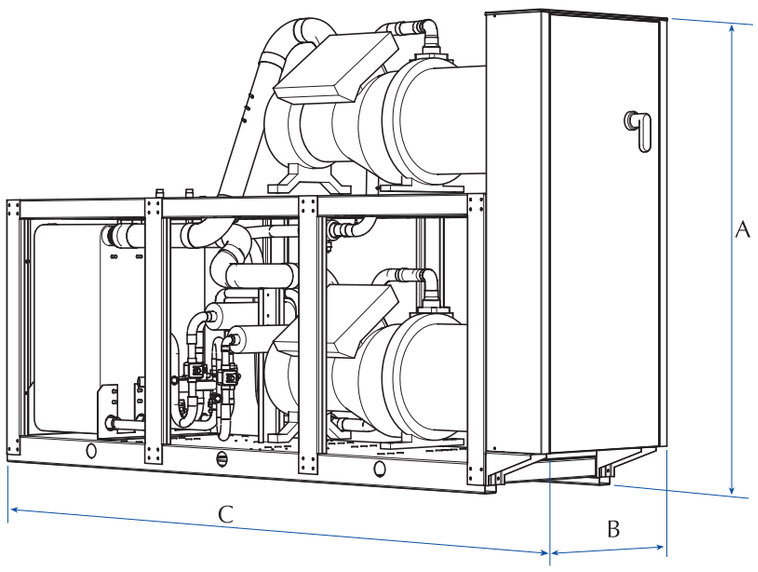
WS - E/LE				0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
12°C / 7°C	Cooling capacity	(4)	kW	134,50	167,91	189,23	216,74	264,40	276,73	333,22	380,99	431,69	489,77	542,53	591,70	629,62
	Total input power	(4)	kW	34,67	42,20	48,25	54,95	67,05	69,32	84,39	96,50	109,90	122,01	134,11	146,84	157,00
	EER	(4)		3,88	3,98	3,92	3,94	3,94	3,99	3,95	3,95	3,93	4,01	4,05	4,03	4,01
	Water flow rate system side	(4)	l/h	23108	28849	32512	37238	45428	47546	57251	65458	74169	84147	93212	101661	108175
	Pressure drop	(4)	kPa	18	13	12	12	14	25	19	20	23	25	27	30	34

(4) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

				0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electrical data																
Total input currente (cooling)	°		A	55,8	66,7	74,5	83,3	95,3	110,0	133,2	149,2	167,1	179,0	190,5	218,5	235,2
Total input currente (heating)			A	68,0	79,2	89,1	100,5	117,0	133,6	158,4	178,5	201,5	218,1	234,1	265,9	285,6
Total input currente (cooling)	E		A	63	75	85	96	111	127	151	170	192	207	222	252	270
Maximum current (FLA)			A	72	84	96	109	130	144	169	191	218	239	260	294	315
Starting current (LRA)			A	147	140	163	192	246	194,1	198	228	263	317	325	388	448
Screw Compressor																
Compressors / Circuit		n°/n°		1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type		R134a												
Heat exchanger system side																
Exchanger		Type/n°		Plate/1												
hydraulic connections (In/Out)	(4)	Type/Ø		3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side																
Exchanger		Type/n°		Plate/1												
hydraulic connections (In/Out)	(4)	Type/Ø		3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data (Cooling mode)																
Sound power level	°	dB(A)		86	87	87	88	87	89	90	90	91	90	90	91	92
Sound pressure level		dB(A)		54	55	55	56	55	57	58	58	59	59	58	59	60
Sound power level	L	dB(A)		78	79	79	80	78	81	82	82	83	82	81	83	84
Sound pressure level		dB(A)		46	47	47	48	47	49	50	50	51	50	50	51	52

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
WS °														
A	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
B	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight - °	kg	1101	1251	1301	1357	1788	1738	2072	2141	2213	2649	3051	3131	3131
WS L														
A	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
B	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight - L	kg	1229	1379	1429	1485	1934	1966	2300	2369	2441	2906	3308	3388	3388

Cod.: SWSUY.03 /1711

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

HWS

Water cooled heat pump, reversible water side and Evaporating unit
For indoor installation
Screw compressor and plate exchanger
Cooling capacity 146 - 712 kW
Heating capacity 161 - 771 kW

HFC
Refrigerant
R134a

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• REVERSIBLE ON HYDRAULIC SIDE IN HEAT PUMP
• GEOTHERMAL APPLICATIONS

Features

Units for internal installation offering chilled/hot water (reversible on the water side).
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. The screw compressors are optimized for low condensing temperatures, plate heat exchangers are applied on both the system and source side.
The base and frame are in steel treated with anti-corrosion polyester paint.

Versions
HWS Standard reversible water side
HWS_E Evaporating unit

- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0–10 V or an external air sensor.
- Auto-adaptive differential to ensure correct compressor operating timers.
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation).

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW: ACOUSTIC KIT:** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

Accessory compatibility

Mod	Vers.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AER485P1		•	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF		-	161	161	201	241	-	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	**°/L**	651	651	652	652	656	658	658	658	659	667	661	661	661
	E	-	668	668	668	669	-	670	670	670	671	672	672	672
	D	-	651	652	652	654	-	658	659	659	667	661	661	661
	DE	-	668	668	668	669	-	670	670	670	671	672	672	672
	T	-	652	655	655	657	-	662	662	662	663	664	664	664
AKW		•	•	•	•	•	•	•	•	•	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**
1,2,3 **HWS**

3,4,5,6 **Size**
0601-0701-0801-0901-1101-1202-1402-1602-1802-2002-2202-2502-2802

7 **Field of use**
° Standard (temperature of water produced up to +4 °C)
X Electronic thermostatic valve (temperature of water produced up to +4 °C) (for lower temperatures please contact us)

8 **Model**
° Water cooled heat pump

9 **Heat recovery (1)**
° Without heat recovery
D With desuperheater
T With total recovery

10 **Versions**
° Standard
L Low noise

Heat exchanger (2)
° PED regulation
E Evaporating unit (delivered with holding charge only)

11 **Power supply (3)**
° 400/3/50Hz
8 400V/3/50Hz with circuit breakers
2 230V/3/50Hz with fuses
4 230V/3/50Hz with circuit breakers
5 500V/3/50Hz with fuses
9 500V/3/50Hz with circuit breakers

(1) The desuperheater and total recovery are not available for sizes 0601 and 1202; T are not compatible with E
(2) The size 0601 and 1202 they can not be motoevaporating
(3) For size 2502 and 2802 no 230V/3/50Hz

Technical Data

HWS - °/L				0601	0701	0801	0901	1101	1202	1402
		V/ph/Hz					400V/3/50Hz			
12°C / 7°C	Cooling capacity	(1)	kW	146,4	179,0	212,0	233,0	233.0	293.0	356.0
	Total input power	(1)	kW	31,8	38,1	43,2	49,3	59.7	63.5	76.8
	EER	(1)		4,61	4,69	4,91	4,74	4.91	4.61	4.63
	ESEER			5,12	5,29	5,55	5,37	5.55	5.20	5.25
	Water flow rate system side	(1)	l/h	25284	30788	36636	40248	50568	50568	61404
	Pressure drop	(1)	kPa	29	20	20	19	23	38	36
	Water flow rate geothermal side	(1)	l/h	30268	36834	43499	48091	60045	60535	73496
	Pressure drop	(1)	kPa	40	27	27	26	31	53	50
40°C / 45°C	Heating capacity	(2)	kW	164.3	199.7	235.3	260.6	324.8	328.6	398.9
	Total input power	(2)	kW	37.9	45.4	51.5	58.7	71.3	76.2	92.1
	COP	(2)		4.33	4.40	4.57	4.44	4.56	4.31	4.33
	Water flow rate system side	(2)	l/h	28451	34618	40796	45182	56316	56903	69083
	Pressure drop	(2)	kPa	35	24	23	23	27	46	44
	Water flow rate geothermal side	(2)	l/h	37007	45063	53622	58909	74014	74014	89875
	Pressure drop	(2)	kPa	62	43	43	41	49	82	77
	Performance under average climatic conditions (Average) Efficiencies for low temperature Applications (55°C), according to regulation n°811/2013 Pdesignh ≤ 400kW									
	Pdesignh			215	257	293	330	/	/	/
	SCOP			4,55	4,60	4,73	4,58	/	/	/
	ηs			174	176	181	175	/	/	/
	Cooling capacity with low leaving water temp							**(UE n° 2016/2281)**		
	ηsc			192,5	203,3	214,9	209,3	214,6	201,0	200,3
	SEER			5,01	5,28	5,57	5,43	5,57	5,23	5,21

HWS - °/L				1602	1802	2002	2202	2502	2802
		V/ph/Hz							
40°C / 45°C	Heating capacity	(2)	kW	467.4	524.8	587.2	649.6	734.2	803.9
	Total input power	(2)	kW	103.9	121.2	133.0	144.9	165.7	181.3
	COP	(2)		4.50	4.33	4.41	4.48	4.43	4.43
	Water flow rate system side	(2)	l/h	80939	90868	101653	112438	127040	138982
	Pressure drop	(2)	kPa	48	51	54	58	65	79
	Water flow rate geothermal side	(2)	l/h	106490	118323	133176	148030	166911	183125
	Pressure drop	(2)	kPa	86	88	97	103	114	138

Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

HWS - E/LE				701	801	901	1101	1402	1602	1802	2002	2202	2502	2802
12°C / 7°C	Cooling capacity	(3)	kW	163	192	212	263	326	385	428	481	539	601	676
	Total input power	(3)	kW	41	47	54	66	82	93	108	120	132	146	159
	EER	(3)		3.98	4.09	3.93	3.98	3.98	4.14	3.96	4.00	4.08	4.12	4.25
	Water flow rate system side	(3)	l/h	28040	33020	36460	45240	56070	66220	73620	82790	92710	103370	116270
	Pressure drop	(3)	kPa	18	18	17	21	33	37	38	40	45	49	59

(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

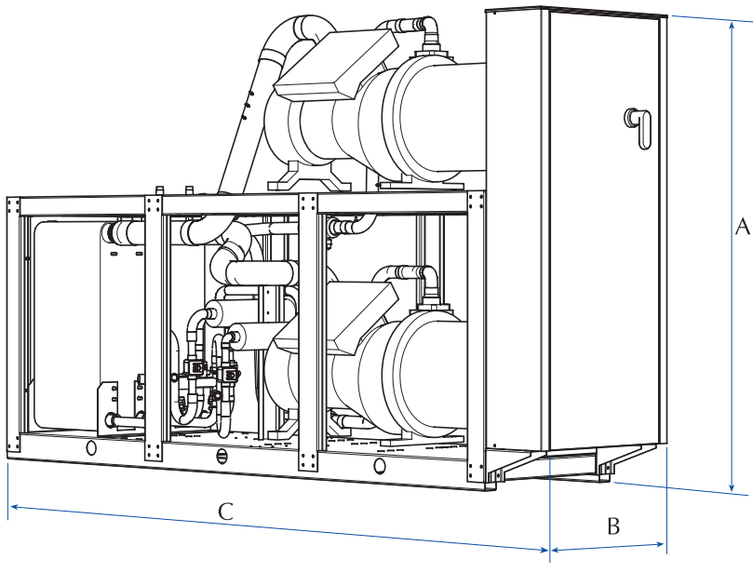
			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electrical data															
Total input current (cooling)	°	A	56	66	74	82	101	112	132	148	164	184	203	233	233
Total input current (heating)		A	67	73	82	91	117	133	146	164	183	209	235	257	258
Total input current (cooling)	E	A	/	72	81	90	113	/	144	162	180	204	226	254	272
Maximum current (FLA)		A	105	124	144	162	182	210	248	288	324	344	364	430	430
Starting current (LRA)		A	180	163	192	229	300	285	287	336	391	462	482	575	575
Screw Compressor															
Compressors / Circuit		n°/n°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type							R134a						
Heat exchanger system side															
Exchanger		Type/n°							Plate/1						
hydraulic connections (In/Out)		Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side															
Exchanger		Type/n°							Plate/1						
hydraulic connections (In/Out)		Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data															
Sound power level	°	dB(A)	85	86	86	86	92	88	89	89	89	93	95	95	95
Sound pressure level		dB(A)	53	54	54	54	60	56	57	57	57	61	63	63	63
Sound power level	L	dB(A)	77	78	78	78	84	80	81	81	81	85	87	87	87
Sound pressure level		dB(A)	45	46	46	46	52	48	49	49	49	53	55	55	55
Sound power level	E	dB(A)	/	86	86	86	92	/	89	89	89	93	95	95	95
Sound pressure level		dB(A)	/	54	54	54	60	/	57	57	57	61	63	63	63
Sound power level	LE	dB(A)	/	78	78	78	84	/	81	81	81	85	87	87	87
Sound pressure level		dB(A)	/	46	46	46	52	/	49	49	49	53	55	55	55

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



HWS (°E - L)		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
A °- E	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
A L - LE	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
B	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight	kg (°)	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095
	kg (L)	1229	1379	1429	1485	1934	1966	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	-	1479	1529	1585	2045	-	2256	2325	2397	2855	3257	3352	3352

HWS (° - L)		0601T	0701 T	0801 T	0901 T	1101 T	1202T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
A °	mm	-	2000	2000	2000	2000	-	2050	2050	2050	2050	2065	2065	2065
A L	mm	-	2120	2120	2120	2120	-	2120	2120	2120	2120	2120	2120	2120
B	mm	-	810	810	810	810	-	1250	1250	1250	1250	1250	1250	1250
C	mm	-	2960	2960	2960	3360	-	3060	3060	3060	3460	3460	3460	3460
Weight	kg	-	1479	1529	1585	2045	-	2294	2363	2435	2894	3296	3391	3391

Cod.: SHWS0601_2802_hp_UY.00/1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

WSH

Water cooled reverse cycle heat pumps with twin-rotor screw compressor
Cooling capacity 166 - 269 kW
Heating capacity 190 - 312 kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP the products are present on the site www.eurovent-certification.com



- **REFRIGERANT REVERSING VALVE**
- **OPTIONAL ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
  – COOLING DOWN TO –6 °C
  – MODULATING CAPACITY CONTROL 25–100%

Characteristics

- Manufactured with refrigerant R134a
- Versions for cooling only - heat pump with refrigerant reversing valve
- Partial heat recovery option
- Standard Version (°):
- leaving water temperature up to 55 °C in heat pump mode
- Version X:
- leaving liquid temperature down to -6 °C
- Version L:
- low noise
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Dual refrigerant circuit plate heat exchanger optimised for R134a on dual compressor units
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0–10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Compact dimensions
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **SAP:** A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **AKW:** ACOUSTIC KIT: Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

Accessory compatibility

Mod	Vers.	0701	0801	0901	1101
AERNET	-	•	•	•	•
MULTICHILLER_EVO	-	•	•	•	•
AER485P1	-	•	•	•	•
RIF	-	161	161	201	241
PRV3	-	•	•	•	•
	°/L	665	665	665	666
AVX	**D**	665	665	665	666
AKW	**L**	•	•	•	•

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Code:

WSH

Size:

0701, 0801, 0901, 1101

Expansion device:

° - Standard, minimum leaving water temperature down to +4 °C

X - With electronic expansion valve that allows:

- Leaving liquid temperature down to -6 °C
- Modulating capacity control (25 - 100%)

Model:

° - Standard

Heat recovery:

° - Without heat recovery

D - With desuperheaters (partial heat recovery)

Version:

° - Standard

L - Low noise

Condenser:

° - PED regulation

Power supply (1)

° - 400V 3~ 50Hz with fuses

8 - 400V 3~ 50Hz with circuit breakers

2 - 230V 3~ 50Hz with fuses

4 - 230V 3~ 50Hz with circuit breakers

* (not available for size 2502)

5 - 500V 3~ 50Hz with fuses

9 - 500V 3~ 50Hz with circuit breakers

(1) 230V/3/50Hz is not available for size 2502

Technical Data

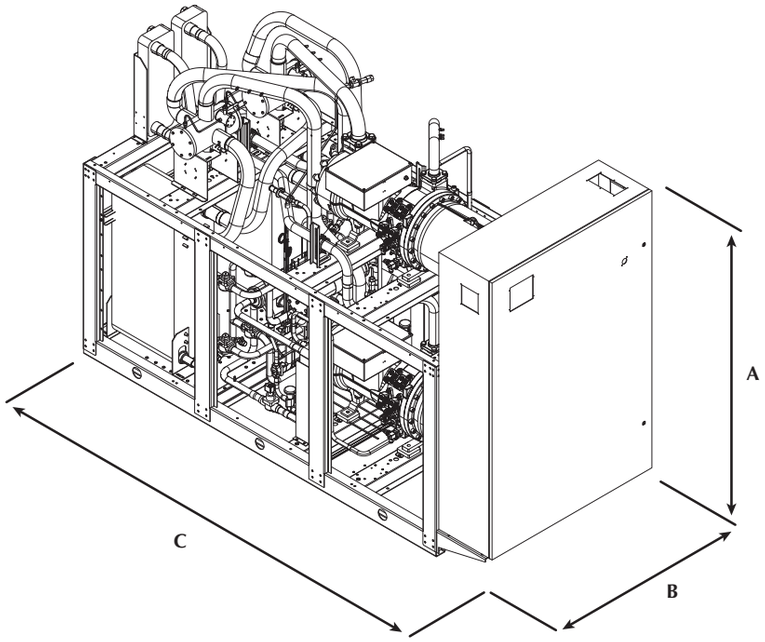
WSH - °/L				701	801	901	1101
	V/ph/Hz				400V/3/50Hz		
12°C / 7°C	Cooling capacity	(1)	kW	166	195	216	269
	Total input power	(1)	kW	37,14	42,31	48,35	58,78
	EER	(1)		4,46	4,62	4,48	4,58
	Water flow rate system side	(1)	l/h	28552	33712	37324	46440
	Pressure drop	(1)	kPa	23	24	22	27
	Water flow rate geothermal side	(1)	l/h	34434	40411	45004	55754
	Pressure drop	(1)	kPa	30	31	30	36
40°C / 45°C	Heating capacity	(2)	kW	190	218	247	312
	Total input power	(2)	kW	45,84	52,05	59,19	75,13
	COP	(2)		4,15	4,2	4,17	4,15
	Water flow rate system side	(2)	l/h	32651	37468	42286	53526
	Pressure drop	(2)	kPa	26	25	25	31
	Water flow rate geothermal side	(2)	l/h	42361	48746	54856	69480
	Pressure drop	(2)	kPa	46	46	43	55
	Performance under average climatic conditions (Average) Efficiency Energy Class in according to regulation n°813/2013 Pdesignh ≤ 400kW for average temperature Applications (55°C)						
	Pdesignh			249	285	322	/
	SCOP			4,20	4,25	4,23	/
	ηs			160	162	161	/
	Cooling capacity with low leaving water temp						**(UE n° 2016/2281)**
	ηsc			193,5	210,7	203,4	200,7
	SEER			5,04	5,47	5,29	5,22

Date (14511:2013)
(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

			701	801	901	1101
Electrical data						
Total input current (cooling)		A	65	73	80.6	100
Total input current (heating)		A	81	91	101	130.5
Maximum current (FLA)		A	124	144	162	182
Starting current (LRA)		A	163	192	229	300
Screw Compressor						
Compressors / Circuit		n°/n°	1/1	1/1	1/1	1/1
Refrigerant		Type		R134a		
Heat exchanger system side						
Exchanger		Type/n°		Plate/1		
hydraulic connections (In/Out)		Type/Ø	3"	3″	3″	3″
Heat exchanger source side						
Exchanger		Type/n°		Plate/1		
hydraulic connections (In/Out)		Type/Ø	3"	3″	3″	3″
Sound data (Cooling mode)						
Sound power level		dB(A)	86	86	86	92
Sound pressure level		dB(A)	54	54	54	60

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



Mod WSH			0701	0801	0901	1101
A	(°)	mm	1980	1980	1980	2060
	L	mm	2120	2120	2120	2120
B		mm	810	810	810	810
C		mm	2960	2960	2960	3360
Weight (empty)		kg (°)	1391	1443	1506	1946
		kg (D)	1622	1674	1737	2200

Cod.: SWSH0701_2502_hp_UY.00/1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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WF

Heats pumps,
Water/Water indoor installation
with twin-rotor screw compressor
Cooling capacity 630 - 2331kW
Heating capacity 676 - 2484kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com





• OPTIMISED FOR LOW CONDENSER TEMPERATURES

for example: units working in cooling mode with ground or tower water, or units working in heat pump mode with low leaving water temperature

• MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 50°C

• STANDARD ELECTRONIC EXPANSION VALVE

Characteristics

Version
- **WF_°** Standard chillers
- **WF_A** High efficiency version
- **Operational limits (1)**
- **condenser leaving water temperature up to 50 °C**
- evaporator leaving liquid temperature down to -6 °C

- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 50 °C (with hydraulic system reversing) and with ground water or geothermal loops. **For heating mode operation the IS accessory, condenser isolating valves, is required**
- **Options available:**
- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating valve / variable speed pump
- Electrical panel with all cables numbered
- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0–10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current**.**
- **AKW: ACOUSTIC KIT**. (**only for Versions L**) Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

Compatibility of accessories

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
Compatibility AVX													
standard / standard Low noise													
Mod WF		**2512°**	**2812°**	**3212°**	**3612°**	**4212°**	**4812°**	**5612°**	**/**	**/**	**7213°**	**8413°**	**9613°**
AVX		673	673	673	674	674	674	675	/	/	689	689	689
Mod WF		**2512°L**	**2812°L**	**3212°L**	**3612°L**	**4212°L**	**4812°L**	**5612°L**	**/**	**/**	**7213°L**	**8413°L**	**9613°L**
AVX		673	673	674	674	674	674	675	/	/	689	689	689
High efficiency/High efficiency low noise													
Mod WF		**2512A**	**2812A**	**3212A**	**3612A**	**4212A**	**4812A**	**5612A**	**6412A**	**6713A**	**7213A**	**8413A**	**9613A**
AVX		673	673	674	675	675	675	676	676	690	690	691	691
Mod WF		**2512AL**	**2812AL**	**3212AL**	**3612AL**	**4212AL**	**4812AL**	**5612AL**	**6412AL**	**6713AL**	**7213AL**	**8413AL**	**9613AL**
AVX		674	674	675	675	675	675	676	676	690	690	691	691
Accessories factory fitted only													
RIF (RIFWF)		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AKW	(1)	•	•	•	•	•	•	•	•	•	•	•	•
IS1	(2)	**°/A**	**°/A**	°	°	°	°	-	-	-	-	-	-
IS2	(2)	-	-	**A**	**A**	**A**	**A**	°	/	-	-	-	-
IS3	(2)	-	-	-	-	-	-	**A**	**A**	-	-	-	-
IS4	(2)	-	-	-	-	-	-	**A**	-	**/**	**°**	**°**	-
IS5	(2)	-	-	-	-	-	-	-	-	**A**	**A**	-	**°**
IS6	(2)	-	-	-	-	-	-	-	-	-	-	**A**	**A**

(1) The accessory is only available for the low noise version "L"
(2) For heating mode operation the IS accessory, condenser isolating valves, is required
Attention: For D - T - E version - please contact us
* Contact us

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**
1,2 **WF**
3,4,5,6 **Size**
2512-2812-3212-3612-4212-4812-5612-6412-6713-7213-8413-9613
7 **Model**
° Optimised for low condensing temperature
8 **Version**
° Standard
A High efficiency
9 **Equipment**
° Standard
L low noise
10 **Heat recovery**
° Without recovery
D With Desuperheater
T With total recovery **(3)**
11 **Evaporator**
° Standard
E Evaporating unit
12 **Power supply**
° 400V/3/50Hz with fuses
2 230V/3/50Hz with fuses
5 500V/3/50Hz with fuses **(4)**
8 400V/3/50Hz with circuit breakers
4 230V/3/50Hz cwith circuit breakers
9 500V/3/50Hz with circuit breakers **(4)**
13 **Safety valve**
° Standard
S Double safety valve

size 6412 and 6713 are only available in high efficiency version
(3) options T are not compatible with option "E"
(4) 500V/3/50Hz available only size 2512-2812

Technical Data

WF - °				2512	2812	3212	3612	4212	4812	5612	7213	8413	9613
	V/ph/Hz			400V/3/50Hz									
12°C / 7°C	Cooling capacity	(1)	kW	630	720	872	984	1111	1276	1406	1877	2085	2310
	Total input power	(1)	kW	125,06	143,21	174	194,84	219,28	253,97	280,17	375	423	468
	EER	(1)		5,04	5,03	5,01	5,05	5,06	5,02	5,02	5,00	4,93	4,94
	ESEER	(1)		5,79	5,84	5,80	5,81	5,83	5,83	5,80	6,15	6,14	6,07
	Water flow rate system side	(1)	l/h	108704	124356	150500	169764	191608	220332	242864	322561	358213	396960
	Pressure drop	(1)	kPa	41	58	56	47	43	62	65	40	49	56
	Water flow rate geothermal side	(1)	l/h	128639	147069	178115	200810	226576	260529	287309	383829	427229	473373
	Pressure drop	(1)	kPa	16	16	18	16	18	24	17	48	48	47
40°C / 45°C	Heating capacity	(2)	kW	702.8	807.3	973.3	1097	1237.7	1430.5	1577.1	2086.4	2337.4	2590.0
	Total input power	(2)	kW	155.5	177.4	216.4	242.3	272.7	314.4	347.0	471.6	526.3	583.3
	COP	(2)		4.52	4.55	4.50	4.53	4.54	4.55	4.54	4.42	4.44	4.44
	Water flow rate system side	(2)	l/h	122025	140151	168961	190459	214874	248261	273824	361659	405172	449004
	Pressure drop	(2)	kPa	14	15	16	14	16	22	15	43	43	42
	Water flow rate geothermal side	(2)	l/h	119671	110055	165684	186892	210939	194994	214935	472384	396032	439022
	Pressure drop	(2)	kPa	50	46	68	57	52	49	51	85	59	68
	Cooling capacity with low leaving water temp			**(UE n° 2016/2281)**									
	ηsc			227,3	228,7	228,4	230,7	232,4	230,5	230,7	245,4	240,2	237,5
	SEER			5,88	5,92	5,91	5,97	6,01	5,96	5,97	6,34	6,21	6,14

size 6412 and 6713 are only available in high efficiency version

WF - A				2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
	V/ph/Hz			400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1)	kW	639	725	887	1004	1132	1278	1413	1549	1704	1928	2147	2331
	Total input power	(1)	kW	120,53	137,92	168,89	188,58	213,76	239,85	269,78	298,99	324	368	413	459
	EER	(1)		5,3	5,26	5,25	5,32	5,3	5,33	5,24	5,18	5,26	5,23	5,20	5,08
	ESEER	(1)		6,26	6,22	6,26	6,26	6,29	6,27	6,16	6,10	6,50	6,49	6,36	6,33
	Water flow rate system side	(1)	l/h	110252	125216	153252	173204	195564	220504	243724	267288	292737	331296	368889	400521
	Pressure drop	(1)	kPa	44	59	62	44	62	42	41	51	36	57	58	69
	Water flow rate geothermal side	(1)	l/h	129043	146621	179396	202616	228734	257923	285881	313857	345634	391422	436221	475372
	Pressure drop	(1)	kPa	63	64	72	69	69	74	74	77	69	69	56	67
40°C / 45°C	Heating capacity	(2)	kW	700.6	800.6	978.8	1099.9	1248.5	1400.3	1553.5	1715.9	1872.3	2132.0	2377.3	2593.0
	Total input power	(2)	kW	151.3	170.5	208.7	236.5	264.3	300.3	337.6	369.4	405.0	455.6	511.0	567.7
	COP	(2)		4.63	4.70	4.70	4.65	4.72	4.66	4.60	4.64	4.62	4.68	4.65	4.57
	Water flow rate system side	(2)	l/h	121289	138599	169563	190408	216138	242375	268899	296961	324184	369172	411924	449076
	Pressure drop	(2)	kPa	56	57	64	61	62	65	65	69	61	62	50	60
	Water flow rate geothermal side	(2)	l/h	160855	137849	168714	252701	215295	321711	355589	294255	428637	366460	408042	443267
	Pressure drop	(2)	kPa	94	72	75	94	75	90	88	62	77	69	70	83
	Cooling capacity with low leaving water temp			**(UE n° 2016/2281)**											
	ηsc			238,0	236,0	238,1	241,4	241,8	243,3	239,8	246,9	250,4	247,7	245,6	242,2
	SEER			6,15	6,10	6,15	6,24	6,25	6,28	6,20	6,37	6,46	6,39	6,34	6,26

Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

WF - °E				2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
12°C / 7°C	Cooling capacity	(3)	kW	547	624	748	842	954	1077	1208	1328	1469	1679	1801	1998
	Total input power	(3)	kW	143	162	195	221	247	279	313	345	381	431	483	534
	EER	(3)		3,83	3,85	3,84	3,81	3,86	3,86	3,86	3,85	3,85	3,89	3,73	3,74
	Water flow rate system side	(3)	l/h	94084	107328	128656	144824	164088	185244	207776	228416	252463	288478	309457	343261
	Pressure drop	(3)	kPa	31	43	41	34	31	44	47	55	39	30	36	41

WF - AE				2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
12°C / 7°C	Cooling capacity	(3)	kW	585	665	800	899	1016	1148	1246	1382	1510	1710	1852	2019
	Total input power	(3)	kW	143	162	195	221	248	280	313	346	386	437	490	541
	EER	(3)		4,09	4,1	4,1	4,07	4,1	4,1	3,98	3,99	3,91	3,91	3,78	3,73
	Water flow rate system side	(3)	l/h	100620	114380	137600	154628	174752	197456	214312	237704	259397	293839	318199	346825
	Pressure drop	(3)	kPa	36	49	50	35	49	34	31	40	26	42	41	49

(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

Technical Data

			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Electrical data														
Total input current (cooling)	°	A	212	243	282	317	349	416	457	/	/	620	688	764
Total input current (heating)		A	271	312	361	406	447	533	585	/	/	751	832	919
Total input current (cooling)	A	A	202	232	268	303	332	392	437	483	615	713	792	874
Total input current (heating)		A	258	297	343	388	425	501	559	619	631	731	809	894
Total input current (cooling)	°E	A	242	277	321	363	398	465	516	/	/	712	790	873
	AE	A	242	277	321	363	398	465	516	571	615	713	792	874
Maximum current (FLA)		A	294	336	396	446	494	572	636	702	741	858	954	1053
Starting current (LRA)		A	447	528	596	659	712	872	968	1156	859	1047	1178	1376
Screw Compressor														
Compressors / Circuit		n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Refrigerant		Type	R134a											
Heat exchanger system side														
Exchanger		Type/n°	Shell&tube/1											
hydraulic connections (In/Out)	°	Ø	6"	6"	6"	8"	8"	8"	8"	/	/	10"	10"	10"
	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	10"	10"
Heat exchanger source side														
Exchanger		Type/n°	Shell&tube/2								Shell&tube/3			
hydraulic connections (In/Out)	°	Ø	5"	5"	5"	5"	5"	5"	6"	/	/	5"	5"	5"
	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"	5"	5"	6"	6"
Sound data														
Sound power level		dB(A)	62	62	62	62	63	64	65	66	96	97	99	100
Sound pressure level		dB(A)	94	94	94	94	95	96	97	98	64	65	67	67

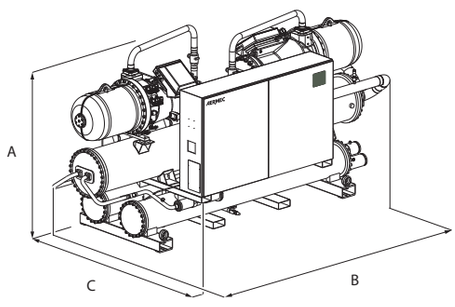
size 6412 and 6713 are only available in high efficiency version

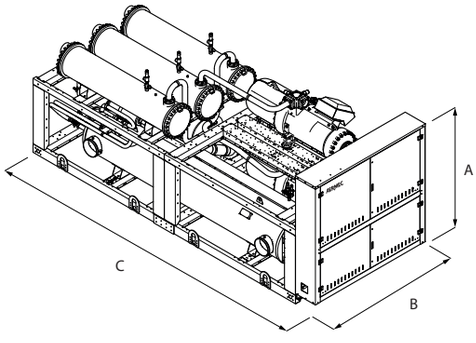
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions and Weight





Mod WF - °		**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**/**	**/**	**7213**	**8413**	**9613**
A	mm	2100	2100	2050	2120	2140	2140	2210	/	/	2225	2225	2225
B	mm	3690	3690	4030	4030	4370	4370	4610	/	/	5650	5650	5650
C	mm	1470	1470	1470	1520	1550	1550	1600	/	/	2200	2200	2200
Weight	Kg	3570	3650	4470	4750	5050	5180	6030	/	/	8145	8446	8578

Mod WF - A		**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**	**6713**	**7213**	**8413**	**9613**
A	mm	2180	2180	2190	2340	2340	2340	2380	2380	2225	2225	2225	2225
B	mm	4330	4330	4330	4370	4550	4550	4800	4800	5650	5650	5650	5650
C	mm	1470	1470	1537	1695	1695	1695	1700	1700	2200	2200	2200	2200
Weight	Kg	4080	4140	5470	5950	6240	6440	7230	7360	8893	9063	9637	9698

Attention: For D - T - E version - please contact us

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Cod.: SWF2512_9613_w_hp_ce_UY.00/ 1712

HWF

**Heats pumps,
Water/Water indoor installation
with twin-rotor screw compressor
Cooling capacity 628÷1524kW
Heating capacity 671÷1615kW**

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: LCP
the products are present on the site
www.eurovent-certification.com



- **OPTIMISED FOR HIGH CONDENSER TEMPERATURES**
  for example: units operating in heating mode
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 60°C**
- **STANDARD ELECTRONIC EXPANSION VALVE WHICH ALLOWS**

Characteristics

Version
- **HWF_°** Standard chillers
- **HWF_A** High efficiency version
- **Operational limits (1)**
- **condenser leaving water temperature up to 60 °C**
- evaporator leaving liquid temperature down to -6 °C

- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 60 °C (with hydraulic system reversing) and with dry-cooler. **For heating mode operation the IS accessory, condenser isolating valves, is required**
- **Options available:**
- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating valve / variable speed pump
- Electrical panel with all cables numbered
- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0–10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **PRV3:** Remote control of the chiller operating functions.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current**.**
- **AKW: ACOUSTIC KIT**. (**only for Versions L**) Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

Mod	Vers	2512	2812	3212	3612	4212	4812	5612
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•
					Compatibility AVX			
standard / standard Low noise								
Mod HWF		2512°	2812°	3212°	3612°	4212°	4812°	5612°
AVX		673	673	673	674	674	674	675
Mod HWF		2512°L	2812°L	3212°L	3612°L	4212°L	4812°L	5612°L
AVX		673	673	674	674	674	674	675
High efficiency/High efficiency low noise								
Mod HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A
AVX		673	673	674	675	675	675	676
Mod HWF		2512AL	2812AL	3212AL	3612AL	4212AL	4812AL	5612AL
AVX		674	674	675	675	675	675	676
Accessories factory fitted only								
RIF		RIFHWF2512	RIFHWF2812	RIFHWF3212	RIFHWF3612	RIFHWF4212	RIFHWF4812	RIFHWF5602
AKW	(1)	•	•	•	•	•	•	•
IS1	(2)	°/A	°/A	°	°	°	°	
IS2	(2)			A	A	A	A	°
IS3	(2)							A

(1) The accessory is only available for the low noise version "L"
(2) For heating mode operation the IS accessory, condenser isolating valves, is required
Attention: For D - T - E version - please contact us

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	**HWF**
4,5,6,7	**Size**
	2512-2812-3212-3612-4212-4812-5612
8	**Model**
	° Optimised for high condensing temperature
9	**Version**
	° Standard
	A High efficiency
10	**Equipment**
	° Standard
	L low noise
11	**Heat recovery**
	° Without recovery
	D With Desuperheater
	T With total recovery **(3)**
12	**Evaporator**
	° Standard
	E Evaporating unit
13	**Power supply**
	° 400V/3/50Hz with fuses
	8 400V/3/50Hz with circuit breakers
	5 500V/3/50Hz with fuses **(4)**
	9 500V/3/50Hz with circuit breakers **(4)**

(3) options T are not compatible with option "E"
(4) 500V/3/50Hz available only size 2512-2812

Technical Data

HWF - °				2512	2812	3212	3612	4212	4812	5612
	V/ph/Hz						400V/3/50Hz			
12°C / 7°C	Cooling capacity	(1)	kW	628	713	843	946	1092	1256	1415
	Total input power	(1)	kW	130,1	148,1	173,6	195,4	225	259,6	294,3
	EER	(1)		4,83	4,81	4,85	4,84	4,85	4,84	4,81
	ESEER	(1)		5,50	5,52	5,56	5,51	5,52	5,55	5,51
	Water flow rate system side	(1)	l/h	108360	123152	145512	163228	188340	216892	244412
	Pressure drop	(1)	kPa	41	56	53	44	41	60	65
	Water flow rate geothermal side	(1)	l/h	129112	146682	173127	194437	224288	258069	291144
	Pressure drop	(1)	kPa	16	16	17	15	17	23	18
40°C / 45°C	Heating capacity	(2)	kW	702.8	802.2	942.0	1058.2	1220.7	1404.7	1592.3
	Total input power	(2)	kW	155.0	175.9	207.0	233.0	268.1	309.4	349.4
	COP	(2)		4.53	4.56	4.55	4.54	4.55	4.54	4.56
	Water flow rate system side	(2)	l/h	122013	139271	163542	183734	211925	243787	276446
	Pressure drop	(2)	kPa	14	14	15	13	15	21	16
	Water flow rate geothermal side	(2)	l/h	119765	109422	160828	180409	208164	239721	217163
	Pressure drop	(2)	kPa	50	44	65	54	50	73	51
	Cooling capacity with low leaving water temp (UE n° 2016/2281)									
	ηsc			227,3	227,8	228,9	229,7	228,2	229,7	230,4
	SEER			5,88	5,90	5,92	5,94	5,91	5,94	5,96

HWF - A				2512	2812	3212	3612	4212	4812	5612
	V/ph/Hz						400V/3/50Hz			
12°C / 7°C	Cooling capacity	(1)	kW	643	730	855	966	1108	1249	1435
	Total input power	(1)	kW	128,7	147,1	172,1	193	222,3	249,4	287,4
	EER	(1)		5,00	4,96	4,96	5,01	4,98	5,01	4,99
	ESEER	(1)		5,82	5,81	5,80	5,81	5,82	5,82	5,80
	Water flow rate system side	(1)	l/h	110940	126076	147576	166668	191264	215516	247508
	Pressure drop	(1)	kPa	44	60	57	41	59	40	42
	Water flow rate geothermal side	(1)	l/h	131038	148952	174374	196897	225905	254569	292443
	Pressure drop	(1)	kPa	65	66	68	66	67	72	77
40°C / 45°C	Heating capacity	(2)	kW	709.7	811.3	949.8	1066.3	1230.1	1378.7	1593.2
	Total input power	(2)	kW	154.9	174.5	204.1	231.9	263.6	299.3	340.4
	COP	(2)		4.58	4.65	4.65	4.60	4.67	4.61	4.68
	Water flow rate system side	(2)	l/h	122851	140432	160405	184604	212967	238666	275723
	Pressure drop	(2)	kPa	57	59	60	58	60	63	68
	Water flow rate geothermal side	(2)	l/h	162501	139346	163109	244129	211396	315680	273560
	Pressure drop	(2)	kPa	94	73	70	88	72	86	51
	Cooling capacity with low leaving water temp (UE n° 2016/2281)									
	ηsc			231,6	230,7	231,9	233,8	232,2	234,4	235,7
	SEER			5,99	5,97	6,00	6,05	6,01	6,06	6,09

Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

HWF - °E				2512	2812	3212	3612	4212	4812	5612	6412
12°C / 7°C	Cooling capacity	(3)	kW	540	615	726	816	947	1070	1225	1311
	Total input power	(3)	kW	141	161	189	212	246	278	318	340
	EER	(3)		3,83	3,82	3,84	3,85	3,85	3,85	3,85	3,86
	Water flow rate system side	(3)	l/h	92883	105773	124872	140352	162884	184040	210700	225492
	Pressure drop	(3)	kPa	30	42	39	32	31	44	49	54

HWF - AE				2512	2812	3212	3612	4212	4812	5612	6412
12°C / 7°C	Cooling capacity	(3)	kW	577	657	779	873	1012	1143	1263	1362
	Total input power	(3)	kW	143	162	191	214	248	280	320	342
	EER	(3)		4,03	4,06	4,08	4,08	4,08	4,08	3,95	3,98
	Water flow rate system side	(3)	l/h	99244	113004	133988	150156	174064	196596	217236	234264
	Pressure drop	(3)	kPa	35	48	47	33	49	34	32	39

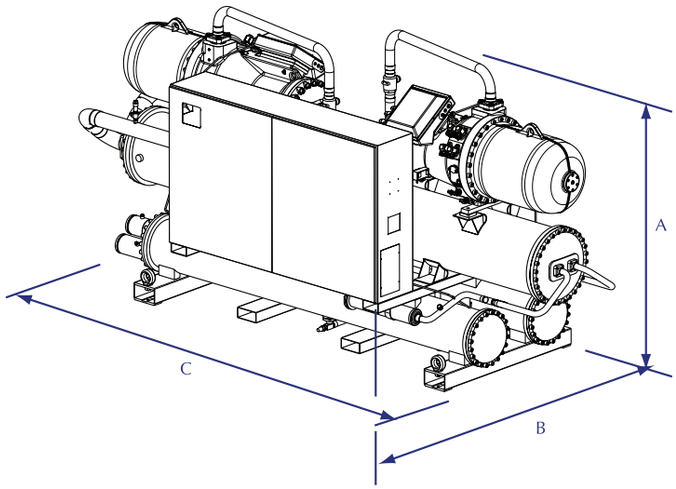
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

Technical Data

			2512	2812	3212	3612	4212	4812	5612
Electrical data									
Total input current (cooling)	°	A	226	255	286	314	378	426	488
Total input current (heating)		A	267	300	337	371	446	503	575
Total input current (cooling)	A	A	221	249	278	306	367	408	471
Total input current (heating)		A	261	293	328	361	433	481	556
Total input current (cooling)	°E/AE	A	247	278	315	345	416	465	532
Maximum current (FLA)		A	370	418	468	516	612	690	776
Starting current (LRA)		A	545	613	670	723	892	995	1193
Screw Compressor									
Compressors / Circuit		n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type				R134a			
Heat exchanger system side									
Exchanger		Type/n°				Shell&tube/1			
hydraulic connections (In/Out)	°	Ø	6"	6"	6"	8"	8"	8"	8"
	A	Ø	8"	8"	8"	10"	10"	10"	10"
Heat exchanger source side									
Exchanger		Type/n°				Shell&tube/2			
hydraulic connections (In/Out)	°	Ø	5"	5"	5"	5"	5"	5"	6"
	A	Ø	4"	4"	5"	5"	5"	5"	6"
Sound data									
Sound power level		dB(A)	94	94	94	94	95	96	97
Sound pressure level		dB(A)	62	62	62	62	63	64	65

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions and Weight



Mod HWF		**2512°**	**2812°**	**3212°**	**3612°**	**4212°**	**4812°**	**5612°**
A	mm	2100	2100	2050	2120	2140	2140	2210
B	mm	1470	1470	1470	1520	1550	1550	1600
C	mm	3690	3690	4030	4030	4370	4370	4610
Weight	Kg	3570	3650	4470	4750	5100	5200	6110
Mod HWF		**2512A**	**2812A**	**3212A**	**3612A**	**4212A**	**4812A**	**5612A**
A	mm	2180	2180	2190	2340	2340	2340	2380
B	mm	1470	1470	1537	1695	1695	1695	1700
C	mm	4330	4330	4330	4370	4550	4550	4800
Weight	Kg	4080	4140	5470	5950	6290	6460	7310

Attention: For D - T - E version - please contact us

Cod.: SHWF2512_5612_w_hp_UY.00/1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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WFG

Chillers, Water/Water internal installation,
Can be inverted into a heat pump on water side
Twin-screw compressor, tube core heat exchangers
Cooling capacity 483 - 1726 kW
Heating capacity 524 - 1866 kW

HFO Refrigerant R1234ze Low GWP





EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec adheres to the EUROVENT LCP Certification Programme.
The products concerned appear on the site www.eurovent-certification.com

- **FOR LOW CONDENSING TEMPERATURES, such as equipment operating only for cooling with well or tower water, or equipment with a heat pump with water produced at low temperature**
- **MAXIMUM OUTLET WATER TEMPERATURE FROM CONDENSER: 50°C**
- **ELECTRONIC THERMOSTATIC VALVE AS STANDARD**

Features

Indoor unit producing chilled/heated water (with hydraulic inversion).
Compact and flexible. Thanks to careful adjustment, they adapt perfectly to every thermal load required. They are equipped with dedicated screw compressors using the **new HFO R1234ze gas** and for work at low condensing temperatures. The plant and source side heat exchangers are tube core type, the base and support structure are in steel finished with corrosion-resistant polyester paint.

HFO R1234ze is a blend characterised by **ODP = 0 and GWP (Global Warming Potential) = 7, R134a GWP = 1430**; it has thermo-dynamic properties that match and even improve the efficiency achieved with HFC coolants.

Versions
- **WFG_°** Standard chiller
- **WFG_A** High efficiency chiller

Functioning range
Production of chilled water up to 4°C on evaporator side but also suitable for use as heat pump (with hydraulic inversion) with a temperature for the water produced at the condenser of up to 50°C. For more details, refer to the technical documentation / selection software.

- 2/3 independent cooling circuits
- High efficiency screw compressors with quiet operation. Cooling capacity adjustment by means of continuous modulation from 12,5 to 100% for each compressor)
- Tube core heat exchangers
- **electronic thermostatic valve as standard**
- Suitable for use as a heat pump with a temperature for the water produced of up to 50 °C (with hydraulic inversion) with well water or geo-thermal probes. **Accessory IS is needed for heating operation (condenser insulation)**
- If so required, the units , **can be enclosed** "L" with special sound-proofing elements for the compressors that further reduce noise levels compared to the Standard set-up
- **Modular microprocessor control system**
- Component redundancy (one microprocessor per circuit)
- Output water temperature control with continual adjustment of capacity and dynamic display of cooling capacity
- Control panels with numbered cables
- Condensation control with 0-10Vdc signal managing a modulating valve / variable speed pump in relation to pressure
- Amperometric transformer as standard for each compressor
- "Always Working" function: if critical conditions arise, the machine does not stop but is able to auto-adjust itself
- Automatic offset of Set Points with analogue input from 4 to 20 mA or 0 - 10 V or ambient air probe
- Self-adapting work differential always ensuring correct compressor operating times
- PDC "Pull Down Control" system: prevents power increases when water temperature quickly approaches the set point
- DL "Demand Limit": used to limit the machine's power consumption if electrical power is insufficient (load peaks or generators coming into operation).
- Multilingual operating parameter display.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_EVO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **PRV3:** this allows the chiller command operations to be given from a distance.
- **MULTICHILLER**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AVX:** sprung anti-vibration supports.

Accessories installed in the factory
- **RIF:** Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- **AKW: ACOUSTIC KIT**. (**only with Configuration L**) This accessory allows further noise reduction.
- **IS:** Condenser insulation kit, **Compulsory accessory for operating the machine as a heat pump.**

Compatibility of accessories

Mod	Version	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AER485P1		• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x3)	• (x3)	• (x3)	• (x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
							Compatibility AVX						
standard / standard sound-proofed													
Mod WF		**2512°**	**2812°**	**3212°**	**3612°**	**4212°**	**4812°**	**5612°**	**6412°**	**6713°**	**7213°**	**8413°**	**9613°**
AVX		673	673	673	674	674	674	675	675	689	689	689	689
Mod WF		**2512°L**	**2812°L**	**3212°L**	**3612°L**	**4212°L**	**4812°L**	**5612°L**	**6412°L**	**6713°L**	**7213°L**	**8413°L**	**9613°L**
AVX		673	673	674	674	674	674	675	675	689	689	689	689
high efficiency / high efficiency sound-proofed													
Mod WF		**2512A**	**2812A**	**3212A**	**3612A**	**4212A**	**4812A**	**5612A**	**6412A**	**6713A**	**7213A**	**8413A**	**9613A**
AVX		673	673	674	675	675	675	676	676	690	690	691	691
Mod WF		**2512AL**	**2812AL**	**3212AL**	**3612AL**	**4212AL**	**4812AL**	**5612AL**	**6412AL**	**6713AL**	**7213AL**	**8413AL**	**9613AL**
AVX		674	674	675	675	675	675	676	676	690	690	691	691
Accessories installed in the factory													
REF (RIFWF)		**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**	**6713**	**7213**	**8413**	**9613**
AKW	(1)	•	•	•	•	•	•	•	•	•	•	•	•
IS1	(2)	**°/A**	**°/A**	°	°	°	°	-	-	-	-	-	-
IS2	(2)	-	-	**A**	**A**	**A**	**A**	°	°	-	-	-	-
IS3	(2)	-	-	-	-	-	-	**A**	**A**	-	-	-	-
IS4	(2)	-	-	-	-	-	-	-	-	°	°	°	-
IS5	(2)	-	-	-	-	-	-	-	-	**A**	**A**	-	°
IS6	(2)	-	-	-	-	-	-	-	-	-	-	**A**	**A**

(1) Only available with Configuration L
(2) Accessory recommended when heating is used
Warning: For D/T/E versions, contact the company
* Contact the company

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Description**

1,2,3 **WFG**

4,5,6,7 **Size**

2512-2812-3212-3612-4212-4812-5612-6412-6713-7213-8413-9613

8 **Model**

° Optimised for low condensation levels

9 **Version**

° Standard

A High efficiency

10 **Set-up**

° Standard

L Sound-proofed

11 **Heat recuperators**

° Without recovery units

D With partial heat recovery

T With total heat recovery **(3)**

12 **Evaporator**

° Standard

E Condenserless

13 **Power supply**

° 400V/3/50Hz with fuses

14 **Safety value**

° Standard

2 Dual safety valve with exchange cock

(3) Not compatible with condenserless units "E"

Technical data

WFG - °				2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
	V/ph/Hz			400V/3/50Hz											
12°C/7°C	Cooling power	(1)	kW	483	550	663	747	855	977	1074	1176	1223	1398	1539	1706
	Absorbed power	(1)	kW	96,2	110,1	134,5	150,5	169,8	196,4	216,8	240,2	249,3	282,1	317,8	352,0
	EER	(1)		5.02	5,00	4.93	4.96	5.04	4.97	4,95	4.90	4,91	4.96	4,84	4.85
	ESEER	(1)		5.85	5.90	5.86	5.86	5.88	5.89	5.86	5.86	6.14	6.21	6.20	6.14
	Plant water flow rate	(1)	l/h	83142	94731	114282	128606	147231	168312	184998	202734	210554	240631	265013	293782
	pressure drops	(1)	kPa	24.0	33,7	32,4	27.0	25,4	36,3	37,8	43,3	27,8	22,0	26,6	30,3
	Geo-thermal water flow rate	(1)	l/h	98579	112336	135815	152778	174503	199719	219710	241143	250384	285782	315851	350048
	pressure drops	(1)	kPa	10	10	11	9	11	14	10	11	25	26	26	25
40°C/45°C	Thermal power	(2)	kW	536.5	614.7	739.6	831.8	949.4	1093.3	1202.7	1320.7	1364.8	1557.2	1722.9	1909.2
	Absorbed power	(2)	kW	120.6	136.9	169.0	188.8	212.8	244.4	269.8	299.0	311.9	352.2	397.4	440.7
	COP	(2)		4.45	4.49	4.38	4.41	4.46	4.47	4.46	4.42	4.38	4.42	4.34	4.33
	Plant water flow rate	(2)	l/h	93157	106750	128441	144465	164884	189829	208890	229380	236841	270210	298985	331328
	pressure drops	(2)	kPa	9	9	10	8	10	13	9	10	23	24	23	23
	Geo-thermal water flow rate	(2)	l/h	121437	104404	166919	187842	215045	185489	203888	223435	307534	351464	387078	429097
	pressure drops	(2)	kPa	51	41	69	58	54	44	46	53	59	47	57	65
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc			229,7	232,4	230,7	231,6	236,0	235,6	234,6	233,7	243,9	249,3	248,0	245,9
	SEER			5,94	6,01	5,97	5,99	6,10	6,09	6,07	6,04	6,30	6,43	6,40	6,35

WFG - A				2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
	V/ph/Hz			400V/3/50Hz											
12°C/7°C	Cooling power	(1)	kW	489	553	671	744	860	974	1081	1183	1257	1424	1589	1726
	Absorbed power	(1)	kW	91,1	104,4	125,0	139,3	158,3	178,8	202,3	223,9	234,4	266,6	300,3	333,1
	EER	(1)		5.37	5.30	5.37	5.34	5,43	5,44	5.34	5.28	5.36	5.34	5.29	5.18
	ESEER	(1)		6.32	6.28	6.32	6.32	6.36	6.33	6.22	6.16	6.57	6.55	6.42	6.39
	Plant water flow rate	(1)	l/h	84253	95265	115601	128086	148111	167599	186077	203720	216359	245226	273650	297252
	pressure drops	(1)	kPa	26	34	35	24	36	23	25	30	20	31	32	37
	Geo-thermal water flow rate	(1)	l/h	98654	111733	135299	150172	173083	195962	218134	239123	253677	287527	321437	350099
	pressure drops	(1)	kPa	38	38	42	39	40	41	44	46	37	37	31	36
40°C/45°C	Thermal power	(2)	kW	535.6	606.9	734.5	815.5	938.9	1063.2	1184.7	1299.3	1377.2	1561.0	1745.4	1903.3
	Absorbed power	(2)	kW	113.1	130.1	155.5	173.4	196.0	223.9	253.2	280.3	294.5	331.9	375.6	416.5
	COP	(2)		4.73	4.66	4.72	4.70	4.79	4.75	4.68	4.64	4.68	4.70	4.65	4.57
	Plant water flow rate	(2)	l/h	92842	105209	127309	141385	162778	184328	205362	225220	238838	270710	302819	330115
	pressure drops	(2)	kPa	33	34	37	34	36	36	39	40	33	33	27	32
	Geo-thermal water flow rate	(2)	l/h	123059	139144	168846	187081	216330	244795	271784	297552	316013	358175	399693	434165
	pressure drops	(2)	kPa	40	57	53	43	41	58	60	68	65	50	63	69
	Cooling capacity with low leaving water temp (UE n° 2016/2281)														
	ηsc			250,9	249,3	256,5	254,3	261,1	259,9	255,9	253,7	268,5	268,3	263,3	262,6
	SEER			6,47	6,43	6,61	6,56	6,73	6,70	6,60	6,54	6,91	6,91	6,78	6,77

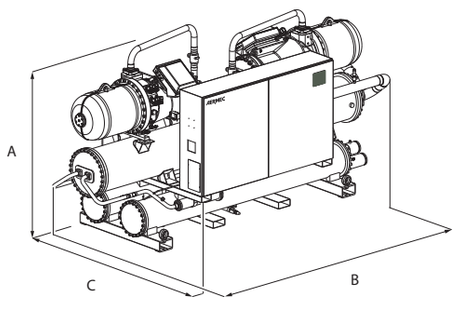
Data (14511:2013)
(1) Plant water (in/out) 12°C/7°C; Geo-thermal water (in/out) 30°C/35°C
(2) Plant water (in/out) 40°C/45°C; Evaporation water (in/out) 10°C/7°C

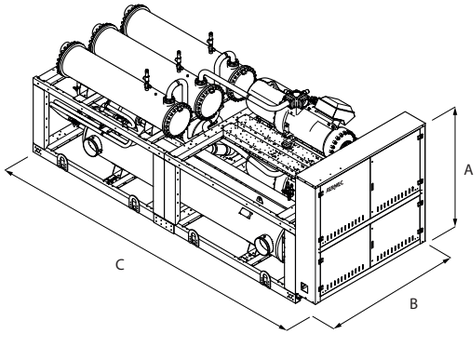
Technical data

			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Electrical Data														
Total current absorbed when cold	°	A	171	198	223	248	272	331	363	403	418	499	551	615
Total current absorbed when hot	°	A	206	236	267	298	330	393	429	476	502	590	649	722
Total current absorbed when cold	A	A	164	190	213	238	260	314	348	387	407	487	536	600
Total current absorbed when hot	A	A	197	226	255	286	314	373	413	457	489	575	633	704
Maximum current (FLA)		A	235	268	313	355	393	454	506	556	608	699	776	854
Starting current (LRA)		A	447	528	596	659	712	872	968	1156	859	1047	1178	1376
Twin-screw compressors														
Compressors / Circuit		no./ no.	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Coolant gas		Type	R1234ze											
System side heat exchanger - Tube core														
Heat exchanger		no.	1											
Water connections (IN/OUT)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"	10"	10"	10"	10"
Water connections (IN/OUT)	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	10"	10"
Source side heat exchanger - Tube core														
Heat exchanger		no.	2								3			
Water connections (IN/OUT)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"	5"	5"	5"	5"
Water connections (IN/OUT)	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"	5"	5"	6"	6"
Sound Data														
Sound pressure level		dB(A)	94	94	94	94	95	96	97	98	64	65	67	67
Sound power level		dB(A)	62	62	62	62	63	64	65	66	96	97	99	100

Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.
Sound pressure (Cold operation) Sound pressure measured in a free field, 10 m from the external surface of the unit (according to the UNI EN ISO 3744).
N.B.: For further information, please refer to the selection programme or the technical documentation available at www.aermec.com

Dimensions (mm)





Mod WFG - °		**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**	**6713**	**7213**	**8413**	**9613**
A	mm	2100	2100	2050	2120	2140	2140	2210	2210	2225	2225	2225	2225
B	mm	3690	3690	4030	4030	4370	4370	4610	4760	2200	2200	2200	2200
C	mm	1470	1470	1470	1520	1550	1550	1600	1600	5650	5650	5650	5650
Weight	kg	3570	3650	4470	4750	5050	5180	6030	6260	7991	8145	8446	8578
Mod WFG - A		**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**	**6713**	**7213**	**8413**	**9613**
A	mm	2180	2180	2190	2340	2340	2340	2380	2380	2225	2225	2225	2225
B	mm	4330	4330	4330	4370	4550	4550	4800	4800	2200	2200	2200	2200
C	mm	1470	1470	1537	1695	1695	1695	1700	1700	5650	5650	5650	5650
Weight	kg	4080	4140	5470	5950	6240	6440	7230	7360	8893	9063	9637	9698

Warning For the dimensions of versions D - T - L - E, contact the company

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Code: SWFGUI.03 / 1712

AERMEC

WMX
WMG

Water cooled chiller, For indoor installation centrifugal compressor flooded evaporator Cooling capacity 280 - 324 kW

HFC Refrigerant R134a

HFO Refrigerant R1234ze Low GWP

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP the products are present on the site www.eurovent-certification.com



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS ESEER 8,4**
- **DESIGN COMPACT**
- **EXTREMELY RELIABLE AND FLEXIBLE**

Features

Units for internal installation offering chilled water.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. They are equipped with centrifugal compressors and heat exchangers, plant side and flooded the source, ensuring a reduction in the refrigerant charge by 50% compared to conventional flooded exchangers.
The base, the structure and the panels are made of steel treated with rustproof polyester paint.
The technological choices made, always oriented to the highest quality **and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent).**
Component layout designed to enable several units to be positioned side by side in restricted plant rooms. Ideal when standby is required or when cooling duty is to be increased at a later date

Versions
WMX Chiller with R134a
WMG Chiller withR1234ze
Both versions can be silenced
HFO R1234ze is a mixture featuring **ODP=0 e GWP** (**Global Warming Potential) = 7**, **R134a GWP = 1430**, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

- **New generation two-stage oil free centrifugal compressor** with magnetic levitation friction free bearings
  Compressor features:
  - Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
  - Provided with inverter technology that permits capacity modulation down to 20% A version
  - Integrated controller that **reduces starting current to 6 A only**

Unit features
- 5 times lighter than an equivalent screw compressor
- Extremely compact wide to allow access through a standard doorway
- High efficiency with generously sizes heat exchanger
- Extraordinary efficiency at part load **(ESEER up to 8.4 among the highest in the market)**
- Electronic expansion valve
- Electronic controller for monitoring and proactive controls
- Microprocessor control system
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- **Acoustic enclosure (option):** heavy gauge galvanized sheet steel with internal acoustic insulation.

Accessories

- **AER485P1TW:** RS-485 interface for supervision systems with MODBUS protocol.
- **PTW: Remote control of chiller operating functions**.
- **MULTICHILLER_EVO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability. **(When this accessory is present, the AER485P1TW is factory fitted as standard).**

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field		Description
1,2		WM
3		Refrigerant
	X	R134a
	G	R1234ze
4,5,6		Size
		300
7		Efficiency
	A	High efficiency
	U	Very high efficiency
8		Versions
	°	Standard
	L	Low noise

Technical data

WMX/G - A			300X	300G
	V/ph/Hz		400V/3/50Hz	
12°C / 7°C	Cooling capacity	kW	323,6	311,8
	Total input power	kW	60,4	57,6
	EER		5,36	5,41
	ESEER		8,19	8,27
	Cooling Energy Class Eurovent		A	A
	Water flow rate system side	l/h	55900	53400
	Pressure drop	kPa	34	31
	Water flow rate geothermal side	l/h	67700	63600
	Pressure drop	kPa	41	36
	Cooling capacity with low leaving water temp (UE n° 2016/2281)			
	ηsc		333,1	335,5
	SEER		8,53	8,59

WMX/G - U			300X	300G
	V/ph/Hz		400V/3/50Hz	
12°C / 7°C	Cooling capacity	kW	279,7	281,8
	Total input power	kW	49,0	49,1
	EER		5,71	5,74
	ESEER		8,44	8,31
	Cooling Energy Class Eurovent		A	A
	Water flow rate system side	l/h	48300	48400
	Pressure drop	kPa	25	25
	Water flow rate geothermal side	l/h	58300	57800
	Pressure drop	kPa	30	29
	Cooling capacity with low leaving water temp (UE n° 2016/2281)			
	ηsc		333,9	333,0
	SEER		8,55	8,53

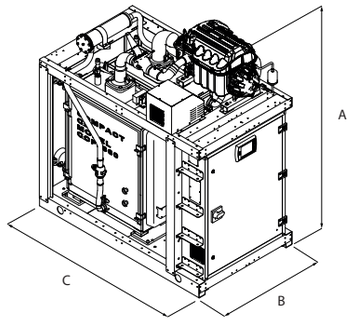
Date (14511:2013)
Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

			300X	300G
Electrical data				
Total input current (cooling)	A	A	94	85
	U	A	78	74
Maximum current (FLA)		A	135	150
Starting current (LRA)		A	6	6
Two-stage oil free centrifugal compressor				
Compressors / Circuit		n°/n°	1/1	1/1
Refrigerant		Type	R134a	R1234ze
Heat exchanger system side				
Heat exchanger		Type/n°	Floded Spray system /1	
Heat exchanger source side				
Heat exchanger		Type/n°	Shell&tube compact /1	
Sound data				
Sound power level	A	dB(A)	90	
	U	dB(A)	85	
	AL	dB(A)	84	
	UL	dB(A)	78	

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

WM				300X	300G
Height	A/U	A	mm	1905	
	AL/UL	A	mm	1942	
Width		B	mm	1041	
Length		C	mm	1770	
Weight	A/U		kg	2025	2205
	AL/UL		kg	2390	2430



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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Code: SWMX_GUY.02 / 1712

TW1110 Water cooled modular chiller with centrifugal compressor

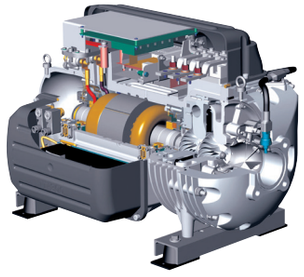
HFC Refrigerant R134a

ESEER UP TO 7,90

HERCULES

Aermec participates in the EUROVENT Program: LCP
The products of interest can be found on the website www.eurovent-certification.com





Characteristics

- Cooling only version
- New generation two-stage oil free centrifugal compressor with magnetic levitation friction free bearings
- Plate heat exchangers optimised for use with refrigerant R134a
- Extremely compact: only 805 mm wide to allow access through a standard doorway
- Component layout designed to enable several units to be positioned side by side in restricted plant rooms. Ideal when standby is required or when cooling duty is to be increased at a later date
- High efficiency with generously sizes heat exchanger
- Extraordinary efficiency at part load **(up to 30% higher IPLV when compared with standard chillers)**
- Electronic expansion valve

Compressor features:
- Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
- Provided with inverter technology that permits capacity modulation down to 25%
- Integrated controller that reduces starting current to 6 A only
- 5 times lighter than an equivalent screw compressor
- Electronic controller for monitoring and proactive controls
- Microprocessor control system
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- **Acoustic enclosure:** heavy gauge galvanized sheet steel with internal acoustic insulation.

Accessories

- **AER485P1TW:** RS-485 interface for supervision systems with MODBUS protocol.
- **PTW: Remote control of chiller operating functions**.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability. (When this accessory is present, the AER485P1TW is factory fitted as standard).

Technical data

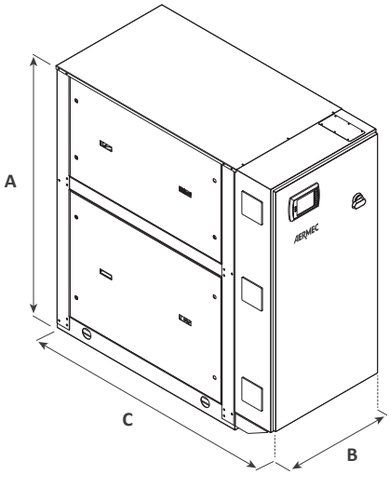
Mod.		TW 110
Cooling capacity	kW	284
Total input power	kW	58,47
Evaporator water flow rate (7 °C)	l/h	49020
Evaporator pressure drop	kPa	30
Condenser water flow rate (30 °C)	l/h	58236
Condenser pressure drop	kPa	43
ENERGY INDEX		
EER	W/W	4,86
ESEER	W/W	7,05
ELECTRICAL DATA		
Power supply	-	400V 3~ 50Hz
Input current	A	88
Maximum current (FLA)	A	134
Starting current (LRA)	A	6
SOUND DATA		
Sound pressure	dB(A)	77
Sound power	dB(A)	49
HYDRAULIC CONNECTION		
Evaporator hydraulic connection (Victaulic)	Ø	3"
Condenser hydraulic connection (Victaulic)	Ø	3"
Prestazioni a freddo per basse temperature		
ηsc		296.0
SEER		7.60
Data declared in accordance with UNI EN 14511:2013		

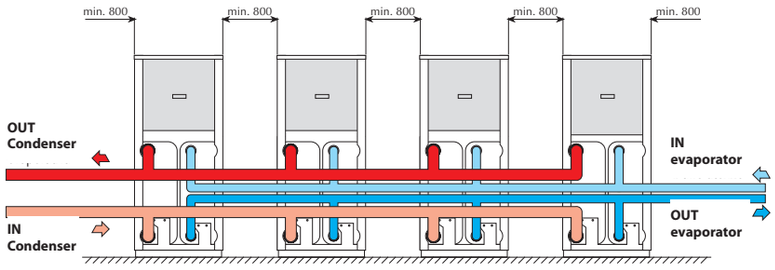
Cooling
- leaving water temperature 7°C;
- condenser entering water temperature 30 °C;
- Δt = 5 °C;

Sound power:
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

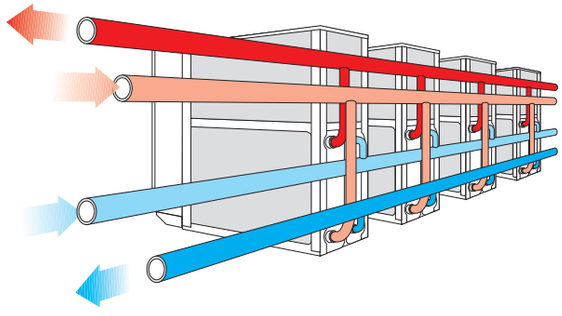
Sound pressure:
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)





Model		TW 110
Height	[mm] (A)	1727
Width	[mm] (B)	805
Depth	[mm] (C)	1653
Weight	kg	960



Cod.: STWUY.06 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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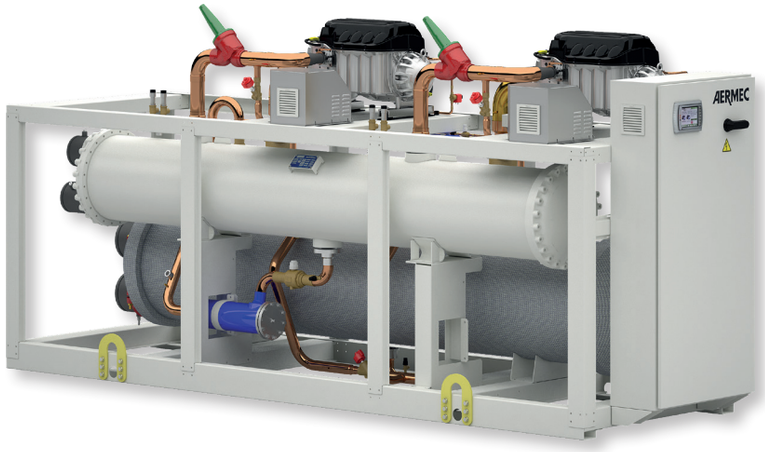
WTX

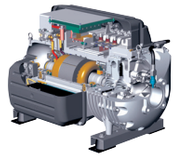
Water/Water Chiller - internal installation
Centrifugal oil-free compressors, Flooded heat exchangers
Cooling capacity 222 - 1950kW

HFC
Refrigerant
R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT program: LCP The products concerned up to 1500kW appear on the site www.eurovent-certification.com





- **HIGH EFFICIENCY UP TO 9**
- **EXTENDED OPERATING RANGE**
- **POSSIBILITY OF SELECTING BETWEEN HEAT EXCHANGERS WITH 1 OR 2 PASSES ON WATER SIDE**

Features

Indoor unit producing chilled water equiped with magnetic levitation centrifugal compressors and shell&tube heat exchangers.
The base and the structure are made of steel treated with polyester anti-corrosion paints.
The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

Versions
• **WTX_A** High Efficiency Chiller
WTX_U Ultra-High Efficiency Chiller
Both versions can be sound-proofed

- **Operating range:** Water produced at 15°C to 50°C on Condenser side and 5°C to 25°C on Evaporator side.

- **Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation**
- Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise
- The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%)
- Built-in device to reduce starting current **(only 6 Amps!**)
- **Flooded Evaporator with subcooler**
- Subcooler effect:
Superheats compressor gas intake;
Subcools thermostatic valve fluid intake;
Increases chiller yield and ensures gas suction from compressor.
- **Condenser**
- With refrigerant on shell side and water on pipe side

- From size 1300 to 2350, heat exchangers have 2 passes on the water side

- From size 3300 to 4350, configurations are available with heat exchangers with 1 or 2 passes on the water side
- Extraordinary efficiency under partial loads **(ESEER up to 9 among the highest on the market)**
- Electronic thermostatic valves
- On-board control electronics for monitoring and proactive operating management
- Microprocessor unit control
- Touchscreen colour LCD user interface with very intuitive graphic menus
- **Acoustic chiller enclosure (option):** in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.

- **MULTICHILLER_EVO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators. **This accessory requires the inclusion of AER485P1 for each unit connected.**

- **AVX:** Spring-type anti-vibration supports.

Compatibility of accessories

WTX	vers.	1300	1350	2300	2350	3300	3325	3350	4325	4350
AER485P1		•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•

(1) Accessory to be defined when placing the order

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field		Description
1,2,3		**WTX**
4,5,6,7		**Size**
		1300 - 1350 - 2300 - 2350 - 3300 - 3325 - 3350 - 4325 - 4350
8		**Efficiency**
	A	High efficiency
	U	Extra high efficiency
9		**Heat exchangers**
	2	Two passes on water side
	1	On pass on water side **(available from size 3300 to 4350)**
10		**Version**
	°	Standard
	L	Sound-proofed
11		**Power supply**
	°	400V 3 ~ 50Hz with circuit breakers on compressors and auxiliary circuit

HEAT EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

Flooded evaporator with level adjustment through an electronic valve controlled by a level sensor.

Backflow condenser with refrigerant on shell side and water on tube side.

From size 1300 to 2350, heat exchangers have 2 passes on the water side.

Starting from size **WTX3300, heat exchangers** are available as **versions with one or two passes on the water side** to meet any plant installation requirement.
The dimensions of the two configurations ensure similar performances (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



Technical data

WTX - A			1300	1350	2300	2350	3300		3325		3350		4325*		4350*	
Passes on water side		no.	**2**	**2**	**2**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
									400V 3 ~ 50Hz							
12°C/7°C	Cooling power	(1) kW	350,7	487,7	701,2	897,7	1053	1051	1212	1211	1464	1462	1714	1710	1952	1950
	Absorbed power	(1) kW	70,8	94.3	141,7	164,0	211,4	212,6	219,8	220,6	281,5	283,8	315,3	318,8	375,0	380,0
	EER	(1)	4,95	5.17	4,95	5.47	4.98	4.94	5.51	5.49	5,20	5.15	5,44	5.36	5,20	5.13
	ESEER	(1)	8,11	8,10	8.02	8.40	8.27	8.05	8.00	7,90	8.39	8,10	8.26	7,90	8.45	8.00
	Evaporator water flow rate	(1) l/h	60489	84099	120978	154802	181467	181467	208982	208982	252296	252296	295297	295297	336395	336395
	pressure drops	(1) kPa	32	30	40	33	32	54	39	52	31	54	24	60	31	49
	Condenser water flow rate	l/h	71956	99378	143913	181443	215869	215869	244504	244504	298133	298133	346514	346514	397510	397510
	pressure drops	kPa	31	33	35	28	31	28	38	35	31	33	42	41	31	53
	Cooling mode for low temperature (UE n° 2016/2281)															
	ηsc		321,1	328,1	316,6	335,1	340,4		327,8		345,8		333,0		345,5	
	SEER		8,23	8,40	8,12	8,58	8,71		8,40		8,85		8,53		8,84	

WTX - U			1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side		no.	**2**	**2**	**2**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
									400V 3 ~ 50Hz							
12°C/7°C	Cooling power	(1) kW	222,7	333,8	445,5	559,3	668,5	668,2	868,7	838,5	1002	1005	1179	1190	1336	1340
	Absorbed power	(1) kW	37.6	55,9	75,1	94.3	112,2	112,5	144,9	140,7	166,8	167,2	195,3	198,4	222,3	223,4
	EER	(1)	5.92	5.97	5.93	5.93	5.96	5.94	6,00	5.96	6,00	6.01	6.04	6,00	6.01	6,00
	ESEER	(1)	8.63	8.34	8.68	8,77	8.94	8.83	8.80	8.75	8.99	8.87	9,02	8,77	8.94	8.72
	Evaporator water flow rate	(1) l/h	38377	57508	76754	96321	115132	115132	149642	144482	172524	173134	202962	205026	230032	230845
	pressure drops	(1) kPa	12	13	16	12	12	21	18	23	14	24	10	26	14	22
	Condenser water flow rate	l/h	44528	66656	89056	111838	133584	133584	173377	167508	199968	200500	235091	237447	266624	267334
	pressure drops	kPa	12	14	13	10	12	10	17	15	13	14	17	17	13	23
	Cooling mode for low temperature (UE n° 2016/2281)															
	ηsc		341,3	335,5	346,7	360,1	344,5		367,1		363,5		355,3		365,3	
	SEER		8,73	8,59	8,87	9,20	8,81		9,38		9,29		9,08		9,33	

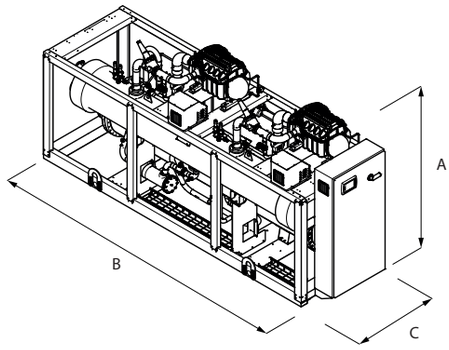
Data (14511:2013)
(1) Evaporator water (in/out) 12°C/7°C; Condenser water (in/out) 30°C/35°C
* Units not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

			1300	1350	2300	2350	3300	3325	3350	4325	4350
Electrical Data											
Total current absorbed when cold	A	A	106	145	212	255	317	356	435	503	580
	U	A	60	91	120	158	180	237	273	316	364
Maximum current (FLA)		A	135	210	270	420	405	630	630	840	840
Starting current (LRA)		A	6	6	141	216	276	426	426	636	636
Oil Free Centrifugal Inverter Compressors											
Compressors / Circuit		no./no.	1/1	1/1	2/1	2/1	3/1	3/1	3/1	4/1	4/1
Coolant gas		Type					R134a				
Evaporator - Shell&tube											
Heat exchanger		no.					1				
Condenser - Shell&tube											
Heat exchanger		no.					1				
Sound Data											
sound power level	A	dB(A)	90.0	91.0	93,0	93,5	96,0	95,5	97,0	98,5	100,0
sound power level	U	dB(A)	87.0	88,0	90.0	88,0	90.0	91.0	94,0	94,0	97,0

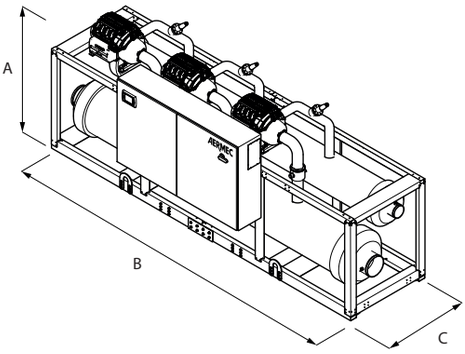
Sound power (Cold operation) Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.
N.B.: For further information, please refer to the selection programme or the technical documentation available at www.aermec.com

Dimensions (mm)

WTX 1300 - 2350



WTX 3300 - 4350



WTX A/U		1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side	no.	**2**	**2**	**2**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
A	mm	1850	1950	1970	2010	1970	2240	2010	2280	2010	2280	2010	2280	2280	2280
B	mm	3040	3040	3340	3440	4966	3990	4966	3990	4966	3990	4966	4966	4966	4966
C	mm	1000	1000	1240	1240	1640	1732	1640	1732	1640	1836	1640	1836	1732	1836

Code: SWTXUY.01 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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MULTI-PURPOSE

Thanks to the special architecture of the refrigerant circuit and advanced control logic, the multi-purpose heat pump is able to simultaneously satisfy different installation requirements and to independently modulate the power delivered on each of them.
The ability to simultaneously meet the demand of the hot and cold circuit, whatever the proportion of the load on the two circuits may be, derives from the capacity of its control to switch the operation between the various possible modes.

MULTI-PURPOSE

		Air flow rate (m^3/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
NRP 0200-0750	Multi-Purpose (plate heat exchanger)	-	43,0-184,0	46,0-206,0	462
NRP 0800-1800	Multi-Purpose (plate heat exchanger)	-	199,0-475,0	242,0-547,0	466
NRP 0800-1800	Multi-Purpose (shell and tube heat exchanger)	-	199,0-475,0	242,0-547,0	470
NXP 0500-1650	Multi-Purpose (plate heat exchanger)	-	109,0-501,0	123,0-560,0	474

NRP

0200/0750

Multipurpose
Air/Water for outdoor installation
Axial fans, scroll compressor
Cooling capacity 43 - 184kW
Heating capacity 46 - 206kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP
the products are present on the site www.eurovent-certification.com



• DESIGNED FOR 2 AND 4–PIPE SYSTEMS
• SIMULTANEOUS AND INDEPENDENT PRODUCTION OF HOT AND CHILLED WATER
• HIGH EFFICIENCY EVEN AT PART LOAD

Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems.** With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version
NRP_A High efficiency version
NRP_E High efficiency low noise version
Range of operations
Working at full load up to -15°C outside air temperature in winter, and up to 46°C in summer. Hot water production up to 55°C (for more information see the technical documentation)

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations
- Axial fans for extremely quiet operation
- DCPX as standard.
- Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.
- Microprocessor controls.
  - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
  - Evaporating control in summer for heat pump operation
  - Intelligent defrost control on drop of pressure
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET:** the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER_NRP**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current by about 26%.
  Available only with 400V power supply.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NRP		Vers.	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1		Alls	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		Alls	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_NRP		Alls	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		Alls	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	A	-	-	-	-	-	-	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
	(1)	E	3	3	3	4	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
VT (00-P1-P2-P3-P4)		Alls	17	17	17	17	17	17	11	11	11	11	22	23
VT (01-02-03-04-05-06-07-08-09-10)		Alls	13	13	13	13	13	13	11	11	11	11	22	23
VT (R1-R2-R3-R4)		Alls	17	17	17	17	17	17	11	11	11	11	22	23
Accessories factory fitted only														
DRE	(2)	Alls	281	281	281	301	331	351	501	551	601	651	701	751
RIF		Alls	54	54	50	50	50	51	52	52	53	53	53	53

(1) (x2)(x3) the number in brackets indicates the quantity to order
(2) Only available for 400V/3N/50Hz power supply

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**

1,2,3 **NRP**

4,5,6,7 **Size**

0200-0240-0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 **(4)**

8 **Version**

- **A** High efficiency
- **E** High efficiency in low noise operation

9 **System type**

- **2** 2-pipe system (cooling + DHW heating)
- **4** 4-pipe system (cooling + heating)

10 **Coil**

- **°** In aluminium
- **R** In copper
- **S** In tinned copper
- **V** Coated aluminium (epoxy paint)

11 **Fans (5)**

- **°** Standard
- **M** Increased
- **J** High static pressure Inverter

12 **Power supply (6)**

- **°** 400V/3N/50Hz with circuit breakers
- **1** 220V/3/50Hz with circuit breakers

13-14 **System integrated hydronic module (7)**

- **00** without pumps or buffer tank
- **01** n°1 low head pump and buffer tank
- **02** n°2 low head pump and buffer tank
- **03** n°1 high head pump and buffer tank
- **04** n°2 high head pump and buffer tank
- **05** n°1 low head pump and buffer tank (with holes for immersion heaters)
- **06** n°2 low head pump and buffer tank (with holes for immersion heaters)
- **07** n°1 low high pump and buffer tank (with holes for immersion heaters)
- **08** n°2 low high pump and buffer tank (with holes for immersion heaters)
- **P1** n°1 low head pump
- **P2** n°2 low head pump
- **P3** n°1 high head pump
- **P4** n°2 high head pump

15-16 **Heat recovery integrated hydronic module**

- **00** without pumps
- **R1** n°1 low head pump
- **R2** n°2 low head pump
- **R3** n°1 high head pump
- **R4** n°2 high head pump

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 0200 … 0750

System integrated hydronic module \ Heat recovery integrated hydronic module	00	R1	R2	R3	R4
00	ok	ok	ok	ok	ok
01	ok	nd	nd	nd	nd
02	ok	nd	nd	nd	nd
03	ok	nd	nd	nd	nd
04	ok	nd	nd	nd	nd
05	ok	nd	nd	nd	nd
06	ok	nd	nd	nd	nd
07	ok	nd	nd	nd	nd
08	ok	nd	nd	nd	nd
P1	ok	ok	ok	ok	ok
P2	ok	ok	ok	ok	ok
P3	ok	ok	ok	ok	ok
P4	ok	ok	ok	ok	ok

nd = not available

(4) The size 0200-0240-0280-0300-0330-0350 only available in low noise version "E"
(5) **Standard on/off fans** for sizes from 0500 to 0750
Increased on/off fans, option available for sizes from 0200 to 0350
Standard Inverter fans for sizes from 0200 to 0350, without useful static pressure
Inverter fan, option for sizes from 0500 to 0750 with useful static pressure
(6) 220V/3/50Hz is not available for size 0750
(7) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.

Technical Data

NRP - for 2-pipe system *				0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
	V/Ph/Hz			400V/3N/50Hz											
Cooling system side (A)															
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	/	/	100	103	123	140	159	184
	Total input power	(1)	kW	/	/	/	/	/	/	32,5	36,0	44,2	50,5	55,2	64,6
	EER	(1)		/	/	/	/	/	/	3,07	2,87	2,8	2,78	2,88	2,85
	ESEER	(1)		/	/	/	/	/	/	3,71	3,48	4,13	4,09	3,98	3,98
	ηsc	%		/	/	/	/	/	/	141,6	130,6	148,0	150,1	151,3	153,7
	SEER			/	/	/	/	/	/	3,62	3,34	3,78	3,83	3,86	3,92
	Water flow rate	(1)	l/h	/	/	/	/	/	/	17200	17900	21300	24252	27520	31800
	Pressure drop	(1)	kPa	/	/	/	/	/	/	37	39	37	48	56	67
Cooling system side (E)															
12°C / 7°C	Cooling capacity	(1)	kW	43	50	56	64	68	80	95	99	116	130	152	178
	Total input power	(1)	kW	14,0	16,6	18,9	20,9	23,3	27,1	35,2	39,0	48,4	55,5	61,9	70,6
	EER	(1)		3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52
	ESEER	(1)		3,81	3,78	3,85	3,77	3,85	3,73	3,67	3,45	4,03	3,99	3,87	3,87
	ηsc	%		148,2	146,5	147,7	145,0	146,5	157,1	138,1	128,5	143,6	145,7	146,9	147,5
	SEER			3,78	3,74	3,77	3,70	3,74	4,00	3,53	3,29	3,67	3,72	3,75	3,76
	Water flow rate	(1)	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867
	Pressure drop	(1)	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Heating system side (A) (E)															
40°C / 45°C	Heating capacity	(2)	kW	46	53	60	75	80	84	107	113	138	153	174	206
	Total input power	(2)	kW	13,3	15,6	17,8	22,4	24,0	25,7	32,6	35,1	41,3	45,7	53,8	62,8
	COP	(2)		3,47	3,41	3,39	3,37	3,35	3,28	3,26	3,21	3,34	3,34	3,23	3,29
	Water flow rate	(2)	l/h	7912	9116	10300	12900	13760	14448	18232	19270	23564	26144	29756	35260
	Pressure drop	(2)	kPa	30	42	25	40	31	34	42	45	45	56	65	83
Heating DHW side (A) (E)															
40°C / 45°C	Heating capacity	(3)	kW	46	53	60	75	80	84	106	112	138	153	174	206
	Total input power	(3)	kW	13,2	15,5	17,7	22,4	24,0	25,6	32,5	35,0	41,3	45,7	53,5	62,4
	COP	(3)		3,49	3,44	3,4	3,37	3,35	3,3	3,27	3,22	3,33	3,35	3,25	3,3
	Water flow rate	(3)	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260
	Pressure drop	(3)	kPa	13	17	21	33	38	19	31	34	51	49	35	50
	Performance under average climatic conditions (Average)														
	Pdesignh	(4)		39	45	51	64	68	71	90	95	116	129	147	174
	SCOP	(4)		3,60	3,53	3,55	3,50	3,50	3,42	3,52	3,50	3,70	3,67	3,55	3,45
	ηs	(4)		141	138	139	137	137	134	138	137	145	144	139	141
	Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	/	/	/	/	/	/	/
Cooling with recovery for versions (A) (E)															
40°C / 45°C - 7°C / 12°C	Cooling capacity	(6)	kW	46	52	58	69	74	87	103	111	134	148	169	203
	Recovered power	(6)	kW	58	67	75	88	95	111	132	143	175	194	219	262
	Total input power	(6)	kW	13,5	15,8	18,1	20,9	22,9	25,9	31,2	33,4	43,9	48,6	53,0	64,1
	Water flow rate system side	(6)	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925
	Pressure drop	(6)	kPa	29	41	24	33	26	36	40	44	42	52	62	81
	Water flow rate DHW side	(6)	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892
	Pressure drop	(6)	kPa	20	27	33	46	54	33	47	55	82	78	56	81
	TER		W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27

NRP - for 4-pipe system				0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling system side (A)															
12°C / 7°C	Cooling capacity	(1)	kW	/	/	/	/	/	/	100	103	123	140	159	184
	Total input power	(1)	kW	/	/	/	/	/	/	32,5	36,0	44,2	50,5	55,2	64,6
	EER	(1)		/	/	/	/	/	/	3,07	2,87	2,8	2,78	2,88	2,85
	ηsc	%		/	/	/	/	/	/	141,6	130,6	148,0	150,1	151,3	153,7
	SEER			/	/	/	/	/	/	3,62	3,34	3,78	3,83	3,86	3,92
	Water flow rate	(1)	l/h	/	/	/	/	/	/	17200	17900	21300	24252	27520	31800
	Pressure drop	(1)	kPa	/	/	/	/	/	/	37	39	37	48	56	67
Cooling system side (E)															
12°C / 7°C	Cooling capacity	(1)	kW	43	50	56	64	68	80	95	99	116	130	152	178
	Total input power	(1)	kW	14,0	16,6	18,9	20,9	23,3	27,1	35,2	39,0	48,4	55,5	61,9	70,6
	EER	(1)		3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52
	ηsc	%		148,2	146,5	147,7	145,0	146,5	157,1	138,1	128,5	143,6	145,7	146,9	147,5
	SEER			3,78	3,74	3,77	3,70	3,74	4,00	3,53	3,29	3,67	3,72	3,75	3,76
	Water flow rate	(1)	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867
	Pressure drop	(1)	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Heating system side (A) (E)															
40°C / 45°C	Heating capacity	(3)	kW	46	53	60	75	80	84	106	112	138	153	174	206
	Total input power	(3)	kW	13,2	15,5	17,7	22,4	24,0	25,6	32,5	35,0	41,3	45,7	53,5	62,4
	COP	(3)		3,49	3,44	3,4	3,37	3,35	3,3	3,27	3,22	3,33	3,35	3,25	3,3
	Water flow rate	(3)	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260
	Pressure drop	(3)	kPa	13	17	21	33	38	19	31	34	51	49	35	50
	Performance under average climatic conditions (Average)														
	Pdesignh	(4)		39	45	51	64	68	71	90	95	116	129	147	174
	SCOP	(4)		3,60	3,53	3,55	3,50	3,50	3,42	3,52	3,50	3,70	3,67	3,55	3,45
	ηs	(4)		141	138	139	137	137	134	138	137	145	144	139	141
	Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	/	/	/	/	/	/	/
Cooling with recovery for versions (A) (E)															
40°C / 45°C - 7°C / 12°C	Cooling capacity	(6)	kW	46	52	58	69	74	87	103	111	134	148	169	203
	Recovered power	(6)	kW	58	67	75	88	95	111	132	143	175	194	219	262
	Total input power	(6)	kW	13,5	15,8	18,1	20,9	22,9	25,9	31,2	33,4	43,9	48,6	53,0	64,1
	Water flow rate (cold side)	(6)	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925
	Pressure drop	(6)	kPa	29	41	24	33	26	36	40	44	42	52	62	81
	Water flow rate (hot side)	(6)	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892
	Pressure drop	(6)	kPa	20	27	33	46	54	33	47	55	82	78	56	81
	TER		W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27

Date (14511:2013) *** Only units configured for 2-pipe systems are certified by Eurovent**

(1) Water evaporator 12°C/7°C, External air 35°C (EUROVENT)

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u. (EUROVENT)

(3) Water Total Recovery 40°C/45°C.

(4) Efficiencies for low temperature applications (35°C)

(5) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

(6) Water Total Recovery 40°C/45°C, Water evaporator (7°C)

TER Global Efficincy

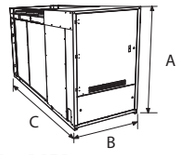
Technical Data

GENERAL DATA				0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electrical data															
Total input current	(1)	A	A	-	-	-	-	-	-	55	59	72	82	88	113
	(1)	E	A	28	33	38	41	45	52	60	64	79	91	99	120
Maximum current (FLA)	(1)	A/E	A	36	41	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)	(1)	A/E	A	119	150	155	184	190	200	214	220	232	243	261	320
Compressors															
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	2	2	2	2	2	2	3	3	4	4	4	4
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2
Capacity control			%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system															
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections		(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system															
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections		(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Fans standard															
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
			n°	6	6	6	8	8	8	2	2	2	2	3	3
Air flow rate		A	m^3/h	-	-	-	-	-	-	37000	37000	36500	36500	58000	48000
cooling mode		E	m^3/h	20000	20000	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Air flow rate heating mode			m^3/h	20000	20000	20000	26000	26000	26000	37000	37000	36500	36500	58000	48000
System integrated hydronic module															
Buffer tank			l.	300	300	300	300	300	300	500	500	500	500	500	700
Useful head			kPa	For more information, refer to the selection program or the technical documentation available											
Soud data (cooling mode)															
Sound pressure	(2)	A	dB(A)	-	-	-	-	-	-	50	50	50	51	53	53
	(2)	E	dB(A)	42	42	42	43	43	44	42	42	42	43	45	45
Sound power	(2)	A	dB(A)	-	-	-	-	-	-	82	82	82	83	85	85
	(2)	E	dB(A)	74	74	74	75	75	76	74	74	74	75	77	77
Power supply			V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

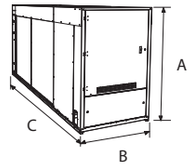
Sound power
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
(1) The electrical data of the versions without hydronic module integrated
(2) Calculated in cooling mode
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

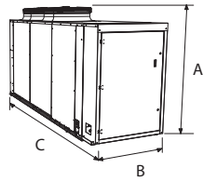
NRP 0200 ÷ 0280



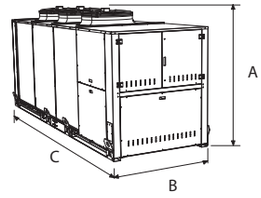
NRP 0300 ÷ 0350



NRP 0500 ÷ 0650



NRP 0700 ÷ 0750



Mod. NRP		Vers	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	(mm)	All	1606	1606	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	(mm)	All	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	(mm)	All	2700	2700	2700	3200	3200	3200	3342	3342	3342	3342	4342	4350
Weight when empty	(kg)		788	790	792	862	872	894	1233	1237	1359	1378	1591	1939

Cod.: SNRP0200-0750UY.09 /1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

AERMEC

NRP
0800/1800

Multipurpose
Air/Water for outdoor installation
Axial fans, scroll compressor
Cooling capacity199÷475kW
Heating capacity 242÷547kW

HFC
Refrigerant
R410A



• DESIGNED FOR 2 AND 4–PIPE SYSTEMS
• HIGH EFFICIENCY VERSION
• HIGH EFFICIENCY EVEN AT PART LOAD
• OPTION VERSION WITH BUILT–IN HYDRONIC KIT

Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems.** With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version
NRP_A Multipurpose high efficiency version
NRP_E Multipurpose high efficiency low noise version

- **Operational limits (1)**
- max. external air temperature 46°C Cooling mode
- Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Options for integrated hydronic modules with pumps:
- Pumps or only pumps
- expansion tank
- Safety valve
- Pressure gauge
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to –10 °C, and in heating mode with external temperatures up to 42 °C
- Microprocessor controls.
- Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
- Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
- Evaporating control in summer for heat pump operation
- Intelligent defrost control on drop of pressure
- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_PCO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **GP:** Protection grille protects the external coil from accidental damage.
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only
- **DRE**: Electronic soft starter which reduces starting current by about 26%.

Available only with 400V power supply.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NRP	Vers.	0800	0900	1000	1250	1404	1504	1655	1800
AER485P1	Alls	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•
MULTICHILLER_NRP	Alls	•	•	•	•	•	•	•	•
PGD1	Alls	•	•	•	•	•	•	•	•
GP	Alls	GP260	GP260	GP260	GP350	GP350	GP350	GP500	GP500
AVX (00)	Alls	704	710	716	719	725	730	734	737
AVX (P1-P2-P3-P4)	Alls	706	712	712	721	727	732	736	736
AVX (P1-R1÷P4-R4)	Alls	706	712	712	721	727	732	736	736
Accessories factory fitted only									
DRE (1)	Alls	801	901	1001	1251	1404	1504	1655	1801
RIF	Alls	88	90	92	92	92	92	93	94

(1) Only available for 400V/3/50Hz power supply

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field **Code**

1,2,3 **NRP**

4,5,6,7 **Size**

0800-0900-1000-1250-1404-1504-1655-1800

8 **Version**

A High efficiency

E High efficiency in low noise operation

9 **System type**

2 2-pipe system (cooling + DHW heating)

4 4-pipe system (cooling + heating)

10 **Coil**

° In aluminium

R In copper

S In tinned copper

V Coated aluminium (epoxy paint)

11 **Fans**

° Standard

J High static pressure Inverter

12 **Power supply**

° 400V/3/50Hz with circuit breakers

13-14 **System integrated hydronic module**

00 without pumps

P1 n°1 low head pump

P2 n°2 low head pump

P3 n°1 high head pump

P4 n°2 high head pump

15-16 **Heat recovery integrated hydronic module**

00 without pumps

R1 n°1 low head pump

R2 n°2 low head pump

R3 n°1 high head pump

R4 n°2 high head pump

NRP	NRP 0800 … 1000 Heat recovery integrated hydronic module					
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	n.d.	ok	n.d.
	P1	ok	ok	n.d.	ok	n.d.
	P2	ok	ok	n.d.	ok	n.d.
	P3	ok	ok	n.d.	ok	n.d.
	P4	ok	ok	n.d.	ok	n.d.

NRP	NRP 1250 … 1800 Heat recovery integrated hydronic module					
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	ok	ok	ok
	P1	ok	ok	ok	ok	ok
	P2	ok	ok	ok	ok	ok
	P3	ok	ok	ok	ok	ok
	P4	ok	ok	ok	ok	ok

nd = not available

Technical Data

NRP - for 2-pipe system *				0800	0900	1000	1250	1404	1504	1655	1800
	V/Ph/Hz						400V/3N/50Hz				
Cooling system side (A)											
12°C / 7°C	Cooling capacity	(1)	kW	217	242	259	321	363	400	439	475
	Total input power	(1)	kW	73,5	83,4	89,4	109,4	122,6	136,7	147,2	157,9
	EER	(1)		2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	ESEER	(1)		4,01	3,90	3,82	3,96	3,80	3,72	3,74	3,71
	ηsc	%		160,1	154,0	155,9	155,9	158,7	161,7	152,0	153,7
	SEER			4,08	3,93	3,97	3,97	4,04	4,12	3,88	3,92
	Water flow rate	(1)	l/h	37498	41796	44753	55556	62852	69171	75888	81966
	Pressure drop	(1)	kPa	59	58	54	64	52	53	55	55
Cooling system side (E)											
12°C / 7°C	Cooling capacity	(1)	kW	199	216	229	290	331	367	400	428
	Total input power	(1)	kW	81,2	95,2	101,3	121,8	135,6	150,6	163,1	176,7
	EER	(1)		2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
	ESEER	(1)		3,92	3,87	3,78	3,93	3,77	3,66	3,72	3,74
	ηsc	%		154,7	150,5	152,6	155,5	157,4	157,1	150,5	152,0
	SEER			3,94	3,84	3,89	3,96	4,01	4,00	3,84	3,88
	Water flow rate	(1)	l/h	34477	37289	39609	50044	57122	63288	69115	73977
	Pressure drop	(1)	kPa	50	47	43	54	43	44	46	45
Heating system side (A) (E)											
40°C / 45°C	Heating capacity	(2)	kW	242	259	292	387	402	461	506	547
	Total input power	(2)	kW	74,7	81,1	89,4	117,2	121,5	140,0	155,7	167,5
	COP	(2)		3,25	3,20	3,26	3,30	3,31	3,30	3,25	3,27
	Water flow rate	(2)	l/h	41452	44312	49946	66115	68833	78870	86579	93555
	Pressure drop	(2)	kPa	72	66	68	93	63	68	72	72
Heating DHW side (A) (E)											
40°C / 45°C	Heating capacity	(3)	kW	242	259	291	385	401	460	505	546
	Total input power	(3)	kW	74,3	80,7	89,0	116,0	121,0	139,5	155,0	166,8
	COP	(3)		3,26	3,21	3,27	3,32	3,32	3,3	3,26	3,27
	Water flow rate	(3)	l/h	41452	44312	49946	66048	68833	78870	86579	93555
	Pressure drop	(3)	kPa	50	44	49	49	44	51	51	53
	Performance under average climatic conditions (Average) Efficiency Energy Class in according to regulation n°813/2013 Pdesignh ≤ 400kW										
	Pdesignh	(4)		204	219	246	3.26	339	389	/	/
	SCOP	(4)		3,60	3,60	3,60	3,70	3,75	3,72	/	/
	ηs	(4)		141	141	141	145	147	146	/	/
Cooling with recovery for versions (A) (E)											
40°C / 45°C - 7°C / 12°C	Cooling capacity	(5)	kW	46	52	58	69	74	87	103	111
	Recovered power	(5)	kW	58	67	75	88	95	111	132	143
	Total input power	(5)	kW	13,5	15,8	18,1	20,9	22,9	25,9	31,2	33,4
	Water flow rate system side	(5)	l/h	7852	9040	10040	11868	12745	15000	17800	19195
	Pressure drop	(5)	kPa	29	41	24	33	26	36	40	44
	Water flow rate DHW side	(5)	l/h	9976	11520	12900	15136	16340	19092	22704	24424
	Pressure drop	(5)	kPa	20	27	33	46	54	33	47	55
	TER		W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62

NRP - for 4-pipe system				0800	0900	1000	1250	1404	1504	1655	1800
Cooling system side (A)											
12°C / 7°C	Cooling capacity	(1)	kW	217	242	259	321	363	400	439	475
	Total input power	(1)	kW	73,5	83,4	89,4	109,4	122,6	136,7	147,2	157,9
	EER	(1)		2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	ηsc	%		160,1	154,0	155,9	155,9	158,7	161,7	152,0	153,7
	SEER			4,08	3,93	3,97	3,97	4,04	4,12	3,88	3,92
	Water flow rate	(1)	l/h	37498	41796	44753	55556	62852	69171	75888	81966
	Pressure drop	(1)	kPa	59	58	54	64	52	53	55	55
Cooling system side (E)											
12°C / 7°C	Cooling capacity	(1)	kW	199	216	229	290	331	367	400	428
	Total input power	(1)	kW	81,2	95,2	101,3	121,8	135,6	150,6	163,1	176,7
	EER	(1)		2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
	ηsc	%		154,7	150,5	152,6	155,5	157,4	157,1	150,5	152,0
	SEER			3,94	3,84	3,89	3,96	4,01	4,00	3,84	3,88
	Water flow rate	(1)	l/h	34477	37289	39609	50044	57122	63288	69115	73977
	Pressure drop	(1)	kPa	50	47	43	54	43	44	46	45
Riscaldamento lato impianto versioni (A) (E)											
40°C / 45°C	Heating capacity	(3)	kW	242	259	291	385	401	460	505	546
	Total input power	(3)	kW	74,3	80,7	89,0	116,0	121,0	139,5	155,0	166,8
	COP	(3)		3,26	3,21	3,27	3,32	3,32	3,3	3,26	3,27
	Water flow rate	(3)	l/h	41452	44312	49946	66048	68833	78870	86579	93555
	Pressure drop	(3)	kPa	50	44	49	49	44	51	51	53
	Performance under average climatic conditions (Average) Efficiency Energy Class in according to regulation n°813/2013 Pdesignh ≤ 400kW										
	Pdesignh	(4)		204	219	246	3.26	339	389	/	/
	SCOP	(4)		3,60	3,60	3,60	3,70	3,75	3,72	/	/
	ηs	(4)		141	141	141	145	147	146	/	/
Cooling with recovery for versions (A) (E)											
40°C / 45°C - 7°C / 12°C	Cooling capacity	(5)	kW	226	254	282	339	384	428	470	503
	Recovered power	(5)	kW	291	330	366	434	493	552	601	645
	Total input power	(5)	kW	68,92	80,24	89,65	102	116,23	132,97	140,38	151,76
	Water flow rate (cold side)	(5)	l/h	38924	43834	48556	58291	66151	73685	80797	86568
	Pressure drop	(5)	kPa	63	64	63	70	57	60	62	61
	Water flow rate (hot side)	(5)	l/h	49708	56417	62609	74305	84453	94601	102857	110425
	Pressure drop	(5)	kPa	72	72	78	63	66	73	72	74
	TER		W/W	7,5	7,29	7,23	7,58	7,55	7,38	7,63	7,57

Date (14511:2013) *** Only units configured for 2-pipe systems are certified by Eurovent**

(1) Water evaporator 12°C/7°C, External air 35°C (EUROVENT)

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u. (EUROVENT)

(3) Water Total Recovery 40°C/45°C.

(4) Efficiencies for low temperature applications(35°C)

(5) Water Total Recovery 40°C/45°C, Water evaporator (7°C)

TER Global Efficincy

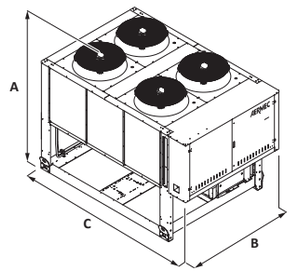
Technical Data

GENERAL DATA				0800	0900	1000	1250	1404	1504	1655	1800
Electrical data											
Total input current	(1)	A	A	136	158	180	196	235	273	289	304
	(1)	E	A	145	169	192	211	251	292	306	324
Maximum current (FLA)	(1)	A/E	A	173	195	217	267	296	325	365	398
Starting current (LRA)	(1)	A/E	A	348	404	426	535	505	534	633	666
Compressors											
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	4	4	4	4	4	4	5	6
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control			%								
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system											
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1
hydraulic connections		(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system											
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate
			n°	2	2	2	2	2	2	2	2
hydraulic connections		(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	4	4	4	6	6	6	8	8
Air flow rate		A	m^3/h	85600	84600	83600	126000	124200	122400	168000	165600
cooling mode		E	m^3/h	59920	59220	60610	88200	90000	91800	117600	115920
Air flow rate heating mode			m^3/h	85600	84600	83600	126000	124200	122400	168000	165600
System integrated hydronic module											
Useful head			kPa	For more information, refer to the selection program or the technical documentation							
Sound data (cooling mode)											
Sound pressure	(2)	A	dB(A)	56,5	56,5	56,5	59,5	59	58,5	60	62
	(2)	E	dB(A)	51	51	51	54	53,5	53	54,5	56,5
Sound power	(2)	A	dB(A)	88,5	88,5	88,5	91,5	91	91,5	92	94
	(2)	E	dB(A)	83	83	83,5	86	85,5	85	86,5	88,5
Power supply			V/ph/Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz

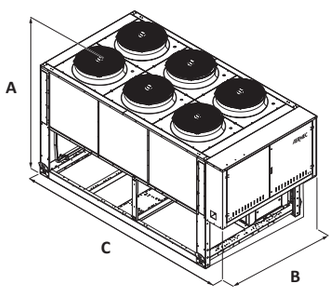
Sound power
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
(1) The electrical data of the versions without hydronic module integrated
(2) Calculated in cooling mode
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

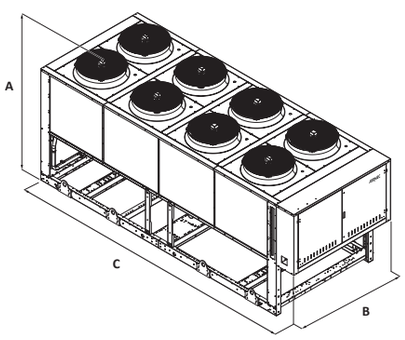
NRP0800-1000



NRP1250-1504



NRP1655-1800



Mod. NRP		Vers	0800	0900	1000	1250	1404	1504	1655	1800
A	(mm)	Alls	2450	2450	2450	2450	2450	2450	2450	2450
B	(mm)	Alls	2200	2200	2200	2200	2200	2200	2200	2200
C	(mm)	Alls	3400	3400	3400	4250	4250	4250	5750	5750
Weight when empty	(kg)		2270	2460	2640	2970	3220	3430	3950	4090

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
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www.aermec.com

Cod.: SNRP0800-1800UY.06 / 1712

NRP
0800/1800

Multipurpose
Air/Water for outdoor installation
Axial fans, scroll compressor
Cooling capacity199÷475kW
Heating capacity 242÷547kW

HFC
Refrigerant
R410A



- **DESIGNED WITH SHELL&TUBE FOR 4–PIPE SYSTEMS**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT–IN HYDRONIC KIT**

Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **4-pipe systems.** With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version

NRP_A Multipurpose high efficiency version
NRP_E Multipurpose high efficiency low noise version

- **Operational limits (1)**
- max. external air temperature 46°C Cooling mode
- Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- Standard differential pressure switch on both sides (Hot / Cold).
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to –10 °C, and in heating mode with external temperatures up to 42 °C
- Microprocessor controls.
  - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
  - Evaporating control in summer for heat pump operation
  - Intelligent defrost control on drop of pressure
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET** :The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_PCO**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **GP:** Protection grille protects the external coil from accidental damage.
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current by about 26%.

Available only with 400V power supply.

- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NRP		Vers.	0800	0900	1000	1250	1404	1504	1655	1800
AER485P1		Alls	•	•	•	•	•	•	•	•
AERWEB300		Alls	•	•	•	•	•	•	•	•
MULTICHILLER_NRP		Alls	•	•	•	•	•	•	•	•
PGD1		Alls	•	•	•	•	•	•	•	•
GP		Alls	GP260	GP260	GP260	GP350	GP350	GP350	GP500	GP500
AVX (00)		Alls	704	710	716	719	725	730	734	737
AVX (P1-P2-P3-P4)		Alls	706	712	712	721	727	732	736	736
AVX (P1-R1÷P4-R4)		Alls	706	712	712	721	727	732	736	736
Accessories factory fitted only										
DRE	(1)	Alls	801	901	1001	1251	1404	1504	1655	1801
RIF		Alls	88	90	92	92	92	92	93	94

(1) Only available for 400V/3/50Hz power supply

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	**NRP**
4,5,6,7	**Size**
	0800-0900-1000-1250-1404-1504-1655-1800
8	**Version**
	A High efficiency
	E High efficiency in low noise operation
9	**System type**
	4 4-pipe system (cooling + heating)
10	**Coil**
	° In aluminium
	R In copper
	S In tinned copper
	V Coated aluminium (epoxy paint)
11	**Fans**
	° Standard
	J High static pressure Inverter
12	**Power supply**
	° 400V/3/50Hz with circuit breakers
13-14	**System integrated hydronic module**
	00 without pumps

Technical Data

NRP - for 4-pipe system				0800	0900	1000	1250	1404	1504	1655	1800
Cooling system side (A)											
12°C / 7°C	Cooling capacity	(1)	kW	217	242	259	321	363	400	439	475
	Total input power	(1)	kW	73,5	83,4	89,4	109,4	122,6	136,7	147,2	157,9
	EER	(1)		2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	ηsc	%		160,1	154,0	155,9	155,9	158,7	161,7	152,0	153,7
	SEER			4,08	3,93	3,97	3,97	4,04	4,12	3,88	3,92
	Water flow rate	(1)	l/h	37498	41796	44753	55556	62852	69171	75888	81966
	Pressure drop	(1)	kPa	59	58	54	64	52	53	55	55
Cooling system side (E)											
12°C / 7°C	Cooling capacity	(1)	kW	199	216	229	290	331	367	400	428
	Total input power	(1)	kW	81,2	95,2	101,3	121,8	135,6	150,6	163,1	176,7
	EER	(1)		2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
	ηsc	%		154,7	150,5	152,6	155,5	157,4	157,1	150,5	152,0
	SEER			3,94	3,84	3,89	3,96	4,01	4,00	3,84	3,88
	Water flow rate	(1)	l/h	34477	37289	39609	50044	57122	63288	69115	73977
	Pressure drop	(1)	kPa	50	47	43	54	43	44	46	45
Heating system side (A) (E)											
40°C / 45°C	Heating capacity	(2)	kW	242	259	291	385	401	460	505	546
	Total input power	(2)	kW	74,3	80,7	89,0	116,0	121,0	139,5	155,0	166,8
	COP	(2)		3,26	3,21	3,27	3,32	3,32	3,3	3,26	3,27
	Water flow rate	(2)	l/h	41452	44312	49946	66048	68833	78870	86579	93555
	Pressure drop	(2)	kPa	50	44	49	49	44	51	51	53
	Performance under average climatic conditions (Average)										
	Pdesignh	(3)		204	219	246	3.26	339	389	/	/
	SCOP	(3)		3,60	3,60	3,60	3,70	3,75	3,72	/	/
	ηs	(3)		141	141	141	145	147	146	/	/
Cooling with recovery for versions (A) (E)											
40°C / 45°C - 7°C / 12°C	Cooling capacity	(4)	kW	226	254	282	339	384	428	470	503
	Recovered power	(4)	kW	291	330	366	434	493	552	601	645
	Total input power	(4)	kW	68,92	80,24	89,65	102	116,23	132,97	140,38	151,76
	Water flow rate (cold side)	(4)	l/h	38924	43834	48556	58291	66151	73685	80797	86568
	Pressure drop	(4)	kPa	63	64	63	70	57	60	62	61
	Water flow rate (hot side)	(4)	l/h	49708	56417	62609	74305	84453	94601	102857	110425
	Pressure drop	(4)	kPa	72	72	78	63	66	73	72	74
	TER		W/W	7,5	7,29	7,23	7,58	7,55	7,38	7,63	7,57

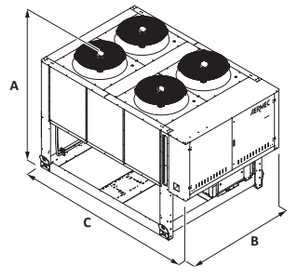
Date (14511:2013) *** Only units configured for 2-pipe systems are certified by Eurovent**
(1) Water evaporator 12°C/7°C, External air 35°C (EUROVENT)
(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u. (EUROVENT)
(3) Efficiencies for low temperature applications (35°C)
(4) Water Total Recovery 40°C/45°C, Water evaporator (7°C)
TER Global Efficincy

GENERAL DATA				0800	0900	1000	1250	1404	1504	1655	1800
Electrical data											
Total input current	(1)	A	A	136	158	180	196	235	273	289	304
	(1)	E	A	145	169	192	211	251	292	306	324
Maximum current (FLA)	(1)	A/E	A	173	195	217	267	296	325	365	398
Starting current (LRA)	(1)	A/E	A	348	404	426	535	505	534	633	666
Compressors											
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	4	4	4	4	4	4	5	6
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control			%								
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side cold											
Exchanger			type	Shell&tube							
			n°	1	1	1	1	1	1	1	1
hydraulic connections		(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"
Exchanger side hot											
Exchanger			type	Shell&tube							
			n°	2	2	2	2	2	2	2	2
hydraulic connections		(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	4	4	4	6	6	6	8	8
Air flow rate		A	m^3/h	85600	84600	83600	126000	124200	122400	168000	165600
cooling mode		E	m^3/h	59920	59220	60610	88200	90000	91800	117600	115920
Air flow rate heating mode			m^3/h	85600	84600	83600	126000	124200	122400	168000	165600
Sound data (cooling mode)											
Sound pressure	(2)	A	dB(A)	56,5	56,5	56,5	59,5	59	58,5	60	62
	(2)	E	dB(A)	51	51	51	54	53,5	53	54,5	56,5
Sound power	(2)	A	dB(A)	88,5	88,5	88,5	91,5	91	91,5	92	94
	(2)	E	dB(A)	83	83	83,5	86	85,5	85	86,5	88,5
Power supply			V/ph/Hz	400V/3/50Hz							

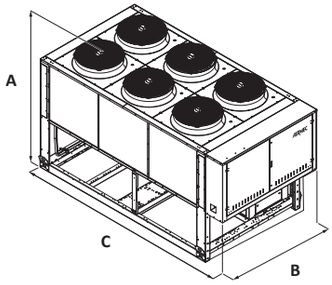
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
(1) The electrical data of the versions without hydronic module integrated
(2) Calculated in cooling mode
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)

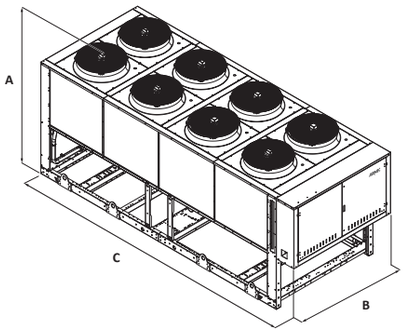
NRP0800-1000



NRP1250-1504



NRP1655-1800



Mod. NRP		Vers	0800	0900	1000	1250	1404	1504	1655	1800
A	(mm)	Alls	2450	2450	2450	2450	2450	2450	2450	2450
B	(mm)	Alls	2200	2200	2200	2200	2200	2200	2200	2200
C	(mm)	Alls	3400	3400	3400	4250	4250	4250	5750	5750
Weight when empty	(kg)		2270	2460	2640	2970	3220	3430	3950	4090

Cod.: SNRP0800-1800UY.07 / 1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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www.aermec.com

NXP

Multipurpose
Water/Water for indoor installation
scroll compressor plate exchanger
Cooling capacity 109 - 501kW
Heating capacity 123 - 560kW

HFC
Refrigerant
R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participate in the EUROVENT program: LCP
the products are present on the site
www.eurovent-certification.com



• DESIGNED FOR 2 AND 4–PIPE SYSTEMS
• HIGH EFFICIENCY EVEN AT PART LOAD
• OPTION VERSION WITH BUILT–IN HYDRONIC KIT

Characteristics

NXP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems.** With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version
NXP_° Multipurpose standard
NXP_L Multipurpose Low noise

- **Operational limits (1)**
- Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High and low pressure transducers as standard
- The built-in hydronic module includes the main water circuit components; it is available in varius configurations with one or two pumps with high or low head both on the system side and recovery side.
- Microprocessor controls
  - Control from the leaving water temperature
  - Automatic rotation of compressors and pumps based on operating hours
  - Programmable time-clock
  - Analog Inputs Multifunction 0-10V, or da 4-20mA
- Load limiting safety control
- Electrical panel with wires numbered all the main components of security and control
- Externally mounted user interface with display of all operating parameters in 4 languages
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERNET:** the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- MULTICHILLER_NRP: Control system to switch the individual multipurpose on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000..
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current.
  Available only with 400V power supply.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NXP		Vers.	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
AER485P1		All	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET		All	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		All	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		All	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	All	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only															
DRE	(2)	All	501	551	601	651	701	751	801	901	1001	1251	1401	1401	1401
RIF		All	98	98	95	95	95	95	95	96	97	97	97	97	97

(1) Contact us for the compatibility
(2) Only available for 400V/3N/50Hz power supply

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	**NXP**
4,5,6,7	**Size**
	0500-0550-0600-0650-0700-0750-0800-0900-1000-1250-1400-1500-1650
8	**Field of use:**
°	standard thermostatic expansion valve (3)
9	**System type**
2	2-pipe system (cooling + DHW heating)
4	4-pipe system (cooling + heating)
10	**Version**
°	Standard
L	Low noise
11	**Power supply**
°	400V/3N/50Hz with circuit breakers
4	220V/3/50Hz with circuit breakers (4)
5	500V/3/50Hz with circuit breakers (5)
12	**System integrated hydronic module**
°	without pumps or buffer tank
M	n°1 low head pump
N	n°2 low head pumps
O	n°1 high head pump
P	n°2 high head pumps
13	**Heat recovery integrated hydronic module**
°	without pumps or buffer tank
U	n°1 low head pump
V	n°2 low head pumps
W	n°1 high head pump
Z	n°2 high head pumps

(3) leaving water above +4 °C
(4) Only size 0500÷0700
(5) Only size 0800÷1000

Technical Data

NXP - Multipurpose for 2-pipe system *			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
V/Ph/Hz			400V/3/50Hz												
Cooling system side (°) (L)															
12°C / 7°C Cooling capacity	(1)	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	(1)	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	(1)		4,51	4,46	4,56	4,47	4,51	4,46	4,5	4,49	4,61	4,56	4,6	4,54	4,54
ESEER	(1)		5,84	5,78	5,84	5,8	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	(1)	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Pressure drop	(1)	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate source side	(1)	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Pressure drop	(1)	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Cooling mode for low temperature										(UE n° 2016/2281)					
ηsc		%	202,0	209,5	212,9	209,1	212,6	207,5	216,2	207,5	225,5	224,4	224,9	227,8	227,8
SEER			5,25	5,44	5,52	5,43	5,52	5,39	5,61	5,39	5,84	5,81	5,82	5,90	5,90
Heating system side (°) (L)															
40°C / 45°C Heating capacity	(2)	kW	123	131	159	176	211	240	289	321	353	384	434	491	551
Total input power	(2)	kW	29	32	38	43	51	59	70	78	83	91	102	117	130
COP	(2)		4,17	4,13	4,16	4,11	4,12	4,06	4,12	4,1	4,25	4,23	4,25	4,19	4,22
Water flow rate system side	(2)	l/h	21013	22491	27168	30160	36076	40998	49658	55144	60599	65943	74492	84108	94416
Pressure drop	(2)	kPa	27	31	34	41	49	57	24	29	22	26	30	38	40
Water flow rate source side	(2)	l/h	27248	29109	35220	38994	46709	52918	64027	71019	78774	85679	96918	109091	122810
Pressure drop	(2)	kPa	36	40	39	47	51	56	40	48	36	44	50	63	67
Heating DHW side (°) (L)															
40°C / 45°C Heating capacity	(3)	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	(3)	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	(3)		4,26	4,21	4,26	4,21	4,2	4,17	4,2	4,16	4,27	4,29	4,3	4,23	4,26
Water flow rate recovery side	(3)	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Pressure drop	(3)	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate source side	(3)	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Pressure drop	(3)	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery (°) (L)															
40°C / 45°C - 7°C Cooling capacity	(4)	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	(4)	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	(4)	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77	82,3	89,8	101,2	116	129,6
Water flow rate system side	(4)	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Pressure drop	(4)	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate recovery side	(4)	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Pressure drop	(4)	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER		W/W	7,6	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,8	7,67	7,7	7,81

*** Only units configured for 2-pipe systems are certified by Eurovent**

NXP - for 4-pipe system			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
V/Ph/Hz			400V/3/50Hz												
Cooling system side (°) (L)															
12°C / 7°C Cooling capacity	(1)	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	(1)	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	(1)		4,51	4,46	4,56	4,47	4,51	4,46	4,5	4,49	4,61	4,56	4,6	4,54	4,54
ESEER	(1)		5,84	5,78	5,84	5,8	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	(1)	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Pressure drop	(1)	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate source side	(1)	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Pressure drop	(1)	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Cooling mode for low temperature										(UE n° 2016/2281)					
ηsc		%	202,0	209,5	212,9	209,1	212,6	207,5	216,2	207,5	225,5	224,4	224,9	227,8	227,8
SEER			5,25	5,44	5,52	5,43	5,52	5,39	5,61	5,39	5,84	5,81	5,82	5,90	5,90
Heating system side (°) (L)															
40°C / 45°C Heating capacity	(2)	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	(2)	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	(2)		4,26	4,21	4,26	4,21	4,2	4,17	4,2	4,16	4,27	4,29	4,3	4,23	4,26
Water flow rate recovery side	(2)	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Pressure drop	(2)	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate source side	(2)	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Pressure drop	(2)	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery (°) (L)															
40°C / 45°C - 7°C Cooling capacity	(4)	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	(4)	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	(4)	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77	82,3	89,8	101,2	116	129,6
Water flow rate system side	(4)	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Pressure drop	(4)	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate recovery side	(4)	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Pressure drop	(4)	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER		W/W	7,6	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,8	7,67	7,7	7,81

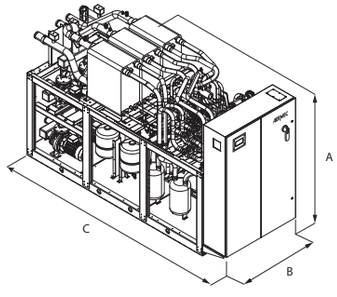
Date (14511:2013)
(1) Water consumption 12°C/7°C, Water source 30°C/35°C (EUROVENT)
(2) Water consumption 40°C/45°C, Water source 10°C/7°C (EUROVENT)
(4) Water total recovery 40°C/45°C, Water consumption (out) 7°C
TER Global Efficincy

Technical Data

GENERAL DATA				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data only cooling mode																
Total input current	(7)		A	47	50	58	65	83	90	92	100	106	135	149	169	188
only heating mode																
Total input current	(7)		A	54	58	68	76	95	103	112	123	130	154	173	196	217
only recovery mode																
Total input current	(7)		A	54	57	67	75	94	103	110	122	129	153	171	194	216
Cooling heat recovery mode																
Total input current	(7)		A	54	57	67	75	95	103	110	121	129	153	171	195	216
Maximum current (FLA)	(7)		A	71	77	91	102	124	135	163	179	195	208	237	266	295
Starting current (LRA)	(7)		A	214	220	206	216	267	323	332	340	356	459	488	600	629
Compressors																
Compressors			type	scroll												
			n°	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant				R410A												
Exchanger Plant (hot/cold) 2 pipe system / Plant (cold) 4 pipe system																
Exchanger			type	plate												
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger Recovery (DHW) 2 pipe system / Plant (hot) 4 pipe system																
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger Source side																
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
System integrated hydronic module	For more information, refer to the selection program Magellan or the technical documentation available															
Sound data (Cooling mode)																
Sound pressure	(8)	°	dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	60
	(8)	L	dB(A)	40	41	41	42	44	48	50	50	50	52	52	54	54
Sound power	(8)	°	dB(A)	78	79	79	80	82	86	88	88	88	90	90	92	92
	(8)	L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	86

Sound power
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
(7)The technical data are versions without hydronic module integrated
(8) Calculated in cooling mode
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)



Mod. NXP (without pumps)		Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
A	(mm)	°	1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
B	(mm)		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
C	(mm)		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600

Mod. NXP (with pumps)		Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
A	(mm)	°	1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
B	(mm)		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
C	(mm)		3452	3452	3452	3452	3452	3452	3452	3452	3750	3750	3750	3750	3750

Cod.: SNXPUY.03 /1712

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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PRECISION AIR CONDITIONERS

Aermec is well established in the data centre market, with a multiple year experience and prestigious projects aimed at reducing the overall cost of ownership of modern data centres. This process is achieved by applying state of the art product solutions with a strong focus on integrated design and sophisticated analyses of individual data centre customer requirements, with the aim of achieving a personalised and optimised solution for each and every individual installation site.

PRECISION AIR CONDITIONING

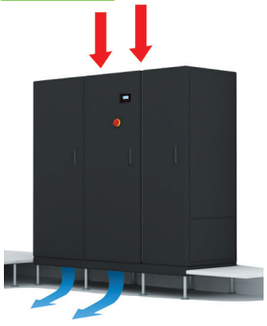
		Air flow rate (m^3/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
P	Direct expansion (air or water cooled); chilled water	-	7,7-186,9	-	480
G	Direct expansion (air or water cooled); chilled water	-	43,0-183,5	-	484
R (in Rack)	Direct expansion (air or water cooled); chilled water	-	20,3-36,2	-	488
UFB20	Booster unit for floating floor installation	140-740	-	-	492

P
10/932

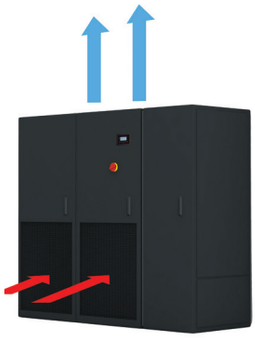
Precision Air Conditioners:

X air or water-condensed direct expansion
W chilled water
Cooling capacity 7÷187kW

HFC
Refrigerant
R410A



Downflow



Upflow





Last generation control panel.

- **STRICT CONTROL OF ROOM TEMPERATURE AND HUMIDITY.**
- **A HIGH RATIO OF COOLING POWER AND FOOTPRINT, WHICH FACILITATES THE DESIGN OF THE ROOMS TO BE AIR-CONDITIONED.**
- **HIGH ENERGY EFFICIENCY VALUES, RESULTING IN LOWER CO2 EMISSIONS IN THE ENVIRONMENT AND IN PARTICULARLY LOW OPERATING COSTS.**

FEATURES

P series precision air conditioning units have design and operational features suitable for rooms where sensible nature heat loads are prevailing.

CONFIGURATIONS

PXO: upwards flow air conditioners with direct expansion with air or water condensation.
PWO: upwards flow air conditioners with chilled water.
PXU: downwards flow air conditioners with direct expansion with air or water condensation.
PWU: downwards airflow air conditioners with chilled water.

FEATURES

The **P** series precision air conditioning units are designed for precision air conditioning of technological rooms characterized by elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required.
Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.
In order to guarantee the maximum reliability and flexibility, there are available both solutions with double circuit and solution with different cooling mediums:
• TWO SOURCES: The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency.
This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the primary one. They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.
• FREE COOLING: This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler. The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.
These coolers are designed and optimized for working with refrigerant R410A, which is not dangerous for the ozone.

STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

COILS

Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with aluminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

COMPRESSORS

High efficiency scroll compressor with low power consumption. In dual circuit configuration you can control the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.

FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).
Differential pressure switch (STANDARD) for dirty filter alarm.

ELECTRONIC REGULATION

Thanks to the control via Modbus®Master protocol all major components of the units have a continuous supervision, with over 50 different variables that provide real-time monitoring of all operating cycles.
Thanks to specific functions dedicated to energy saving and optimized management of all unit operating cycles, both with direct expansion and with chilled water.
Thanks to the integrated RS485 Modbus® board, and to an interface gateway BACnet, LonWorks and SNMP, a simple and fast interface to supervision systems and BMS (Building Management System) is possible.
View of all operating parameters in 8 languages.

ACCESSORIES

DIRECT EXPANSION
- DC brushless compressors with inverter control
- Electric power supply line for remote condenser
- Electric power supply line with speed adjustment for remote condenser
- Condenser adjustment with 0-10V signal for remote condenser with EC fans
- "LT Kit" for external air low temperature functioning with remote condenser
- Increased liquid receiver
- Non-return valves on the flow and liquid lines
- Water condenser
- Water condenser with valve for adjusting the condensation temperature
- "HT Kit" for functioning with high condensation temperatures

CHILLED WATER:
- Two ways modulating valves
- Inlet and outlet water temperature probes
- "Power Valve" Kit

HEATING:
- Low thermal inertia electric batteries with differentiated stages regulation
- Low thermal inertia electric batteries with modulating regulation (available on request on some models only)
- Water heating batteries with 2 or 3 ways modulating valve (available on request on some models only)

HUMIDIFICATION:
- Room humidity probe
- Flow humidity probe
- Immersed electrode humidifier

MECHANICALS AND STRUCTURAL:
- Condensation drain pump
- Condensation and humidifier drain pump
- Flow overpressure dampers
- M5 (EU5) efficiency air filter on air supply
- Soundproofed duct piece on flow
- Flow plenum with adjustable grills.
- Height adjustable support for raised floor installation
- Grilled panels for front flow
- Closed panels for downwards air intake
- Panels with "sandwich" counter-panels (available on request on some models only)
- Panels with increased soundproof upholstery (available on request on some models only)

ELECTRICAL:
- Alternative available voltages: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Electric power supply line without neutral
- "Basic" version automatic transfer switch (ATS)
- "Advanced" version automatic transfer switch (ATS)

ADJUSTMENT:
- Constant flow rate ventilation adjustment
- Constant pressure ventilation adjustment
- Local area network configuration and cable
- User terminal for remote installation
- Flooding detection system

Note: For further information, refer to the selection program.

SMARTNET

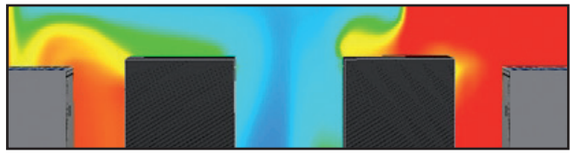
The innovative **SMARTNET** system revolutionises the local area network concept.
This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.

Compared to Duty Stand-by latent redundancy system (n+1 or n+n) where backup units were still waiting for the emergence of a problem, the **SMARTNET system allows maintaining the units connected on the network always active.**

DUTY / STAND-BY



On 100% On 100% Stand-by

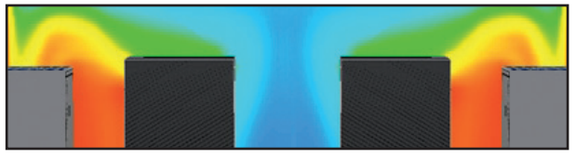


On 100% Stand-by

SMARTNET



On 66% On 66% On 66%



On 60% On 60%

TECHNICAL DATA

PXO: upwards airflow - direct expansion with air or water condensation

Sizes			71	141	211	251	301	302	361	422	461	512	662	852	932
Total cooling capacity	(1)	kW	7,8	14,9	21,3	26,8	33,6	30,9	37,8	43,7	48,1	54,2	67,3	90,1	93,3
Sensitive cooling capacity	(1)	kW	7,6	13,4	21,3	25,6	31,7	30,6	37,8	43,7	47,9	52,8	64,8	77,0	85,0
EER	(2)		3,71	3,37	3,15	3,18	3,08	3,2	3,30	3,27	3,43	3,25	3,13	3,33	3,53
Centrifugal		type	Plug fan EC												
Air flow rate		m3/h	2200	3200	7000	7000	8700	8700	14500	14500	14500	14500	17900	17900	20700
Sound data															
Sound Pressure	(3)	dB(A)	51	57	62	62	60	60	65	65	65	65	62	62	60
Possible configurations															
Free Cooling							•	•					•	•	
Two Sources					•		•	•					•	•	

PWO: upwards airflow - with chilled water

Sizes			10	20	30	50	80	110	160	220
Total cooling capacity	(1)	kW	10,0	18,0	32,4	43,6	66,8	80,2	121,9	160,3
Sensitive cooling capacity	(1)	kW	9,2	15,4	29,8	38,1	62,1	72,0	109,7	144,0
EER	(2)		34,42	28,52	22,83	21,48	23,95	24,29	23,62	24,29
Centrifugal		type	Plug fan EC							
Air flow rate		m3/h	2200	3200	7400	8200	15400	17000	26000	34000
Sound data										
Sound Pressure	(3)	dB(A)	51	57	63	59	66	62	64	65
Possible configurations										
Free Cooling						•		•	•	
Two Sources						•		•	•	

PXU: downwards airflow - direct expansion with air or water condensation

Sizes			71	141	211	251	301	302	361	422	461	512	662	852	932
Total cooling capacity	(1)	kW	7,7	14,5	20,8	25,3	31,2	30,6	36,6	42,7	46,9	51,6	67,7	87,3	94,2
Sensitive cooling capacity	(1)	kW	7,4	12,8	20,8	22,7	30,3	30,1	36,6	42,7	45,3	47,4	64,5	73,2	85,4
EER	(2)		3,69	3,36	3,12	3,06	3,13	3,2	3,24	3,22	3,37	3,14	3,25	3,29	3,59
Centrifugal		type	Plug fan EC												
Air flow rate		m3/h	2200	3200	7000	7000	8700	8700	14500	14500	14500	14500	17900	17900	20700
Sound data															
Sound Pressure	(3)	dB(A)	51	57	62	62	60	60	65	65	65	65	62	62	60
Possible configurations															
Free Cooling							•	•					•	•	
Two Sources					•		•	•					•	•	

PWU: downwards airflow - with chilled water

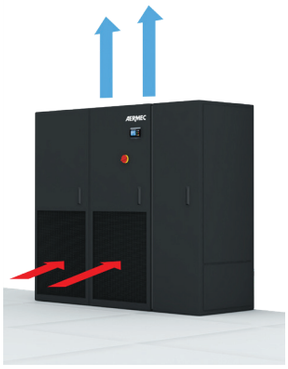
Sizes			10	20	30	50	80	110	160	220
Total cooling capacity	(1)	kW	10,2	18,1	32,4	43,6	67,4	93,4	142,1	186,9
Sensitive cooling capacity	(1)	kW	9,2	15,5	29,8	38,1	62,5	80,7	122,9	161,3
EER	(2)		34,42	29,24	22,83	21,48	24,16	24,02	23,33	24,02
Centrifugal		type	Plug fan EC							
Air flow rate		m3/h	2200	3200	7400	8200	15400	17000	26000	34000
Sound data										
Sound Pressure	(3)	dB(A)	51	57	63	59	66	62	64	65
Possible configurations										
Free Cooling						•		•	•	
Two Sources						•		•	•	

(1) Cooling: condensation temperature 45°C; input air 24°C-45%; water 7/12°C; external static pressure: 30Pa.
Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers)

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

UPWARDS FLOW CONFIGURATIONS



Standard version with frontal air intake and upwards flow.



Version with front air intake and frontal air flow with distribution plenum with grid.

DOWNWARDS FLOW CONFIGURATIONS



Standard version with upwards suction and downwards airflow, with sub-base for raised flooring.



Version with upwards suction with frontal air flow with grilled plenum distribution.



Version with upwards suction with frontal air flow with grilled front panel.

DIMENSIONS

Dimensional data

Mod. PXO - PXU		**71**	**141**	**211**	**251**	**301**	**302**	**361**	**422**	**461**	**512**	**662**	**852**	**932**
Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
Width	mm	750	750	860	860	1410	1410	1750	1750	1750	1750	2300	2300	2640
Depth	mm	600	600	880	880	880	880	880	880	880	880	880	880	880
Weight	kg	180	210	270	270	320	340	440	450	450	500	640	660	860

Dimensional data

Mod. PWO - PWU		**10**	**20**	**30**	**50**	**80**	**110**	**160**	**220**
Height	mm	1990	1990	1990	1990	1990	1990	1990	1990
Width	mm	750	750	860	860	1750	1750	2640	3495
Depth	mm	600	600	880	880	880	880	880	880
Weight	kg	155	160	220	240	340	360	540	700

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www.aermec.com

G
070/932

HFC
Refrigerant
R410A



Downflow

Precision air conditioners:

X direct air or water condensate expansion
W cooled water
Cooling capacity 43÷183kW





Latest generation control panel.

- **INCREASE TA THE FRONT SECTION OF THE COIL BY ABOUT 40-50% THEREBY REDUCING ITS AIR-SIDE PRESSURE DROPS AND CONSEQUENTLY THE POWER CONSUMPTION OF THE FANS.**
- **INCREASE ATA THE DIMENSION OF THE AIR FILTERS INSTALLED UP-LINE OF THE COLD COIL, THAT BRINGS ABOUT A REDUCTION OF PRESSURE DROPS AND LESS MAINTENANCE.**
- **INCREASE ATA THE EFFICIENCY OF THE FANS INSTALLED IN THE SUB-BASE EXPEL TREATED AIR HORIZONTALLY.**

CHARACTERISTICS

The precision air conditioners in the G Series have build and operating features that meet latest generation Data Center design criteria.

CONFIGURATIONS

GXU: air conditioners with delivery downwards and direct expansion with air or water condensation.
GWU: air conditioners with delivery downwards with cooled water.

CHARACTERISTICS

The precision air conditioners in the **G** Series are designed to condition technological premises for applications with high power density. In such applications, installations are characterised by technical flooring of heights up to 800mm, thereby creating ample space underneath for housing delivery fans. The fans are fitted inside with a separate sub-base, without increasing the dimensions of the unit, thereby optimising available space with significant advantages:
• Thanks to the over-sized coils with a large heat-exchange surface area, high yields are achieved with less energy consumption.
• Larger filtering surface area that allows reduced pressure drops and maintenance work thanks to cleaner operation.
• Horizontal fan delivery in the sub-base with lower pressure drops.
The range has been designed and optimised for operation with ozone benign refrigerant R410A.

STRUCTURE

The set-up comprises a dark grey (RAL7024) epoxy powder painted steel frame ensuring a long-lasting finish. Self-extinguishing thermal-acoustic insulation panels finished with anti-friction film. The ventilation sub-base is supplied separately and must be connected electrically on site or in loco.

COILS

Coils with large surface area installed in ideal positions to optimise air flow and heat transfer; in refrigeration-quality copper piping with mechanically mounted aluminium fins. Cooled water machines are fitted as standard with motor-driven 2-way valves (a 3-way version is also available in the selection stage).

COMPRESSORS

Scroll compressor with high capacity and low electrical power consumption. The two-circuit configuration can divide output yield thanks to electronic adjustment that automatically manages compressor activation depending on the pressure required.

FANS

Centrifugal fans with backwards curved blades (plug-fan) and EC motor directly coupled to the electronic control to minimise electricity consumption and noise levels.

FILTERS

Undulated filters, single-use, self-extinguishing, efficiency class G4 (according to EN 779).
differential pressure switch (AS STANDARD) to signal 'filter dirty' status.

ELECTRONIC ADJUSTMENT

Thanks to control through the Modbus® Master protocol. all the main components in the unit are constantly supervised, with more than 50 different variables to ensure real-time monitoring of all operating cycles.
Thanks to specific functions dedicated to energy saving and optimised management of all the unit's operating cycles, with direct expansion and cooled water alike.
Thanks to the built-in RS485 Modbus® card and the BACnet, LonWorks and SNMP interface gateway, fast and easy interfacing is possible with monitoring devices and BMS (Building Management System).
Display of all operating parameters in 8 languages.

ACCESSORIES

DIRECT EXPANSION.
- Brushless DC compressors with inverter adjustment
- Power supply line for remote condenser
- Power supply line for remote condenser speed adjuster
- Condenser adjustment with 0-10V signal remote condenser with EC fans
- "Kit LT" for operating with low outside air temperature with the remote condenser
- Oversized liquid receiver tank
- Non-return valves on the delivery and liquid lines
- Water condenser
- Water condenser with condensing temperature adjustment valve
- "Kit HT" for operating with high condensation temperatures

COOLED WATER
- Modulating 3-way valves
- Water temperature probes on inlet & outlet
- "Power valve" kit

HEATING:
- Electrical coils with low thermal inertia and adjustment over differential stages
- Electrical coils with low thermal inertia and modulating adjustment (available on request only for certain models)
- Water-based heating coils with 2 or 3 way modulating (available on request only for certain models)

HUMIDIFICATION:
- Ambient humidity probe
- Delivery humidity probe
- Immersed electrode humidifier

MECHANICAL AND STRUCTURAL:
- Condensate discharge pump
- Condensate discharge and humidifier pump
- Overpressure gate valves on delivery
- Air filter on intake, efficiency M5 (EU5)
- Intake plenum
- Ventilated plenum with panelling for front or rear delivery
- Ventilated plenum with panelling for bottom delivery (installation above raised flooring)
- Panels with counter-panelling, "sandwich" type
- Panels with over-sized acoustic finishing

ELECTRICAL:
- Alternative voltages available: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Power supply line without neutral
- Automatic line selector switch (ATS) - "Basic" version
- Automatic line selector switch (ATS) - "Advanced" version

REGULATION:
- Ventilation adjustment at constant capacity
- Ventilation adjustment at constant pressure
- Setting and cable for local network connection
- User terminal for remote installation
- Flooding detection system

Note: For further information refer to the selection program.

SMARTNET

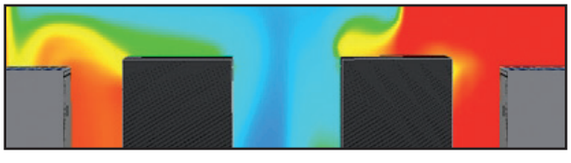
The innovative **SMARTNET** system revolutionises the local network concept.
This system exploits the modulating capacities of the components to actively divide the work load between all units present in the local network.

Compared to the Duty Stand-by latent redundancy system (n+1 o n+n), where the backup units were on hold waiting for a problem to arise, the **SMARTNET** system means that **the units connected in the network are always active.**

DUTY / STAND-BY



On 100% On 100% Stand-by

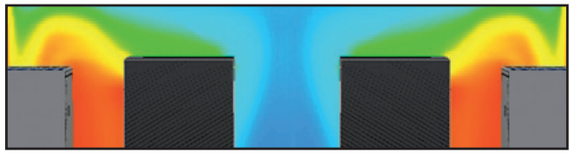


On 100% Stand-by

SMARTNET



On 60% On 60% On 60%



On 60% On 60%

TECHNICAL DATA

GXU: downwards air delivery - direct expansion with air or water condensation

Sizes			**461**	**612**	**932**
Total cooling capacity	(1)	kW	43,0	54,9	91,7
Sensible cooling capacity	(1)	kW	35,9	42,1	79,4
EER	(3)		3,39	2,86	3,60
Total cooling capacity	(2)	kW	46,6	58,8	99,6
Sensible cooling capacity	(2)	kW	46,6	53,1	99,6
EER	(3)		3,67	3,06	3,92
Fans		type	Plug fan EC		
Air flow rate		m3/h	9500	10000	19000
Sound Data					
Sound pressure	(4)	dB(A)	57	58	59

GWU: downwards air delivery - cooled water

Sizes			**70**	**150**	**230**	**300**
Total cooling capacity	(1)	kW	47,7	91,7	128,3	183,5
Sensible cooling capacity	(1)	kW	42,1	82,6	119,9	165,3
EER	(3)		32,89	33,97	35,15	40,8
Total cooling capacity	(2)	kW	38,5	74,9	106,7	149,8
Sensible cooling capacity	(2)	kW	38,5	74,9	106,7	149,8
EER	(3)		27,7	26,98	29,81	34,51
Fans		type	Plug fan EC			
Air flow rate		m3/h	9500	19000	28500	38000
Sound Data						
Sound pressure (4)		dB(A)	57	59	61	60

(1) Cooling: condensing temperature 45°C incoming air 24°C-45%; incoming air 24°C-45%; water 7/12°C; static external pressure: 30Pa; plenum ventilated, height 1000 mm. The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

(2) Cooling: condensing temperature 45°C incoming air 30°C-30%; incoming air 12°C-40%; water 14/20°C; static external pressure: 30Pa; plenum ventilated, height 1000 mm. The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

(3) EER: Energy Efficiency Ratio; total cooling capacity / input power from compressors + fans (air condensers excluded).

(4) Sound pressure declared data at a distance of 2m in a free field in accordance with UNI EN ISO 3744:2010

(*) Sizes available only on request

CONFIGURATIONS - DOWNWARDS DELIVERY



Standard execution for perimeter installation inside Data Centres: the height of the raised flooring must be minimum 550 mm.



Execution for perimeter installation inside Data Centre with height of raised flooring less than 550 mm. In this case, the sub-base having a fixed height of 550 mm c/w side closure panels must be installed above the flooring. It is in any case essential to make sure that the height of the ceiling allows good air intake.



Execution for installation outside Data Centre, without raised flooring and rear delivery. In this case, the sub-base having a fixed height of 550 mm c/w side closure panels and rear delivery grilles. Installation of the plenum with the rear return system is optional, if there is no channelling system.

DIMENSIONS

GXU models		461	612	932
Length	mm	1490	1490	2390
Depth	mm	921	921	921
Height	mm	1990	1990	1990
Net weight	kg	630	680	870

GWU models		70	150	230	300
Length	mm	1320	2220	3120	4020
Depth	mm	921	921	921	921
Height	mm	1990	1990	1990	1990
Net weight	kg	610	750	930	1250

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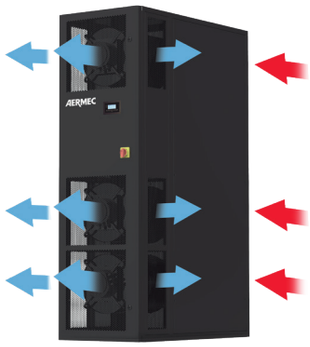
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R
40/361

HFC
Refrigerant
R410A

Precision air conditioners installation type In Rack:

A direct air or water condensate expansion
U cooled water
Cooling capacity 20÷35kW



Execution for "In-row" installation with front and side air delivery.





Latest generation control panel.

- **EXPLOIT THE EMPTY SPACES LEFT BY THE RACKS TO ENSURE BETTER COOLING FOR THE SERVER.**
- **REAR INTAKE FROM WARM CORRIDOR**
- **FRONT DELIVERY TOWARDS COLD CORRIDOR WITH HORIZONTAL FLOW; THIS REDUCES INTERNAL PRESSURE DROPS, WITH CONSEQUENT REDUCTION OF THE POWER ABSORBED BY THE FANS.**
- **EASY FRONT AND READ ACCESS FOR SIMPLIFIED MAINTENANCE.**
- **COOLING, HYDRAULIC AND ELECTRICAL CONNECTIONS FROM TOP OR BOTTOM.**

CHARACTERISTICS

precision air conditioners in the R Series have build features and dimensions suitable for installation next to data centre racks.

CONFIGURATIONS

RXA: air conditioners with delivery downwards and direct expansion with air or water condensation.
RXU: air conditioners with air delivery horizontal with cooled water.

CHARACTERISTICS

Precision air conditioners in the **R** series are designed and built to have the same dimensions as the racks, rear intake from the warm corridor and front delivery towards the cold corridor.
The range has been designed and optimised for operation with ozone benign refrigerant R410A.

STRUCTURE

The set-up comprises a dark grey (RAL7024) epoxy powder painted steel frame ensuring a long-lasting finish. Self-extinguishing thermal-acoustic insulation panels finished with anti-friction film. The ventilation sub-base is supplied separately and must be connected electrically on site or in loco.

COILS

Coils with large surface area installed in ideal positions to optimise air flow and heat transfer; in refrigeration-quality copper piping with mechanically mounted aluminium fins, equipped as standard with 3-way motor-driven valves (also available as 2-way version in the selection stage).

COMPRESSORS

Brushless DC compressors with inverter adjustment, high yield and low electrical power consumption. **FANS**
Centrifugal fans with backwards curved blades (plug-fan) and EC motor directly coupled to the electronic control to minimise electricity consumption and noise levels.

FILTERS

Undulated filters, single-use, self-extinguishing, efficiency class G4 (according to EN 779).
differential pressure switch (AS STANDARD) to signal 'filter dirty' status.

ELECTRONIC ADJUSTMENT

Thanks to control through the Modbus® Master protocol. all the main components in the unit are constantly supervised, with more than 50 different variables to ensure real-time monitoring of all operating cycles.

Thanks to specific functions dedicated to energy saving and optimised management of all the unit's operating cycles, with direct expansion and cooled water alike.
Thanks to the built-in RS485 Modbus® card and the BACnet, LonWorks and SNMP interface gateway, hadst and easy interfacing is possible with monitoring devices and BMS (Building Management System).
Display of all operating parameters in 8 languages.

ACCESSORIES

DIRECT EXPANSION.
- Power supply line for remote condenser
- Power supply line for remote condenser speed adjuster
- Condenser adjustment with 0-10V signal remote condenser with EC fans
- "Kit LT" for operating with low outside air temperature with the remote condenser
- Oversized liquid receiver tank
- Non-return valves on the delivery and liquid lines
- Water condenser
- Water condenser with condensing temperature adjustment valve

COOLED WATER
- Modulating 2-way valves
- Water temperature probes on inlet & outlet
- "Power valve" kit

HEATING:
- Electrical coils with low thermal inertia and adjustment over differential stages

HUMIDIFICATION:
- Ambient humidity probe
- Delivery humidity probe
- Immersed electrode humidifier

MECHANICAL AND STRUCTURAL:
- Condensate discharge pump
- Air filter on intake, efficiency M5 (EU5)
- Closed front panel for side delivery
- Closed side panels for front delivery
- Handling wheels

ELECTRICAL:
- Alternative voltages available: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Power supply line without neutral
- Automatic line selector switch (ATS) - "Basic" version
- Automatic line selector switch (ATS) - "Advanced" version

REGULATION:
- Ventilation adjustment at constant capacity
- Ventilation adjustment at constant pressure
- Setting and cable for local network connection
- User terminal for remote installation
- Flooding detection system

Note: For further information refer to the selection program.

SMARTNET

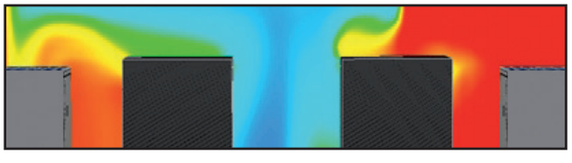
The innovative **SMARTNET** system revolutionises the local network concept.
This system exploits the modulating capacities of the components to actively divide the work load between all units present in the local network.

Compared to the Duty Stand-by latent redundancy system (n+1 o n+n), where the backup units were on hold waiting for a problem to arise, the **SMARTNET** system means that **the units connected in the network are always active.**

DUTY / STAND-BY



On 100% | On 100% | Stand-by

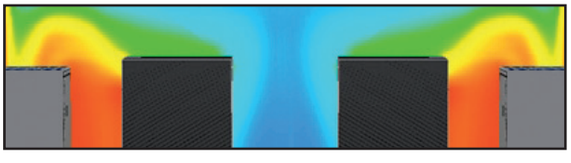


On 100% | Stand-by

SMARTNET



On 60% | On 60% | On 60%



On 60% | On 60%

TECHNICAL DATA

RXA: horizontal air delivery - direct expansion with air or water condensation

Sizes			**231**	**361**
Total cooling capacity	(1)	kW	20,4	28,2
Sensible cooling capacity	(1)	kW	19,7	21,7
EER	(2)		3,29	2,95
Fans		type	Plug fan EC	
Air flow rate		m3/h	6000	7500
Sound Data				
Sound pressure	(3)	dB(A)	56	56
Possible configurations				
Free Cooling			•	
Two Sources			•	

RXU: horizontal air delivery - cooled water

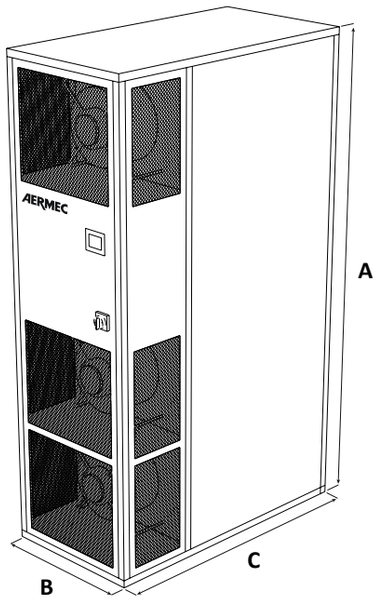
Sizes			**40**
Total cooling capacity	(1)	kW	35,4
Sensible cooling capacity	(1)	kW	33,5
EER	(2)		27,65
Fans		type	Plug fan EC
Air flow rate		m3/h	9000
Sound Data			
Sound pressure	(3)	dB(A)	61
Possible configurations			
Two Sources			•

(1) Cooling: condensing temperature 45°C incoming air 24°C-45%; incoming air 24°C-45%; water 7/12°C; static external pressure: 30Pa.
The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power from compressors + fans (air condensers excluded).

(3) Sound pressure declared data at a distance of 2m in a free field in accordance with UNI EN ISO 3744:2010

DIMENSIONS



Dimensional data RXA			231	361
Height	A	mm	2000	2000
Width	B	mm	600	600
Depth	C	mm	1180	1180
Weight		kg	215	215

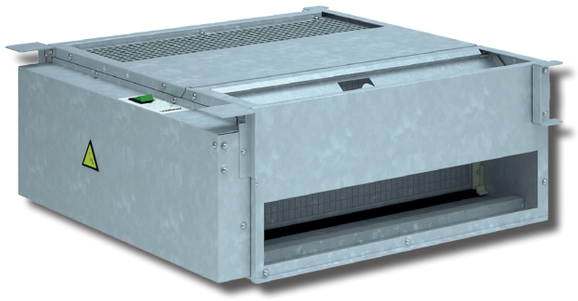
Dimensional data RXU			40
Height	A	mm	2000
Width	B	mm	600
Depth	C	mm	1180
Weight		kg	190

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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UFB

Booster unit with Brushless Inverter motor (EC)
Floating floor installation





Typical installation

- **LOWER ELECTRICITY CONSUMPTION**
- **VERY QUIET OPERATION**
- **EASY MAINTENANCE**

Features

Air handling terminal for installations in floating floor, also called floating or raised floor.
IS a unit consisting of a fan unit with **brushless inverter motor,** enclosed in a metal structure with mixing chamber equipped with motor-driven damper, filter and electronic card.
The use of these units is expected within a floating floor, often used in offices or equipment rooms for data centre and similar. In these systems there is often an air handling unit that cools the environment by entering the treated air in the underfloor and the buster units combine to improve the distribution in the rooms and, depending on the version, perform localized after-treatment.
Using the two ambient air temperature sensors (return air) and the underfloor air temperature sensors, the electronic regulation through the positioning of the motor-driven damper, performs a mix to reach the temperature setpoint set with a possible supervision system.

Versions
UFB20 booster unit for the distribution of the UTA treated air, the mix with room air for the room temperature control
UFB20HE booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using electric heating coil (only in heating) for the control of the room temperature.

- Unit is easy to install, as completely compatible with squares 600x600 mm used in these applications. Using the normal support systems of such floating floors allow to fully replace a square, obtaining a perfect joint, in line with the rest of the floor, with no "step".
- **Centrifugal fan with Brushless inverter** with continuous speed variation, 0-100%, which allows the exact adjustment to the requests of the internal environment without temperature fluctuations. Also allows an electric savings and better acoustic comfort.
- Thickness contained (219 mm)
- For a better air quality, the UFB are equipped with electro-statically pre-loaded filters

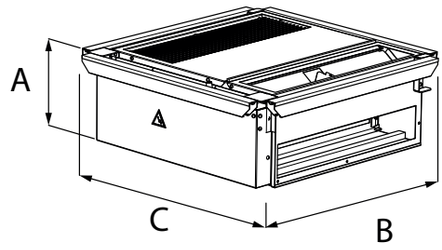
Technical data

UFB		Vel.	20	20HE
Air flow rate	m^3/h	H	740	740
	m^3/h	M	220	220
	m^3/h	L	140	140
Fans	type		centrifugal	centrifugal
	no.		1	1
Input power	W	H	40	40
Electric heating coil	no.		/	1
Heater input power	W		/	500
Max. input current	(A)		/	0.2

H maximum speed; **M** average speed; **L** minimum speed

Sizes and weights

UFB			20/20HE
Height	A	mm	219
Width	B	mm	571
Depth	C	mm	572
Weight		kg	16.5



Code: SUFBWUI.00/1509

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ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements: Aermec the answer to air conditioning. A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space. Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.

ROOM AIR CONDITIONERS

			Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
	Monosplit					
	SK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-7,0	3,0-7,3	496
	SE	Reversible heat pump	-	2,5-6,4	2,7-7,0	498
new	**SL**	Reversible heat pump	-	2,5-6,2	2,8-6,2	500
new	**SLG**	Reversible heat pump	w	2,7-6,1	2,8-6,4	502
	SC	Reversible heat pump with	-	12,0	13,6	504
	FK	Packaged Air Conditioner	-	2,7-3,6	-	506
	COMPACT	Packaged heating pump without outdoor unit	-	2,3	2,3	508
new	**PSD300**	Local air conditioner (portable)	360	2,9	-	510
	CK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-5,2	2,7-5,5	512
	LCI	Reversible heat pump	-	3,5-16,0	3,8-17,0	514
	MVA	Reversible heat pump	-	22,4-28	25-30	518
	Multisplit					
	MKM	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	4,1-12,1	4,4-13,0	520

SK

Reversible Split System Heat Pumps

Cooling Capacity from 2,6kW up to 7,0kW
Heating Capacity from 3,0kW up to 7,3kW

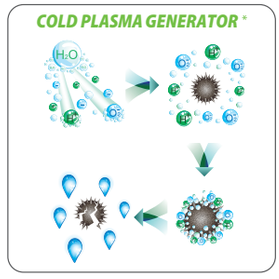
High Wall Type Monosplit

- Air Ionizer (Cold Plasma Generator)
- WIFIKIT: the system can be controlled from a distance, directly via your smartphone or tablet
- App available on Apple Store and Google play
- Low Cooling Function: cooling operation with outdoor temperatures down to -15°C.
- Low Heating Function: heating operation with outdoor temperatures down to -20°C.

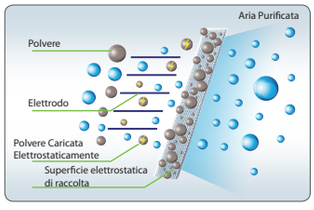


SK260W - SK360W - SK500W - SK700W

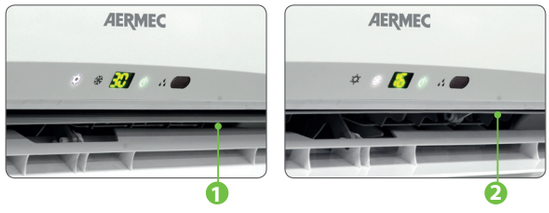




A+++ Cooling
A+++ Heating (Average)



Operating principle of the **Electrostatic anti-dust filter** (electrically powered)



Extra Horizontal Louver
1. Activated in Heating Mode to improve the air distribution and avoid air stratification
2. Retracts in Cooling Mode



WRCA
Wired Control Panel
(Accessory)

FEATURES

- **Outdoor Unit**
- **SK**
- Outdoor Unit aviable in 4 size.
- Outdoor Unit with **Electrical Anti-Freeze Heater (in unit base)** to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Outdoor Unit with DC Inverter Twin Rotary Compressor.
- Outdoor Unit with DC Inverter Fan.
- Ultra Low Noise function.
- Outdoor Unit with Electronic Expansion Valve.

- **Indoor Unit**
- **SK_W**
- Indoor Unit aviable in 4 size.
- Indoor Unit fitted with double horizontal louvers and with vertical louvers, all motorised for optimum air flow control in two directions.
- The indoor unit fan works at 7 speeds, 5 of which can be directly selected using the "FAN" key, while the other 2 are set by means of a specific key. "QUIET" for extremely quiet operation. "TURBO" for reaching the required temperature as quickly as possible.
- "AUTO" function for continual speed variation.
- "Anti-Freeze" function for maintaining a minimum temperature of 8°C indoors during the winter months.
- "I FEEL" functioning: used to activate the indoor environment temperature probe on the remote control for better comfort.
- Air Filters easy to remove and clean.
- Electrostatic dust filter (electrically powered).
- Infrared remote control with backlit liquid crystal screen for controlling all the functions.
- **Universal Indoor Unit:** the same indoor unit can be combined with either the Mono-Split outdoor units of the SK range or the Multi-Split outdoor units of the MKM range.
- Adapter for the gas refrigerating line, supplied with indoor units SK360W and SK500W for use with outdoor units MKM only.
- Ultra Low Noise function.
- **General Features:**
- Operation Modes: Cooling, Heating, Dehumidification, Automatic and Fan only.
- Microprocessor control.
- Auxiliary emergency control (AUTO button in the indoor unit).
- Front panel of indoor unit with liquid crystal display and leds indicating the operating mode.
- Timer for programming switch-off and/or switch-on.
- 3 Sleep programs.
- Auto-restart function.
- Self-diagnostics function.
- Flared refrigerant connections.
- Easy installation and maintenance.
- **Low Cooling Function:** cooling operation with outdoor temperatures down to -15°C.
- **Low Heating Function:** heating operation with outdoor temperatures down to -20°C.
- **Air Ionizer (Cold Plasma Generator):** reduces the polluting agents, decomposing their molecules by means of electrical charges and causing the division of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous polluting agents creating substances that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air without any unpleasant odours.

ACCESSORIES

- **WI-FI KIT:** *Plug & Play* module to be installed in the indoor unit for *Wi-Fi control.* Using this accessory and the special *App* for *iOS* and *Android* devices (freely available on *Apple Store and Google play)*, the system can be controlled from a distance, directly via your smartphone or tablet. The remote control can be done by Local Wi-Fi(Short Distance Control), otherwise through Cloud System with a Wireless Router connected to the internet(Long Distance Control).
- **WRCA:** wired panel with liquid crystal display and *Soft-Touch* keys. Using this accessory, it's possible to control not only the traditional system functions but also a weekly timer with up to 8 daily time bands.
- **The two accessories, WRCA and WI-FI KIT, are mutually compatible and so they can be connected to the same indoor unit simultaneously.**

TECHNICAL DATA

Indoor Units				**SK260W**	**SK360W**	**SK500W**	**SK700W**
Outdoor Units				**SK260**	**SK360**	**SK500**	**SK700**
Cooling Capacity	Nominal (Min-Max)		kW	2,6 (0,6-3,2)	3,5 (0,6-4,0)	5,3 (1,0-6,3)	7,0 (2,0-8,6)
Cooling Power Input	Nominal (Min-Max)		kW	0,6 (0,12-1,1)	0,9 (0,12-1,4)	1,51 (0,4-2,45)	2,0 (0,45-3,2)
Cooling Current Input			A	2,7	4,0	8,75	8,90
Moisture Removed			l/h	0,8	1,4	1,8	2,5
Seasonal Efficiency	Energy Efficiency Class	(1)	-	A^{+++}	A^{++}	A^{++}	A^{++}
	SEER		-	8,50	8,0	6,4	6,3
	Pdesignc		kW	2,6	3,5	5,3	7,0
	Annual Power Consumption		kWh / annum	107	153	290	389
Heating Capacity	Nominal (Min-Max)		kW	3,0 (0,6-4,0)	4,0 (0,6-5,0)	5,4 (1,0-6,8)	7,3 (1,9-9,0)
Heating Power Input	Nominal (Min-Max)		kW	0,65 (0,12-1,6)	1,0 (0,12-1,7)	1,45 (0,4-2,5)	1,96 (0,38-3,2)
Heating Current Input			A	3,2	4,5	8,54	9,63
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)	-	A^{+++}	A^{++}	A^{+}	A^{+}
	SCOP		-	5,1	4,7	4,0	4,0
	Pdesignh		kW	2,8	3,5	5,4	7,0
	Annual Power Consumption		kWh / annum	769	1043	1890	2450

Refrigerant Gas			Type / GWP		R410A / 2088kgCO_2eq		
Refrigerant Charge			kg	1,2	1,3	1,6	2,3
EER		(2)	W/W	4,33	3,89	3,50	3,50
COP		(2)	W/W	4,62	4,00	3,72	3,72
Rated Power Input		(3)	kW	1,6	1,7	2,5	3,2
Rated Current Input		(3)	A	7,1	8,0	14,0	14,20
Indoor Units							
Air flow rate	Turbo / Quiet		m^3/h	650/350	750/350	950/480	1200/780
Sound Power	Turbo / Quiet		dB(A)	55/38	55/38	60/46	65/49
Sound Pressure	Turbo / Quiet	(4)	dB(A)	43/26	43/26	46/34	51/37
Outdoor Units							
Air flow rate	Max		m^3/h	2400	2400	3200	4000
Sound Power	Max		dB(A)	63	63	65	68
Sound Pressure	Max	(4)	dB(A)	54	54	56	58
Compressor			Tipo		Twin Rotary DC Inverter		
Refrigerant Connections	Liquid		inch	1/4"	1/4"	1/4"	1/4"
	Gas		inch	3/8"	1/2"	5/8"	5/8"
Refrigerant Lines	Øe Liquid		mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Øe Gas		mm (inch)	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")
	Pipe length	Max	m	15	20	25	25
	Height difference	Max	m	10	10	10	10
Power Supply			-		220-240V ~ 50/60Hz		

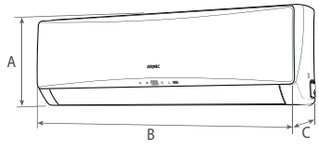
Cooling (EN-14511 and EN-14825)
Ambient air temperature 27°C D.B. / 19°C W.B Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.

Heating (EN-14511 and EN-14825)
Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B. / 6°C W.B Max speed; Length of Refrigerant Lines 5m.

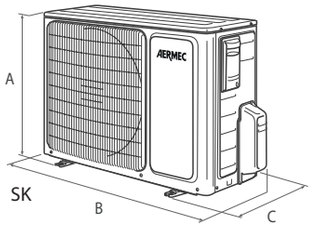
Min = Minimum; Med = Medium; Max = Maximum.
(1) Data in accordance with Delegated Regulation (EU) No. 626/2011
(2) EER/COP in accordance with the Standard (EN-14511)
(3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

SIZES AND WEIGHTS

Indoor Units			**SK260W**	**SK360W**	**SK500W**	**SK700W**
Height	(A)		292	292	319	326
Width	(B)	mm	866	866	1018	1178
Depth	(C)		209	209	230	264
Net Weight		kg	11	11	14	17
Outdoor Units			**SK260**	**SK360**	**SK500**	**SK700**
Height	(A)		596	596	700	790
Width	(B)	mm	899	899	955	980
Depth	(C)		378	378	396	427
Net Weight		kg	41	43	47,5	65



SK_W



SK

SPLIT

Cod.: SSCKUY.02 / 1712

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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SE

Reversible Split System Heat Pumps

Cooling Capacity 2,5÷6,5kW
Heating Capacity 2,7÷7,0kW

High Wall Type Monosplit

- Function Night Comfort (SLEEP)
- Auto-Restart function
- Simple installation and maintenance
- External unit defrost function



SE250W - SE351W - SE500W - SE700W



A++ Raffrescamento

A+ Riscaldamento (Clima Temperato)

CHARACTERISTICS

Split Heat Pump suitable for cooling / heating in the residential environment.
New design features and modern forms that are well suited to any style of interior.
Five modes of operation (cooling, heating, dehumidification, ventilation Automatic and Only), to guarantee optimum comfort.
The environmental comfort is also closely related to the sound level and is especially important in studies and bedrooms. The indoor units SE, ensure comfort throughout the year by distributing air quietly.

- Operation Heat Pump with reverse cycle refrigerator and defrost control
- Fan tangential 4 speed directly selected (Minimum, Average, Maximum, Turbo)
- DC Inverter rotary compressor
- Microprocessor control
- Infrared remote controller with liquid crystal display to control all functions
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)
- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller (LIGHT)
- A handy timer allows you to set up and program the startup and shutdown within a time span of 24 hours, the hours you select, and even in your absence.
- Function Night Comfort (SLEEP)
- The function adjusts the room temperature by reproducing the curve of body temperature during the night, thus ensuring an adequate physical and mental rest, whose benefi translate into increased productivity and efficiency.
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function
- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvres
- Motorised deflector louvres controlled by the remote controller to vertically adjust the discharge air, with 5 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

TECHNICAL DATA

Internal Unit				SE250W	SE351W	SE500W	SE700W
External Unit				**SE250**	**SE351**	**SE500**	**SE700**
Cooling Capacity	nominal		kW	2,50	3,20	5,27	6,45
	(min÷max)		kW	(0,60-2,80)	(0,60-3,60)	(1,26-6,60)	(2,53-6,80)
Power input	nominal		kW	0,80	1,02	1,62	2,18
	(min÷max)		kW	(0,12-1,30)	(0,12-1,40)	(0,38-2,65)	(0,60-2,65)
Condensate rate			l/h	0,8	1,4	1,8	2,0
Seasonal Energy Efficiency	Energy efficiency class	(1)		A^{+}	A^{++}	A^{++}	A^{++}
	SEER			5,8	6,1	6,1	6,1
	Pdesignc		kW	2,5	3,2	5,2	6,4
Heating Capacity	nominal		kW	2,75	3,56	5,80	7,00
	(min÷max)		kW	(0,60-3,00)	(0,60-3,80)	(1,12-6,80)	(2,53-7,60)
Power input	nominal		kW	0,78	1,04	1,76	2,22
	(min÷max)		kW	(0,12-1,40)	(0,12-1,50)	(0,35-2,65)	(0,60-2,80)
Seasonal Energy Efficiency (evarage)	Energy efficiency class	(1)		A^{+}	A^{+}	A^{+}	A^{+}
	SCOP			4,0	4,0	4,0	4,0
	Pdesignh			2,5	3,2	4,5	5,8
Refrigerant Gas			Type / GWP		R410A / 2088kgCO2eq		
Refrigerant Charge			kg	0,70	0,90	1,35	1,80
	EER	(2)		3,12	3,14	3,25	2,96
	COP	(2)		3,53	3,42	3,30	3,15
Power input nominal		(3)	kW	1,4	1,5	2,6	2,8

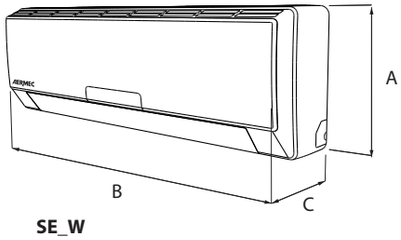
Internal unit			SE250W	SE351W	SE500W	SE700W
Air flow rate	max/med/min	m^3/h	400/300/250	400/300/250	780/650/550	800/700/550
Sound power	max/med/min	dB(A)	46/43/40	47/43/40	53/50/45	57/52/49
Sound pressure	/max/med/min	dB(A)	34/31/28	34/31/28	43/37/33	47/42/39

External Unit				SE250	SE351	SE500	SE700
Air flow rate	max		m^3/h	1600	2200	3200	4000
Sound power	max		dB(A)	60	62	63	68
Sound pressure	max	(4)	dB(A)	50	52	56	58
Compressor			type		Rotary DC Inverter		
Refrigerant Connections	Liquid		inch	1/4"	1/4"	1/4"	1/4"
	Gas		inch	3/8"	3/8"	1/2"	5/8"
Refrigerant Lines	Liquid		mm / inch	6,35 / 1/4"	6,35 / 1/4"	6,35 / 1/4"	6,35 / 1/4"
	Gas		mm / inch	9,52 / 3/8"	9,52 / 3/8"	12,7 / 1/2"	15,9 / 5/8"
	piping length	max	m	15	20	25	25
	drop	max	m	10	10	10	10
Power supply			V ~ Hz		220-240V~50Hz		

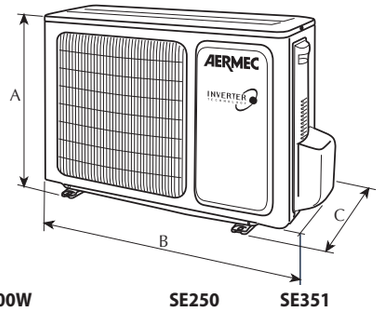
Cooling (EN-14511 e EN-14825)
Ambient air temperature 27°C b.s/ 19 b.u.; External air temperature 35°C; Max speed; Refrigerant line length 5m
Heating (EN-14511 e EN-14825)
Ambient air temperature 20°C b.s; External air temperature 7°C b.s/ 6°C b.u; Max speed; Refrigerant line length 5m

min = minimum speed; max = maxim speed
(1) In accordance with Standard EN-14511e EN-14825
(2) EER/COP in accordance with (EN-14511), declared only for the purpose of tax deductions into force upon completion of this publication
(3) The rated power input is the maximum electrical power absorbed by the system, according to the legislation EN-60335 - 1 e EN-60335 - 2 - 40
(4) Sound pressure measured at 1m distance from front in semi-anechoic chamber.

DIMENSIONAL AND WEIGHT



SE_W



SE

		SE250W	SE351W	SE500W	SE700W	SE250	SE351	SE500	SE700
A	mm	265	265	298	315	540	596	700	790
B	mm	790	790	940	1007	776	842	963	1000
C	mm	174	174	200	219	320	320	396	427
Peso	kg	8,5	8,5	12	15	27	30	45	55

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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Cod.: SSEUY.02 / 1712

SL

Reversible Split System Heat Pumps

Cooling Capacity 2,5kW ÷ 6,2kW
Heating Capacity 2,8kW ÷ 6,2kW

- WiFiKit: Plug & Play module for Wi-Fi control
- External Unit Defrost function



SL250W - SL350W - SL500W - SL700W



A++ Raffrescamento

A+ Riscaldamento

CHARACTERISTICS

Split Heat Pump suitable for cooling / heating in the residential environment.
New design features and modern forms that are well suited to any style of interior.
Five modes of operation (cooling, heating, dehumidification, ventilation Automatic and Only), to guarantee optimum comfort.
The environmental comfort is also closely related to the sound level and is especially important in studies and bedrooms. The indoor units SLG, ensure comfort throughout the year by distributing air quietly.

- Operation Heat Pump with reverse cycle refrigerator and defrost control
- Fan tangential 4 speed directly selected (Minimum, Average, Maximum, Turbo)
- DC Inverter rotary compressor
- Microprocessor control
- Infrared remote controller with liquid crystal display to control all functions
- Remote Control Holder
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)
- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller (LIGHT)
- A handy timer allows you to set up and program the startup and shutdown within a time span of 24 hours, the hours you select, and even in your absence.
- Function Night Comfort (SLEEP)
- The function adjusts the room temperature by reproducing the curve of body temperature during the night, thus ensuring an adequate physical and mental rest, whose benefi translate into increased productivity and efficiency.
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function
- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvres
- Motorised deflector louvres controlled by the remote controller to vertically adjust the discharge air, with 5 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

ACESSORIES

- **WI-FI KIT and WI-FI KIT 10**
  Plug & Play module to be installed in the indoor unit for *Wi-Fi* control. Using this accessory and the special *App* for *iOS* and *Android* devices (freely available on *Apple Store* and *Google play*), the system can be controlled from a distance, directly via your smartphone or tablet. The remote control can be done by *Cloud System* with a *Wireless Router* connected to the internet.
  The following table shows the compatibility between the Internal Units and the models WIFIKIT available.

WIFIKIT COMPATIBILITY

Indoor Units	SL250W	SL350W	SL500W	SL700W
WIFIKIT	–	–	●	●
WIFIKIT10	●	●	–	–

Key
● compatible
– not compatible

TECHNICAL DATA

Indoor Units				**SL250W**	**SL350W**	**SL500W**	**SL700W**
Outdoor Units				**SL250**	**SL350**	**SL500**	**SL700**
Cooling Capacity	Nominal (Min-Max)		kW	2,5(0,6-2,8)	3,2(0,6-3,6)	4,6(0,7-5,2)	6,2(1,8-6,3)
Cooling Power Input	Nominal (Min-Max)		kW	0,81(0,1-1,3)	1,00(0,1-1,4)	1,4(0,1-1,9)	2(0,5-2,2)
Cooling Current Input			A	3,60	4,50	6,34	9,35
Moisture Removed			l/h	0,80	1,40	1,80	2
Seasonal Efficiency	Energy Efficiency Class	(1)		A^{++}	A^{++}	A^{++}	A^{++}
	SEER			6,1	6,1	6,1	6,5
	Pdesignc		kW	2,5	3,2	4,6	6,1
	Annual Power Consumption		kWh/annum	143	184	264	328
Heating Capacity	Nominal (Min-Max)		kW	2,8(0,6-3,2)	3,4(0,6-3,8)	5,0(0,7-5,3)	6,2(1,8-6,8)
Heating Power Input	Nominal (Min-Max)		kW	0,8(0,1-1,4)	0,9(0,1-1,5)	1,4(0,2-1,7)	1,9(0,5-2,4)
Heating Current Input			A	3,5	4,4	6,1	10
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A^{+}	A^{+}	A^{+}	A^{+}
	SCOP			4,0	4,0	4,0	4,0
	Pdesignh		kW	2,5	3,2	3,3	4,6
	Annual Power Consumption		kWh/annum	875	1120	1155	1610

Refrigerant Gas			Tipo / GWP		R410A / 2087,5kgCO_2eq		
Refrigerant Charge			kg	0,7	0,9	1,1	1,5
EER		(2)		3,21	3,21	3,22	3,08
COP		(2)		3,61	3,61	3,62	3,26
Rated Power Input		(3)	kW	1,4	1,5	1,9	2,4
Rated Current Input		(3)	A	6,70	7,2	8,25	9,56
Indoor Units							
Air flow rate (Turbo/Max/Med/Min)			m^3/h	480/370/320/210	560/480/410/290	850/720/610/520	850/720/610/520
Sound Power (Turbo/Max/Med/Min)			dB(A)	50/47/44/39	55/47/44/38	58/53/50/45	59/55/51/46
Sound Pressure (Turbo/Max/Med/Min)		(4)	dB(A)	40/36/34/29	42/37/34/28	45/41/37/33	47/43/39/34
Outdoor Units							
Air flow rate (Max)			m^3/h	1600	2200	2200	3200
Sound Power (Max)			dB(A)	60	62	63	67
Sound Pressure (Max)		(4)	dB(A)	51	52	54	57
Compressor			Tipo	Rotary DC Inverter	Rotary DC Inverter	Rotary DC Inverter	Rotary DC Inverter
Refrigerant Connections	Ø Liquid		mm (inch)	6 (1/4")	6 (1/4")	6 (1/4")	6 (1/4")
	Ø Gas		mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	16 (5/8")
Refrigerant Lines	Pipe length	Max	m	15	20	20	25
	Height difference	Max	m	10	10	10	10
Power Supply			V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50

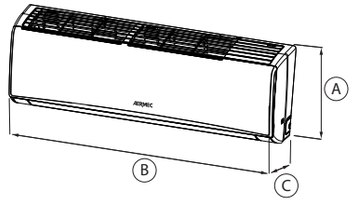
Cooling(EN-14511 e EN-14825)
Ambient air temperature 27°C D.B. / 19°C W.B Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
Heating (EN-14511 e EN-14825)
Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B. / 6°C W.B Max speed; Length of Refrigerant Lines 5m.

(1) Data in accordance with Delegated Regulation (EU) No. 626/2011
(2) EER/COP in accordance with the Standard (EN-14511)
(3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

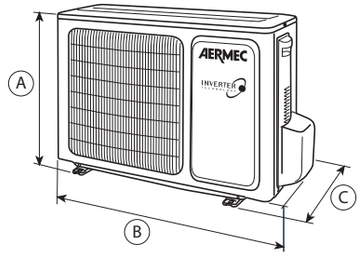
DIMENSIONS AND WEIGHT

DIMENSIONS		SL250W	SL350W	SL500W	SL700W
INDOOR UNIT					
Without Package	mm				
A x B X C		275×790×200	275×790×200	300×970×224	300×970×224
With Package	mm				
A x B X C		342×850×262	342×850×262	308×1041×383	308×1041×383
Weight	kg				
Net	kg	9	9	13,5	13,5
Gross		11	11	16,5	16,5

DIMENSIONS		SL250	SL350	SL500	SL700
INDOOR UNIT					
Without Package	mm				
A x B X C		540×782×320	596×848×320	596×848×320	700×967×396
With Package	mm				
A x B X C		583×823×363	633×883×363	633×883×363	743×1033×463
Weight	kg				
Net	kg	26,5	29	33	46
Gross		29	32	36	50,5



SL_W



SL

SPLIT

SLG

Reversible Split System Heat Pumps

Cooling Capacity 2,7kW ÷ 6,1kW
Heating Capacity 2,8kW ÷ 6,4kW

- Ecological solution, using R32 refrigerant Gas
- Wi-Fi Kit: Plug & Play module for Wi-Fi control
- External Unit Defrost function



SL250W - SL350W - SL500W - SL700W



A++ Cooling
A+ Heating

FEATURES

Split Heat Pump suitable for cooling / heating in the residential environment.
New design features and modern forms that are well suited to any style of interior.
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The environmental comfort is also closely related to the sound level and is especially important in studies and bedrooms. The indoor units SLG, ensure comfort throughout the year by distributing air quietly.

- Operation Heat Pump with reverse cycle refrigerator and defrost control
- Fan tangential 4 speed directly selected (Minimum, Average, Maximum, Turbo)
- DC Inverter rotary compressor
- Microprocessor control
- Infrared remote controller with liquid crystal display to control all functions
- Remote Control Holder
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)
- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller (LIGHT)
- A handy timer allows you to set up and program the startup and shutdown within a time span of 24 hours, the hours you select, and even in your absence.
- Function Night Comfort (SLEEP)
- The function adjusts the room temperature by reproducing the curve of body temperature during the night, thus ensuring an adequate physical and mental rest, whose benefi translate into increased productivity and efficiency.
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function
- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvres
- Motorised deflector louvres controlled by the remote controller to vertically adjust the discharge air, with 5 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

ACCESSORIES

- **WI-FI KIT and WI-FI KIT 10**
  Plug & Play module to be installed in the indoor unit for *Wi-Fi* control. Using this accessory and the special *App* for *iOS* and *Android* devices (freely available on *Apple Store* and *Google play*), the system can be controlled from a distance, directly via your smartphone or tablet. The remote control can be done by *Cloud System* with a *Wireless Router* connected to the internet.
  The following table shows the compatibility between the Internal Units and the models WIFIKIT available.

WI-FI KIT COMPATIBILITY

Indoor Units	SL250W	SL350W	SL500W	SL700W
WIFIKIT	–	•	•	–
WIFIKIT10	•	–	–	•

Key
• compatible
– not compatible

- **WRCA:** wired panel with liquid crystal display and *Soft-Touch* keys.
  Using this accessory, it's possible to control not only the traditional system functions but also a weekly timer with up to 8 daily time bands.
- **The two accessories, WRCA and WIFIKIT/ WIFIKIT10 , are mutually compatible and so they can be connected to the same indoor unit simultaneously.**
- **DCK:** Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.

TECHNICAL DATA

Indoor Units				**SLG250W**	**SLG350W**	**SLG500W**	**SLG700W**
Outdoor Units				**SLG250**	**SLG350**	**SLG500**	**SLG700**
Cooling Capacity	Nominal (Min-Max)		kW	2,7(0,5-3,5)	3,2(0,6-3,6)	4,6(0,7-5,2)	6,1(1,8-6,4)
Cooling Power Input	Nominal (Min-Max)		kW	0,8(0,1-1,4)	1,0(0,1-1,4)	1,4(0,2-1,7)	1,8(0,6-2,5)
Cooling Current Input			A	3,8	4,4	6,3	7,7
Moisture Removed			l/h	0,8	1,4	1,8	1,8
Seasonal Efficiency	Energy Efficiency Class	(1)		A^{++}	A^{++}	A^{++}	A^{++}
	SEER			6,8	6,1	6,1	6,1
	Pdesignc		kW	2,7	3,2	4,6	6,1
	Annual Power Consumption		kWh/annum	139	184	264	350
Heating Capacity	Nominal (Min-Max)		kW	2,8(0,5-4,2)	3,5(0,6-3,8)	5,2(0,7-5,4)	6,4(1,6-6,6)
Heating Power Input	Nominal (Min-Max)		kW	0,8(0,2-1,5)	1,0(0,1-1,5)	1,4(0,2-1,6)	1,9(0,7-2,6)
Heating Current Input			A	3,5	4,30	6,2	8,1
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A^{+}	A^{+}	A^{+}	A^{+}
	SCOP			4,0	4,0	4,0	4,0
	Pdesignh		kW	2,6	3,2	3,6	4,7
	Annual Power Consumption		kWh/annum	910	1120	1260	1645

Refrigerant Gas			Tipo / GWP	R32 / 675kgCO_2eq			
Refrigerant Charge			kg	0,6	0,6	0,8	1,3
EER		(2)		3,29	3,21	3,22	3,50
COP		(2)		3,71	3,61	3,71	3,47
Rated Power Input		(3)		1,5	1,5	1,7	2,6
Rated Current Input		(3)		6,3	6,2	8	10,9
Indoor Units							
Air flow rate (Turbo/Max/Med/Min)			m^3/h	560/460/380/290	560/480/410/290	850/720/610/520	850/720/610/520
Sound Power (Turbo/Max/Med/Min)			dB(A)	55/46/40/35	55/47/44/38	58/54/49/44	59/54/50/44
Sound Pressure (Turbo/Max/Med/Min)		(4)	dB(A)	41/35/29/24	42/37/34/28	48/45/39/34	48/44/40/34
Outdoor Units							
Air flow rate (Max)			m^3/h	1600	2200	2200	3200
Sound Power (Max)			dB(A)	59	62	63	67
Sound Pressure (Max)		(4)	dB(A)	50	52	54	57
Compressor			Tipo	Rotary DC Inverter	Rotary DC Inverter	Rotary DC Inverter	Rotary DC Inverter
Refrigerant Connections	Ø Liquid		mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Ø Gas		mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	15,9 (5/8")
Refrigerant Lines	Pipe length	Max	m	15	20	20	25
	Height difference	Max	m	10	10	10	10
Power Supply			-	220-240 ~ 50Hz	220-240 ~ 50Hz	220-240 ~ 50Hz	220-240 ~ 50Hz

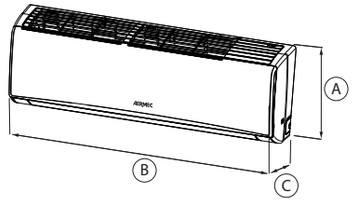
Cooling(EN-14511 e EN-14825)
Ambient air temperature 27°C D.B. / 19°C W.B Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
Heating (EN-14511 e EN-14825)
Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B. / 6°C W.B Max speed; Length of Refrigerant Lines 5m.

Min = Minimum; Med = Medium; Max = Maximum.
(1) Data in accordance with Delegated Regulation (EU) No. 626/2011
(2) EER/COP in accordance with the Standard (EN-14511)
(3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

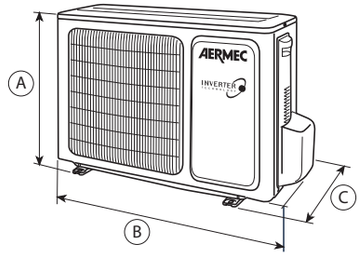
DIMENSIONS AND WEIGHTS

DIMENSIONS					
INDOOR UNITS		**SLG250W**	**SLG350W**	**SLG500W**	**SLG700W**
Without package					
A x B X C	mm	275×790×200	275×790×200	300×970×224	300×970×224
With package					
A x B X C	mm	367× 866× 271	367× 866× 271	383×1041×320	383×1041×320
WEIGHT					
Net weight	kg	9	9	13,5	13,5
Gross weight	kg	11	11	16,5	16,5

OUTDOOR UNITS		**SLG250**	**SLG350**	**SLG500**	**SLG700**
Without package					
A x B X C	mm	540×782×320	596×848×320	596×848×320	700×963×396
With package					
A x B X C	mm	595×823×358	645×881×363	645×881×363	750×1029×458
Weight					
Net weight	kg	29,5	31	34	46
Gross weith	kg	32	34	37	50,5



SLG_W



SLG

Cod.: SSLGUY.00 / 17.12

SC

Column Monosplit

- Easy installation and maintenance
- Auto-Restart function
- Outdoor unit defrost function
- Nigh-time Wellness function (SLEEP)

Reversible Split System Heat Pumps

Cooling Capacity 12,0kW
Heating Capacity 13,6kW



SC1200V

A Raffrescamento

A Riscaldamento (Clima Temperato)

CHARACTERISTICS

A monosplit heat pump designed for Cooling Heating large environments.
Vertical indoor unit, easy to install on the floor. The air is expelled from the upper frontal portion of the indoor unit, and is drawn in laterally in order to avoid any form of bypass.
Five operating modes (Cooling, Heating, Dehumidification, Automatic and Fan Only), in order to ensure maximum comfort under any conditions; automatic programs designed specifically for different installation locations are also available (residential, office, restaurant, etc.)

- Heat pump functioning with reverse cooling cycle and defrost control
- Centrifuge fan with 4 speed settings (Minimum, Medium, Maximum, and Turbo)
- Rotary DC Inverter compressor
- Microprocessor control
- Infrared remote control with liquid crystal screen for controlling all the functions
- Convenient control panel on-board the machine; the control panel even features a display with various icons, which allows the user to view information regarding the unit's functionality
- The practical timer function allows the user to set and program the desired start-up and shutdown times within a span of 24 hours, even when the user is absent.
- Nigh-time Wellness function (SLEEP)
  This function regulates the ambient temperature based on the curve of the body's temperature throughout the night, thus ensuring a restful night's sleep, for greater productivity and efficiency during the day.
- The Prolonged Ventilation Function (X-FAN) is used to prevent the formation of mould in the indoor unit during Cooling and Dehumidification
- Smart preheat function to avoid jets of cold air (Heating Mode)
- Self-diagnostics function
- Auto-Restart function in the event of a sudden power failure
- Outdoor unit defrost function
- Outdoor unit equipped with a condensate discharge connection
- Regenerable air filter
- Dual motorised fins, which can be controlled using the remote handset in order to adjust the direction of the airflow both vertically and horizontally, with 5 fixed or floating positions (SWING)
- Refrigerant lines with flared ends
- Easy installation and maintenance.

Technical data

Indoor Units				**SC1200V**
Outdoor Units				**SC1200**
Cooling Capacity	Nominal (Min-Max)		W	12000 (3000 - 13000)
Input Power	Nominal (Min-Max)		W	4000 (660 - 5400)
Input Current			A	6,0
Moisture Removed			l/h	5
Seasonal Efficiency	Energy Efficiency Class	(1)		A
	SEER			5,1
	Pdesignc		kW	12,0
	Annual Power Consumption		kWh/year	824
Heating Capacity	Nominal (Min-Max)		W	13600 (3400 - 14000)
Input Power	Nominal (Min-Max)		W	4200 (700 - 4400)
Input Current			A	6,5
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A
	SCOP			3,8
	Pdesignh		kW	11,0
	Annual Power Consumption		kWh/year	4053
Refrigerant Gas			Type / GWP	R410A / 2088kgCO2eq
Refrigerant Charge			kg	3,5
EER		(2)	W/W	3,00
COP		(2)	W/W	3,24
Nominal Input Power		(3)	W	5400
Nominal Input Current		(3)	A	9,5

Indoor Units			SC1200V
Air flow rate	Turbo/Max/Med/Min	m^3/h	1850/1800/1700/1530
Sound Power	Turbo/Max/Med/Min	dB(A)	63/61/58/56
Sound Pressure	Turbo/Max/Med/Min	dB(A)	52/50/48/45

Outdoor Units				SC1200
Air flow rate	Max		m^3/h	2000
Sound Power	Max		dB(A)	70
Sound Pressure	Max	(4)	dB(A)	63
Compressor			Type	DC Rotary Inverter
Chiller Connections	Liquid		inch	3/8"
	Gas		inch	5/8"
Chiller Lines	Øe Liquid		mm (inch)	9,52 (3/8")
	Øe Gas		mm (inch)	15,9 (5/8")
	Pipe length	Max	m	25
	Height difference	Max	m	10
Power Supply			Indoor Unit	220-240V~50Hz/60Hz
			Outdoor Unit	380-415V 3N~50Hz/60Hz

Raffrescamento (EN-14511 e EN-14825)
Temperatura Aria Ambiente 27°C b.s. / 19 b.u.; Temperatura Aria Esterna 35°C; Velocità Max; Lunghezza Linee Frigorifere 5m

Riscaldamento (EN-14511 e EN-14825)
Temperatura Aria Ambiente 20°C b.s.; Temperatura Aria Esterna 7°C b.s. / 6°C b.u.; Velocità Max; Lunghezza Linee Frigorifere 5m

Min = Minima; Max = Massima

(1) Dati in accordo con il Regolamento Delegato (UE) N. 626/2011

(2) EER/COP in accordo alla Normativa (EN-14511), dichiarati solo al fine delle detrazioni fiscali in vigore all'atto della realizzazione di questa pubblicazione

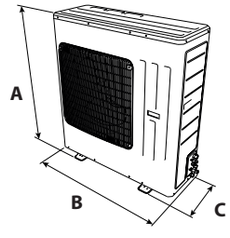
(3) La *Potenza Nominale Assorbita (Corrente Nominale Assorbita)*, è la *Massima Potenza Elettrica Assorbita (Corrente Massima Assorbita)* dal sistema, in accordo con la Normativa EN-60335-1 e EN-60335-2-40

(4) Pressione Sonora misurata in Camera Anecoica a 1,5m di distanza frontale

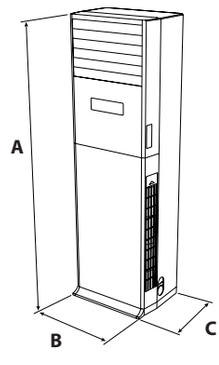
SIZES AND WEIGHTS

			SC1200	SC1200V
Height	A	mm	1107	1870
Width	B	mm	1086	580
Depth	C	mm	440	400
Weight		kg	89	58

SC1200



SC1200V



Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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www.aermec.com

Code: SSCUY.02 / 1712

FK

Packaged Air Conditioner
Cooling Capacity from 2,7 to 3,6 kW

Window Type Installation

- Very quiet operation
- Motorised vertical fins for optimal airflow control
- Easy installation and maintenance
- SLEEP Night-time Comfort Program



PLUG & PLAY

A
Cooling

FEATURES

- **FK**
- Packaged Unit available in 2 sizes.
- Packaged Unit with reduced dimensions
- Packed Plug & Play unit equipped with power supply with Schuko plug.
- Rotary DC Inverter compressor.
- Centrifugal Fan Inner Side.
- Axial Fan Outer Side.
- Very quiet operation.
- Motorised vertical fins for optimal airflow control.
- Adjustable horizontal fins.
- Air filter easy to remove and clean.
- Clean Filter Signal function.
- Front Control Panel with LED display and indicator lights to control all functions.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- The fan comes with three speeds, which can be selected with the FAN button.
- Operating mode: Heating, Dehumidification and Fan Only.
- Microprocessor control
- Timer for programming switch-off or switch-on.
- Auto-restart function.
- SWING function: allows you to activate the continuous oscillation of the vertical fins.
- SLEEP Night-time Comfort Program.
- Self-diagnosis function
- Easy installation and maintenance
- Condensate discharge tub included.

TECHNICAL DATA

Packaged Unit				FK260	FK360
Cooling Capacity	Nominal		kW	2,70	3,65
Input Power	Nominal		kW	0,78	1,03
Input Current	Nominal		A	3,5	4,6
Moisture Removed			l/h	1,00	1,60
Seasonal Efficiency	Energy Efficiency Class	(1)		A	A
	SEER			5,2	5,4
	Pdesignc		kW	2,7	3,7
	Annual Power Consumption		kWh/annum	182	240

Refrigerant Gas			Type / GWP	R32 / 675 kgCO_2eq.	
Filling coolant gas			kg	0,51	0,63
EER		(2)		3,45	3,54
Nominal Input Power		(3)	kW	1,10	1,30
Nominal Input Current		(3)	A	5,5	6,5

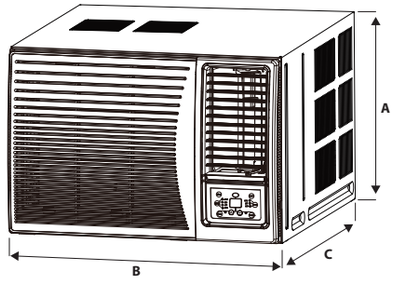
Inner side					
Fan			Type	Centrifugal	Centrifugal
Air flow rate	Min / Med / Max		m³/h	320 / 360 / 400	380 / 430 / 480
Sound Pressure	Min / Med / Max	(4)	dB(A)	46 / 48 / 50	46 / 48 / 50
Sound Power	Min / Med / Max		dB(A)	55 / 57 / 59	55 / 57 / 59

Outer side					
Protection Rating				IPX4	IPX4
Compressor			Type	Rotary	Rotary
Fan			Type	Axial	Axial
Air flow rate	Max		m³/h	800	1200
Sound Pressure	Min / Med / Max	(4)	dB(A)	52 / 54 / 56	52 / 54 / 56
Sound Power	Min / Med / Max		dB(A)	61 / 63 / 65	61 / 63 / 65
Power Supply				220-240V ~ 50Hz	

Cooling (EN-14511 and EN-14825)
Room air temperature 27°C D.B. / 19°C W.B. Outside air temperature 35°C; Max. speed

Min = Minimum; Med = Medium; Max = Maximum
(1) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(2) EER In accordance with standard (EN-14511).
(3) The Nominal Input Power (Nominal Input Current) is the Maximum Input Electrical Power (Maximum Input Current) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
(4) Sound Pressure measured in a semi anechoic chamber at a distance of 1.5m from the front of the unit.

DIMENSIONS AND WEIGHTS



Unit dimensions			FK260	FK360
Height	(A)	mm	375	428
Width	(B)	mm	560	660
Depth	(C)	mm	710	700
Net weight		kg	43	50

Package Dimensions			
Package Height	mm	425	505
Package Width	mm	623	739
Package Depth	mm	806	793
Gross weight	kg	47	54

SPLIT

Cod.: SFKUY.02 / 1712

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CMP

Vertical installation

Packaged Heating Pump without Outdoor Unit

Cooling capacity 2,35k
Heating capacity 2,36kW

- Vertical installation
- Ideal solution for local residential and commercial use enough a wall where make two holes
- Low electrical consumption





Telecomando



Griglie pieghevoli

A+ Cooling

A Heating

FEATURES

CMP23I is the Aermec room air conditioner that needs no outdoor unit, simply make two 162mm holes in the perimeter wall, to allow the air conditioner exchanging heat with the outdoor environment.

CMP23I is a double duct monobloc conditioner, extremely thin, with its depth of only 16 cm, and with elegant design that makes it suitable for all types of rooms.

The absence of an outdoor unit makes it possible to install CMP23I in all cases where architectural constraints prevent the installation of a split air conditioner.
CMP23I installation is extremely simple, even the flow and suction grids can be fitted from the inside, once the two holes in the perimeter wall have been made.

The New BLDC Inverter technology (Brushless Direct Current), for compressor and fans, reduces energy consumption, controls with precision performance and air flow for improved room comfort and finally achieves exceptional sound pressure values. The Inverter technology allows achieving the energy efficiency class A+ when cooling and at partial loads power consumption falls below 300W.

The CMP23I is equipped with a touch control panel installed on the unit, but is also supplied with a handy-sized remote control that can be fixed to the unit's panel thanks to its built-in magnet.
From the control panel you can exclude the Heating mode, transforming the CMP23I in a Cooling Only unit, avoiding the creation of the condensate drain necessary, instead, in winter operation to dispose of the water generated during the defrost cycle. In this regard, to facilitate this drain, the condensate collection tray is heated by the cooling circuit to avoid blockages related to the presence of ice during the winter season.

TECHNICAL DATA

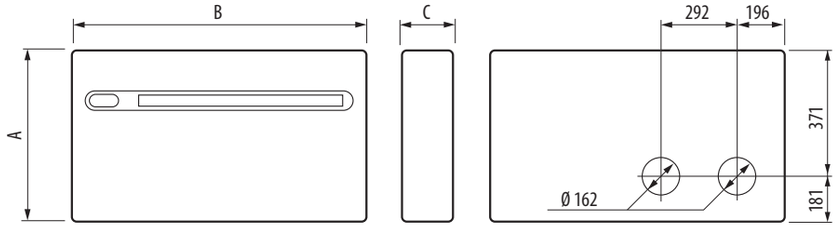
CMP			23I
Power supply		V/ph/Hz	230V~50Hz
Cooling performance			
Cooling Capacity	(1)	kW	2,35
Cooling Power Input	(1)	kW	0,73
EER			3,22
Energy Efficiency Class	(2)		A+
Annual Power Consumption		kW/h	425
Moisture Removed		l	1,1
Heating performance			
Heating Capacity	(3)	kW	2,36
Cooling Power Input	(3)	kW	0,72
COP			3,28
Energy Efficiency Class	(2)		A

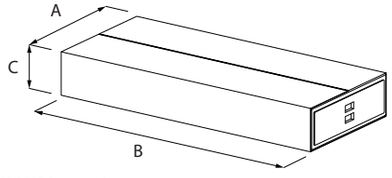
Compressor			
Compressor		n°	1
Power Consumption min.		kW	0,3
Circuit		n°	1
Refrigerant		Type/GWP	R410A / 2088kgCO2eq
Fans			
Fan		Type/n°	centrifugal/1
Spedd indoor/outdoor		n°	3
Air flow rate spedd. max indoor/outside		m³/h	400/480
Air flow rate spedd. average indoor/outside		m³/h	320/390
Air flow rate spedd. min indoor/outside		m³/h	270/340
Diameter holes in the wall			
Diameter holes in the wall		Ø	162
Interasse fori a parete		Ø	293
Sound data			
Sound power level max	(4)	dB(A)	58
Sound pressure level min./max.	(5)	dB(A)	36 / 46

Range of operation			**Room temperature**	**Outside air temperature**
Cooling mode	(1)	°C	27°C D.B. / 19°C W.B.	35°C D.B. / 24°C W.B
Heating mode	(1)	°C	20°C D.B. / 15°C W.B.	7°C D.B. / 6°C W.B.

Dati (14511:2013)
(1) Ambient air temperature b.s. 27°C / b.u. 19°C, Outside air temperature b.s. 35°C / b.u. 24°C (EN 14511)
(2) EEC Efficiency Energy Class 626/2011
(3) Ambient air temperature b.s. 20°C / b.u. 15°C, Outside air temperature b.s. 7°C / b.u. 6°C (EN 14511)
(3) Water evaporator 23°C/18°C, External air 35°C
(4) Sound Pressure level 1,5 m front distance
(5) Inside Sound pressure measured in a semi anechoic chamber

DIMENSION (MM)





PACKAGING (example)

Mod COMPACT			**23**
Height	A	(mm)	555
Larghezza	B	(mm)	1030
Depth	C	(mm)	170
Weight		(kg)	48

Dimension PACKAGING			
A/B/C		(mm)	660/1100/260

SPLIT

Cod.: SCOMPACTUY.01 / 1712

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PSD300

LOCAL AIR CONDITIONER (PORTABLE)
Cooling capacity 2.9 kW

- **Compact, manoeuvrable and silent**
- **Easy installation**
- **Cold Plasma Generator *(air Ionizer)***
- **Refrigerant gas R32, the ecological solution**



A+
Cooling

Local air conditioner (portable), ideal for cooling, dehumidifying or ventilation only both at home and at the office.
Adapts to any kind of decor, thanks to its compact and elegant design.
The easily transportable and installable local air conditioner (portable) is mounted on wheels and can be used in multiple rooms.

The use of R32 Refrigerant Gas allows high energy efficiency and a lesser influence on global warming.

The on-board control panel with display allows to easily and precisely set the desired temperature set-points.
Remote control and remote control holder included.

Equipped with a specific tank to collect the moisture removed from the environment during cooling or dehumidification.

Air Ionizer *(Cold Plasma Generator)*: this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria.
The result is clean, ionized air, free of foul odours.

Operation

The cooled and/or dehumidified air exits the front grille and directed both horizontally and vertically by movable fins. The air to be treated is drawn through filters from the rear and from the side.
The hot air is expelled through a hose that is attached by means of a special flange on the rear of the local air conditioner (portable) unit.
Easily removable and washable air filters.

OPERATING MODE

Cooling, Dehumidification, **Ventilation only, Auto.**
In AUTO operation, the system automatically selects the operating mode most suitable to render the environment comfortable.

AVAILABLE FUNCTIONS

- **Timer**
  This function allows to program the start-up or shut-down of the unit.
- **Auto-Restart**
  The unit stores the settings during operation.
  After a sudden stop caused by an interruption of the power supply, the unit resumes operation with the settings stored previously.
- **Night-time Comfort Program (Sleep)**
  The Night-time Comfort Program changes the room temperature over time compared to the Cooling temperature set to obtain the ideal well-being conditions during the night.
- **3 Ventilation speed**
  LOW - MEDIUM - HIGH
- **Auto ventilation function (automatic)**
  The Auto function adapts the ventilation speed to the detected room temperature.
- **X-FAN**
  After switching off the indoor unit, the fan continues to run for a few minutes, drying the coil to prevent mould growth.
- **Health**
  This function activates the ***Cold Plasma Generator*** device - **air Ionizer**
- **Light function**
  Activates the illumination of the unit's display by remote control.

SUPPLIED ACCESSORIES

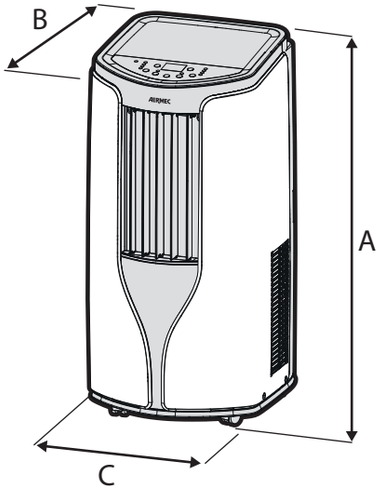
— Hot air expulsion hose with special joints and collectors
— Condensate discharge hose, discharge tap and relative fixing accessories.
— Window kit and protection mesh to connect the hot air expulsion hose
— Remote control and remote control holder.

TECHNICAL DATA

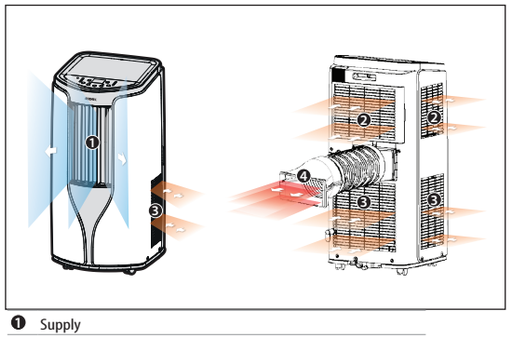
Model					PSD300
Cooling Capacity	Nominal	(1)		kW	2,9
Input Power	Nominal	(1)		kW	0.9
Input Current				A	4,3
Moisture Removed				l/h	1,6
Energy Efficiency Class		(2)			A^{+}
EER		(3)		W/W	3,1
Refrigerant Gas				Type / GWP	R32 / 675 kgCO_2eq
Filling coolant gas				kg	0,55
Nominal Input Power		(4)		kW	1,2
Nominal Input Current		(4)		A	5,7
Hourly energy consumption				kWh/60min	0.9
Air flow rate			(H/M/L)	m^3/h	360/330/300
Sound power		(5)	(H/M/L)	dB(A)	65/64/63
Sound pressure		(5)	(H/M/L)	dB(A)	53/51/49
Compressor				Type	Rotary
Power Supply				V~Hz	220-240V ~ 50Hz
Temperature set-points		(6)		°C	16~30
Ambient temperature conditions				°C	16~35
Hose length (min / max)				m	0,36~1,5

(1) Cooling (EN-14511 and EN-14825)
Ambient air temperature 35°C D.B. / 24°C W.B.
(2) Data in accordance with Delegated Regulation (EU) No. 626/2011
(3) EER in accordance with Standard EN-14511, declared only for the purpose of the tax exemptions in force upon the creation of this publication
(4) The Nominal Input Power (Nominal Input Current) is the Maximum Input Electrical Power (Maximum Input Current) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(5) Sound pressure measured in an anecoic chamber at a distance of 1.5m from the front of the unit
(6) Temperature range to be set by remote control or unit's front panel.

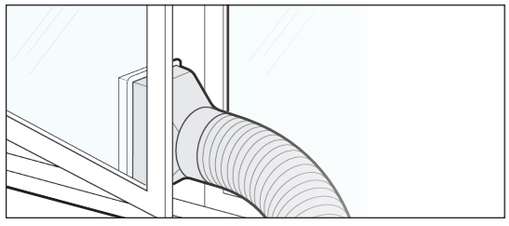
SIZES AND WEIGHTS



DIMENSIONS		
Model		**PSD300**
Without package		
A x B X C	mm	820x405x390
With package		
A x B X C	mm	862x581x455
Weight		
Net weight	kg	36
Gross weight	kg	42,5



❶ Supply
❷ Room air intake to the evaporator
❸ Room air intake to the condenser
❹ Air discharge





SPLIT

Cod.: SPSD300UY00 / 18.01

AERMEC

R410A MONOSPLIT INVERTER

CK

Reversible Split System Heat Pumps

Cooling Capacity 2,7kW ÷ 5,2kW
Heating Capacity 2,8kW ÷ 5,3kW

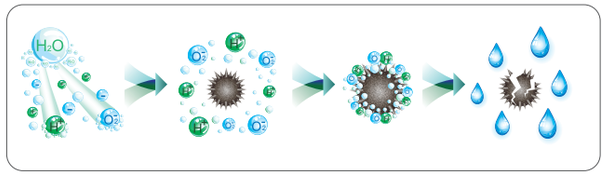
Console Type Monosplit

- Universal Indoor Units:
  can be combined with Mono-Split and Multi-Split System
- Standard Wi-Fi module
- Low Cooling function: cooling operation with outdoor temperatures down to -15°C.
- Low Heating function: heating operation with outdoor temperatures down to -20°C.



CK261FS - CK361FS - CK501FS

***COLD PLASMA GENERATOR** **



A++ Cooling
A+ Heating (Average)

FEATURES

Outdoor Units

- CK
- Outdoor Unit available in 3 sizes.
- Outdoor Unit fitted with a Electrical Anti-Freeze Heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Outdoor unit with DC inverter rotary compressor.
- Outdoor unit with DC inverter fan.
- Particularly quiet operation.
- Outdoor unit fitted with an electronic expansion valve.

Indoor Units

- CK_FS
- Indoor unit available in 3 sizes.
- Indoor console unit for vertical installation.
- Indoor unit with DC inverter radial fan.
- The indoor unit fan works at 7 speeds, 5 of which can be directly selected using the "FAN" key, while the other 2 are set by means of a specific key. "QUIET" for extremely quiet operation. "TURBO" for reaching the required temperature as quickly as possible.
- "AUTO" function for continuous speed variation.
- "Anti-freeze" function for maintaining a minimum temperature of 8°C indoors during the winter months.
- "I FEEL" function: for activating the ambient temperature probe in the remote control, for even greater comfort.
- Indoor unit fitted with two delivery inlets for optimum air flow control and greater ambient comfort. One air delivery inlet is located in the top part, and the other is in the bottom part.
- It is possible, however, to set upper delivery only by means of a specific microswitch beneath the front panel.
- Horizontal and vertical motorised fins for optimum air flow control.
- Air filter that's easy to remove and clean.
- Air ioniser (Cold Plasma Generator).
- Infrared remote control with backlit liquid crystal display for controlling all the functions.
- Particularly quiet operation.

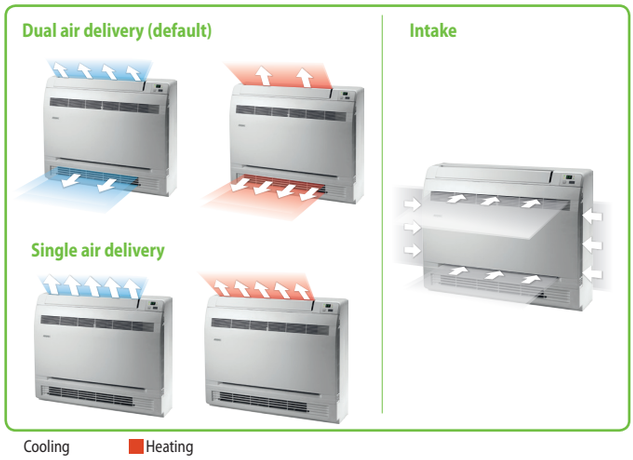
General Features

- Operating mode: Cooling, Heating, Dehumidification, Automatic and Fan Only.
- Microprocessor control.
- Auxiliary emergency command
- (ON/OFF key on the indoor unit).
- Front panel of indoor unit with LED display and indicator lights.
- Timer for programming switch-off and switch-on.
- 3 Night-time Comfort programmes.
- Auto-restart function.
- Self-diagnosis function.
- Flared refrigerant connections.
- Easy installation and maintenance.
- Low Cooling function: cooling operation with outdoor temperatures down to -15°C.
- Low Heating function: heating operation with outdoor temperatures down to -20°C.

Standard Wi-Fi module

Using this module and the special App for iOS and Android devices (freely available on Apple Store and Google play), the system can be controlled from a distance, directly via your smartphone or tablet. The remote control can be done by Cloud System with a Wireless Router connected to the internet.
The following table shows the compatibility between the Internal Units and the models WIFIKIT available.

Air Ionizer *(Cold Plasma Generator): reduces the polluting agents, decomposing their molecules by means of electrical charges and causing the division of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous polluting agents creating substances that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air without any unpleasant odours.



TECHNICAL DATA

Indoor Units				**CK261FS**	**CK361FS**	**CK501FS**
Outdoor Units				**CK261**	**CK361**	**CK501**
Cooling Capacity	Nominal (Min-Max)		kW	2,7 (0,5-3,33)	3,5 (1,03-3,8)	5,2 (1,26-6,6)
Cooling Power Input	Nominal (Min-Max)		kW	0,7 (0,2-1,3)	1,1 (0,93-1,35)	1,6 (0,38-2,45)
Cooling Current Input			A	3,45	4,8	7,1
Moisture Removed			l/h	0,80	1,20	1,80
Seasonal Efficiency	Energy Efficiency Class	(1)		A^{++}	A^{++}	A^{++}
	SEER			6,5	6,4	6,50
	Pdesignc		kW	2,7	3,5	5,2
	Annual Power Consumption		kWh / annum	145	192	280
Heating Capacity	Nominal (Min-Max)		kW	2,8 (0,5-3,5)	3,75 (1,25-4,4)	5,33 (1,12-6,8)
Heating Power Input	Nominal (Min-Max)		kW	0,74 (0,2-1,4)	1,0 (0,19-1,6)	1,55 (0,35-2,5)
Heating Current Input			A	3,4	4,3	6,7
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A^{+}	A^{+}	A^{+}
	SCOP			4,0	4,0	4,10
	Pdesignh		kW	2,7	3,5	5,0
	Annual Power Consumption		kWh / annum	945	1225	1707

Refrigerant Gas			Type / GWP		R410A / 2088kgCO_2eq	
Refrigerant Charge			kg	0,9	0,95	1,3
EER		(2)	W/W	3,67	3,18	3,25
COP		(2)	W/W	3,76	3,75	3,55
Rated Power Input		(3)	kW	1,4	1,6	2,5
Rated Current Input		(3)	A	5,85	5,9	10,9
Indoor Units						
Air flow rate	Turbo / Quiet		m^3/h	500/250	600/280	700/320
Sound Power	Turbo / Quiet		dB(A)	52/34	52/35	57/41
Sound Pressure	Turbo / Quiet	(4)	dB(A)	40/23	42/25	47/31
Outdoor Units						
Air flow rate	Max		m^3/h	1600	1600	3200
Sound Power	Max		dB (A)	62	62	65
Sound Pressure	Max	(4)	dB (A)	52	52	57
Compressor			Type		Twin Rotary DC Inverter	
Refrigerant Connections	Liquid		inch	1/4"	1/4"	1/4"
	Gas		inch	3/8"	3/8"	1/2"
Refrigerant Lines	Øe Liquid		mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Øe Gas		mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
	Pipe length	Max	m	15	20	25
	Height difference	Max	m	10	10	10
Power Supply					220-240V ~ 50Hz	

Cooling (EN-14511 and EN-14825)

Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m

Heating (EN-14511 and EN-14825)

Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m

Min = Minimum; Med = Medium; Max = Maximum.

(1) Data in accordance with Delegated Regulation (EU) No. 626/2011

(2) EER/COP in accordance with the Standard (EN-14511)

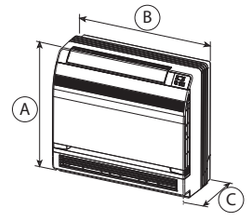
(3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40

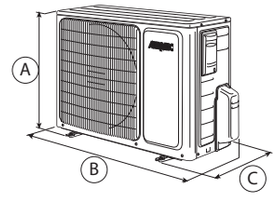
(4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

SIZES AND WEIGHTS

Indoor Unit			**CK261FS**	**CK361FS**	**CK501FS**
Height	(A)	mm	600	600	600
Width	(B)		700	700	700
Depth	(C)		215	215	215
Net weight		kg	15,5	15,5	15,5
Gross weight			18,5	18,5	18,5

Outdoor Unit			**CK261**	**CK361**	**CK501**
Height	(A)	mm	540	540	700
Width	(B)		776	776	955
Depth	(C)		320	320	396
Net weight		kg	31	31,5	46
Gross weight			33,5	34	50,5





Cod.: SCKUY.03 / 1712

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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www.aermec.com

LCI

Split Sy Reversible Heat pumps

Cooling Capacity from 2.7 to 16 kW
Heating Capacity from 2.9 to 17 kW

MONOSPLIT Cassette - Duct - Floor Ceiling

WIRED CONTROL PANEL AND REMOTE CONTROL STANDARD ON ALL INDOOR UNITS



Wired control panel



Remote control

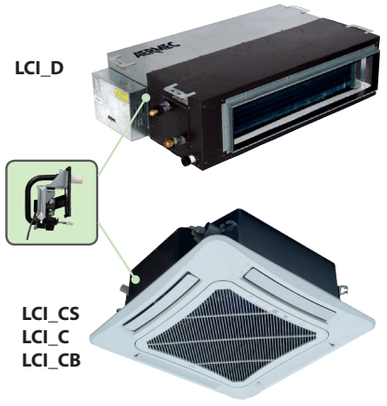
Outdoor Units



Indoor Units



LCI_F



LCI_D

LCI_CS
LCI_C
LCI_CB

Indoor Units CASSETTES and DUCT equipped with Condensate Drain Pump.

FEATURES

Outdoor Units:
- **LCI**
- **LCI**: Single-phase available in 8 sizes.
- **LCI_T**: Three-phase available in 4 sizes.
- Outdoor Units equipped with **Base Electric Resistance** to prevent the possible formation of ice and favour the disposal of condensation during Heating functioning with extremely stiff Outdoor Temperatures. It can be activated by simply connecting its terminal inside the electric box. In this case you switch from a heating Operational Limit of -10°C to -20°C of Outdoor Temperature.
- Outdoor Units equipped with *DC Inverter Compressor.*
- Outdoor Units equipped with one or two fans with variable-speed DC *Inverter motor.*
- Outdoor Units equipped with *Electronic Expansion Valve.*

Indoor Units:
- **CASSETTES (Suspended ceiling installation)**
- **LCI_CS**
  600 x 600
  (coupling with the GL40S accessory is mandatory).
  LCI_C
  840 x 840
  (coupling with the GL40 accessory is mandatory).
  LCI_CB
  910 x 910
  (coupling with the GL40B accessory is mandatory).
- **DUCTED (Horizontal Installation)**
  LCI_D
- **FLOOR CEILING (Wall and/or ceiling installation)**
  LCI_F

Cassettes Indoor Units and DUCT equipped with Condensate Drain Pump.

General Features:
- R410A Refrigerant gas.
- Air filters with easy extraction and cleaning.
- Easy installation and maintenance.
- Functioning mode: Cooling, Heating, Dehumidification, Automatic and Fan Only.
- Infrared remote control and Wired control panel with liquid crystal display for controlling all functions.
- Possibility to set the Room Temperature Probe in intake of the Indoor Unit or in the Wired control panel.
- Microprocessor control.
- Timer for programming switch-on and/or switch-off.
- Night time well-being program.
- Auto-Restart function: active by default with possibility to disable.
- Self-diagnostics function.
- Flared type refrigerant lines connections.
- Extremely silent functioning.
- Indoor Units equipped with Serial Communication Port RS-485 that can be used to control, via MODBUS Protocol, all System variables.
- **Low Cooling Function:**

Functioning in Cooling mode with Outdoor Temperatures up to -15°C

- **Low Heating Function:**

Functioning in Heating mode with Outdoor Temperatures up to -10°C.
Limits extended up to -20°C with

Anti-freeze electric resistance activated.

CASSETTE TECHNICAL DATA

Indoor Units			LCI	350CS	500CS	700C	850C	1000C	1000C	1200C	1200C	1400CB*	1400CB*	1600CB*
Outdoor Units			**LCI**	**350**	**500**	**700**	**850**	**1000**	**1000T**	**1200**	**1200T**	**1400***	**1400T***	**1600T***
Cooling Capacity	Nominal	kW		3,50	5,00	7,00	8,30	10,00	10,00	11,00	11,00	14,00	14,00	16,00
	Min			0,90	1,60	2,40	2,60	3,20	3,20	3,30	3,30	6,00	6,00	6,50
	Max			3,90	5,50	8,50	9,20	11,50	11,50	12,00	12,00	14,80	14,80	16,50
Seasonal Efficiency	SEER	W/W		5,6	5,6	6,1	6,1	6,1	6,1	5,6	6,1	-	-	-
	Energy Efficiency Class (1)	-		A^{+}	A^{+}	A^{++}	A^{++}	A^{++}	A^{++}	A^{+}	A^{++}	-	-	-
	Annual Electricity Consumption	kWh/annum		219	313	402	477	574	574	688	632	-	-	-
	Pdesignc	kW		3,5	5,0	7,0	8,3	10,0	10,0	11,0	11,0	-	-	-
Total Input Power	Nominal	kW		1,09	1,60	2,18	2,67	3,20	3,12	3,90	3,90	4,60	5,15	5,70
	Min			0,30	0,55	0,85	0,85	0,75	0,75	0,53	0,53	1,30	1,30	1,20
	Max			1,40	1,75	2,50	2,70	4,50	4,50	4,65	4,65	5,50	5,50	6,90
Heating Capacity	Nominal	kW		3,80	5,50	8,00	9,20	12,00	12,00	12,50	12,50	16,00	16,00	17,00
	Min			0,90	1,40	2,40	2,40	2,90	2,90	3,60	3,60	5,20	5,20	5,20
	Max			4,10	6,50	9,50	9,90	14,50	14,50	15,00	15,00	18,00	18,00	20,00
Seasonal Efficiency (Temperate Climate)	SCOP	W/W		4,0	3,8	4,0	4,0	4,0	4,0	4,0	4,0	-	-	-
	Energy Efficiency Class (1)	-		A^{+}	A	A^{+}	A^{+}	A^{+}	A^{+}	A^{+}	A^{+}	-	-	-
	Annual Electricity Consumption	kWh/annum		1050	1658	2520	2660	3640	3640	3225	3325	-	-	-
	Pdesignh	kW		3,0	4,5	7,2	7,6	10,4	10,4	9,5	9,5	-	-	-
Total Input Power	Nominal	kW		1,05	1,58	2,21	2,57	3,50	3,32	3,80	3,80	4,50	4,50	4,70
	Min			0,22	0,50	0,80	0,80	0,60	0,60	0,64	0,64	1,20	1,20	1,20
	Max			1,20	1,90	2,75	2,86	4,80	4,80	4,80	4,80	5,40	5,40	6,90
Refrigerant Gas		Type / GWP		R410A / 2088kgCO_2eq										
Refrigerant Charge		kg		1,2	1,4	2,2	2,4	3,5	3,5	3,7	3,7	4,0	4,0	5,0
EER (2)		W/W		3,21	3,12	3,21	3,11	3,13	3,21	2,82	2,82	3,04	2,72	2,81
COP (2)		W/W		3,62	3,48	3,62	3,58	3,43	3,61	3,29	3,29	3,56	3,56	3,62
Rated Input Power (3)		kW		1,90	2,50	4,00	4,10	4,85	4,85	4,90	4,90	6,70	6,70	7,40
Rated Input Current (3)		A		8,90	11,50	18,40	19,00	22,50	8,70	22,70	8,70	32,20	12,00	13,20
Indoor Units														
Air Flow rate	Turbo / Min	m^3/h		700/460	760/500	1300/1000	1500/1000	1860/1350	1860/1350	1860/1350	1860/1350	2300/1500	2300/1500	2400/1500
Sound Pressure (4)	Turbo / Min	dB(A)		46/36	47/37	47/38	49/40	51/43	51/43	51/43	51/43	53/41	53/41	55/41
Electric power supply		V-Hz		(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Outdoor Units														
Air Flow rate	Max	m^3/h		1800	3200	4000	4000	5100	5100	6600	6600	6600	6600	8800
Sound Power	Max	dB(A)		62	64	65	65	70	70	70	70	70	70	75
Sound Pressure (4)	Max	dB(A)		52	54	55	55	60	60	60	60	60	60	65
Compressor	Type	-		DC-Inverter										
Electric power supply				(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid	inch		1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas	inch		3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant Lines	Øe Liquid	mm		6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
		(inch)		(1/4")	(1/4")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")
	Øe Gas	mm		9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19,05
		(inch)		(3/8")	(1/2")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(3/4")
	Pipe Length Max	m		20	20	30	30	30	30	50	50	50	50	50
	level difference Max	m		15	15	15	15	15	15	30	30	30	30	30

***LCI1400 - LCI1400T - LCI1600T:** The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with Nominal Cooling Capacity above 12kW, therefore, the labelling requirements and the additional product information are not entered.

Cooling (EN-14511 and EN-14825)
Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m
Heating (EN-14511 and EN-14825)
Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m
Min = Minimum; Med = Medium; Max = Maximum

(1) Data in accordance with Delegate Regulation (EU) No.626/2011
(2) EER/COP in accordance with the Standard (EN-14511), declared only for the purpose of tax deductions in force upon realisation of this publication
(3) The Rated Input Power (Rated Input Current), is the Maximum Electric Input Power (Maximum Input Current) by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
(4) Sound Pressure measured in Anechoic Chamber at 1.5m from the front
(5) Electric Power supply: 220-240V ~ 50Hz
(6) Electric Power supply: 380-415V 3N ~ 50Hz

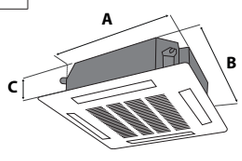
DIMENSIONS AND WEIGHTS

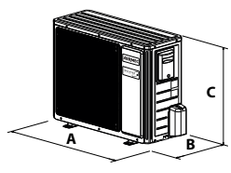
Outdoor Unit			LCI350	LCI500	LCI700	LCI850	LCI1000	LCI1000T	LCI1200	LCI1200T	LCI1400	LCI1400T	LCI1600T
Width	(A)		850	955	980	980	1105	1105	960	960	960	960	1085
Depth	(B)	mm	320	395	425	425	440	440	410	410	410	410	425
Height	(C)		540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight		kg	34	47	67	71	92	98	95	108	105	114	126

Indoor Unit		LCI	350CS	500CS	700C	850C	1000C	1200C	1400CB	1600CB
Width	(A)		596	596	840	840	840	840	910	910
Depth	(B)	mm	596	596	840	840	840	840	910	910
Height	(C)		240	240	240	320	320	320	290	290
Net Weight		kg	20	20	26	31	31	31	43	43

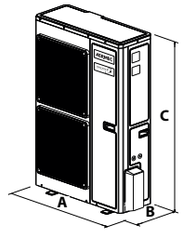
Grid*		GL40S	GL40	GL40B
Dimensions	mm	670 x 670 x 50	950 x 950 x 60	1040 x 1040 x 65
Net Weight	kg	3,5	7	8

*Mandatory accessory





LCI350 - LCI500
LCI700 LCI850 - LCI1000 - LCI1000T



LCI1200 - LCI1200T
LCI1400 - LCI1400T - LCI1600T

SPLIT

DUCT TECHNICAL DATA

Indoor Units			**LCI**	**270D**	**350D**	**500D**	**700D**	**850D**	**1000D**	**1000D**	**1200D**	**1200D**	**1400D***	**1400D***	**1600D***
Outdoor Units			**LCI**	**270**	**350**	**500**	**700**	**850**	**1000**	**1000T**	**1200**	**1200T**	**1400***	**1400T***	**1600T***
Cooling Capacity	Nominal	kW		2,70	3,50	5,00	7,00	8,30	10,00	10,00	11,50	11,50	14,00	14,00	16,00
	Min			0,80	0,90	1,60	2,20	2,40	3,20	3,20	3,60	3,60	6,00	6,00	6,80
	Max			3,50	3,90	5,80	8,50	8,70	11,50	11,50	12,50	12,50	14,50	14,50	17,50
Seasonal Efficiency	SEER	W/W		5,6	5,6	5,6	6,1	6,1	5,6	5,1	5,6	5,6	-	-	-
	Energy Efficiency Class (1)	-		A+	A+	A+	A++	A++	A+	A	A+	A+	-	-	-
	Annual Electricity Consumption	kWh/annum		169	219	313	402	477	625	687	719	719	-	-	-
	Pdesignc	kW		2,7	3,5	5,0	7,0	8,3	10,0	10,0	11,5	11,5	-	-	-
Total Input Power	Nominal	kW		0,84	1,17	1,55	2,18	2,67	3,20	3,12	4,00	4,00	4,70	5,10	5,60
	Min			0,20	0,20	0,55	0,85	0,85	0,70	0,70	0,65	0,65	1,40	1,40	1,20
	Max			1,28	1,40	1,75	2,50	2,70	4,50	4,50	4,70	4,70	5,60	5,60	6,90
Heating Capacity	Nominal	kW		2,90	3,80	5,60	8,00	9,20	12,00	12,00	13,50	13,50	15,50	15,50	16,50
	Min			0,80	0,90	1,40	2,40	2,40	2,90	2,90	3,90	3,90	5,20	5,20	5,30
	Max			3,80	4,10	6,80	9,50	9,90	14,50	14,50	15,50	15,50	17,00	17,00	18,80
Seasonal Efficiency (Temperate Climate)	SCOP	W/W		3,8	4,0	3,8	4,0	4,0	4,0	4,0	3,8	4,0	-	-	-
	Energy Efficiency Class (1)	-		A	A+	A	A+	A+	A+	A+	A	A+	-	-	-
	Annual Electricity Consumption	kWh/annum		1032	1050	1658	2450	2660	3640	3640	3869	3675	-	-	-
	Pdesignh	kW		2,8	3,0	4,5	7,0	7,6	10,4	10,4	10,5	10,5	-	-	-
Total Input Power	Nominal	kW		0,80	1,05	1,55	2,21	2,57	3,40	3,32	3,90	3,90	4,40	4,50	4,57
	Min			0,20	0,22	0,50	0,80	0,80	0,70	0,70	0,76	0,76	1,30	1,30	1,20
	Max			1,20	1,20	1,90	2,75	2,86	4,60	4,60	4,75	4,75	5,50	5,50	6,90
Refrigerant Gas		Type / GWP		R410A / 2088kgCO2eq											
Refrigerant Charge		kg		1,2	1,2	1,4	2,2	2,4	3,5	3,5	3,7	3,7	4,0	4,0	5,0
EER (2)		W/W		3,21	3,00	3,23	3,21	3,11	3,13	3,21	2,88	2,88	2,98	2,75	2,86
COP (2)		W/W		3,61	3,62	3,61	3,62	3,58	3,53	3,61	3,46	3,46	3,52	3,44	3,61
Rated Input Power (3)		kW		1,70	1,90	2,50	4,00	4,10	4,75	4,85	4,85	4,90	6,70	6,70	7,40
Rated Input Current (3)		A		8,00	8,90	11,50	18,40	19,00	22,00	8,70	22,50	8,70	32,50	12,00	13,20
Indoor Units															
Air Flow rate	Turbo / Min	m^3/h		650/400	750/500	1000/650	1400/900	1400/900	2000/1400	2000/1400	2000/1400	2000/1400	2500/1600	2500/1600	2500/1600
Sound Pressure (4)	Turbo / Min	dB(A)		36/26	37/28	40/28	47/40	47/40	53/44	53/44	53/44	53/44	55/45	55/45	57/49
Useful Static Pressure	Nominale	Pa		25	25	25	25	37	37	37	37	37	50	50	50
Useful Static Pressure	Min - Max	Pa		0 - 30	0 - 30	0 - 30	0 - 75	0 -75	0 - 100	0 - 100	0 -100	0 - 100	0 - 125	0 - 125	0 - 150
Electric power supply		V-Hz		(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Outdoor Units															
Air Flow rate	Max	m^3/h		1800	1800	3200	4000	4000	5100	5100	6600	6600	6600	6600	8800
Sound Power	Max	dB(A)		62	62	64	65	65	70	70	70	70	70	70	75
Sound Pressure (4)	Max	dB(A)		52	52	54	55	55	60	60	60	60	60	60	65
Compressor	Type	-		DC-Inverter											
Electric power supply		V-Hz		(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid	inch		1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas	inch		3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant Lines	Øe Liquid	mm (inch)		6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Øe Gas	mm (inch)		9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	19,05 (3/4")
	Pipe Length Max	m		20	20	20	30	30	30	30	50	50	50	50	50
	Level difference Max	m		15	15	15	15	15	15	15	30	30	30	30	30

***LCI1400 - LCI1400T - LCI1600T:** The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with Nominal Cooling Capacity above 12kW, therefore, the labelling requirements and the additional product information are not entered.

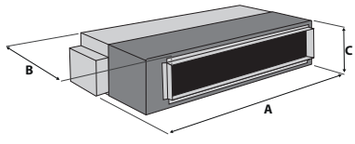
Cooling (EN-14511 and EN-14825)
Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m
Heating (EN-14511 and EN-14825)
Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m
Min = Minimum; Med = Medium; Max = Maximum

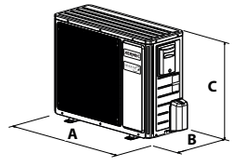
(1) Data in accordance with Delegate Regulation (EU) No.626/2011
(2) EER/COP in accordance with the Standard (EN-14511), declared only for the purpose of tax deductions in force upon realisation of this publication
(3) The Rated Input Power (Rated Input Current), is the Maximum Electric Input Power (Maximum Input Current) by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
(4) Sound Pressure measured in Anechoic Chamber at 1.5m from the front
(5) Electric Power supply: 220-240V ~ 50Hz
(6) Electric Power supply: 380-415V 3N ~ 50Hz

DIMENSIONS AND WEIGHTS

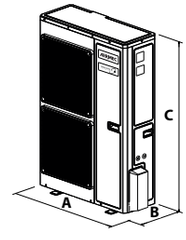
Outdoor unit			**LCI270**	**LCI350**	**LCI500**	**LCI700**	**LCI850**	**LCI1000**	**LCI1000T**	**LCI1200**	**LCI1200T**	**LCI1400**	**LCI1400T**	**LCI1600T**
Width	(A)		850	850	955	980	980	1105	1105	960	960	960	960	1085
Depth	(B)	mm	320	320	395	425	425	440	440	410	410	410	410	425
Height	(C)		540	540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight		kg	34	34	47	67	71	92	98	95	108	105	114	126

Indoor Unit			**LCI270D**	**LCI350D**	**LCI500D**	**LCI700D**	**LCI850D**	**LCI1000D**	**LCI1200D**	**LCI1400D**	**LCI1600D**
Width	(A)		925	1035	1035	1280	1280	1225	1225	1340	1340
Depth	(B)	mm	665	720	720	560	560	775	775	750	750
Height	(C)		250	265	265	270	270	290	290	350	350
Net Weight		kg	27	33	33	34	34	46	46	56	57





LCI270 - LCI350 - LCI500
LCI700 - LCI850 - LCI1000 - LCI1000T



LCI1200 - LCI1200T
LCI1400 - LCI1400T - LCI1600T

FLOOR CEILING TECHNICAL DATA

Indoor Units				LCI	270F	350F	500F	700F	850F	1000F	1000F	1200F	1200F	1400F*	1400F*	1600F*
Outdoor Units				**LCI**	**270**	**350**	**500**	**700**	**850**	**10000**	**1000T**	**1200**	**1200T**	**1400***	**1400T***	**1600T***
Cooling Capacity	Nominal		kW		2,70	3,50	5,00	7,00	8,50	10,00	10,00	11,50	11,50	14,00	14,00	16,00
	Min				0,80	0,90	1,60	2,40	2,60	3,20	3,20	3,60	3,60	6,00	6,00	6,35
	Max				3,40	3,90	5,80	8,20	9,20	11,50	11,50	12,50	12,50	14,80	14,80	16,50
Seasonal Efficiency	SEER		W/W		6,1	6,1	6,1	5,6	6,1	6,1	6,1	6,1	5,6	-	-	-
	Energy Efficiency Class (1)		-		**A^{++}**	**A^{++}**	**A^{++}**	**A^{+}**	**A^{++}**	**A^{++}**	**A^{++}**	**A^{++}**	**A^{+}**	**-**	-	-
	Annual Electricity Consumption		kWh/annum		155	201	287	438	488	574	574	660	719	-	-	-
	Pdesignc		kW		2,7	3,5	5,0	7,0	8,5	10,0	10,0	11,5	11,5	-	-	-
Total Input Power	Nominal		kW		0,84	1,09	1,55	2,18	2,67	3,20	3,12	3,90	3,90	4,80	5,00	5,75
	Min				0,20	0,26	0,55	0,85	0,85	0,80	0,80	0,60	0,60	1,40	1,40	1,20
	Max				1,28	1,40	1,75	2,50	2,70	4,60	4,60	4,70	4,70	5,60	5,60	6,90
Heating Capacity	Nominal		kW		2,90	3,80	5,60	8,00	9,20	12,00	12,00	13,50	13,50	16,00	16,00	17,00
	Min				0,80	0,90	1,40	2,40	2,40	2,90	2,90	3,90	3,90	5,20	5,20	5,50
	Max				3,70	4,10	6,80	9,00	9,90	14,50	14,50	15,50	15,50	18,00	18,00	20,00
Seasonal Efficiency (Temperate Climate)	SCOP		W/W		3,8	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	-	-	-
	Energy Efficiency Class (1)		-		**A**	**A^{+}**	**A^{+}**	**A^{+}**	**A^{+}**	**A^{+}**	**A^{+}**	**A^{+}**	**A^{+}**	**-**	-	-
	Annual Electricity Consumption		kWh/annum		1069	1050	1575	2450	2660	3640	3640	3675	3675	-	-	-
	Pdesignh		kW		2,9	3,0	4,5	7,0	7,6	10,4	10,4	10,5	10,5	-	-	-
Total Input Power	Nominal		kW		0,80	1,05	1,55	2,21	2,57	3,40	3,32	3,70	3,74	4,30	4,50	4,70
	Min				0,20	0,22	0,50	0,80	0,80	0,65	0,65	0,69	0,69	1,30	1,30	1,20
	Max				1,20	1,20	1,90	2,75	2,86	4,80	4,80	4,80	4,80	5,50	5,50	6,90
Refrigerant Gas			Type / GWP		R410A / 2088kgCO2eq											
Refrigerant Charge			kg		1,2	1,2	1,4	2,2	2,4	3,5	3,5	3,7	3,7	4,0	4,0	5,0
EER (2)			W/W		3,21	3,21	3,23	3,21	3,18	3,13	3,21	2,95	2,95	2,92	2,80	2,78
COP (2)			W/W		3,61	3,61	3,61	3,62	3,58	3,53	3,61	3,65	3,61	3,72	3,56	3,62
Rated Input Power (3)			kW		1,70	1,90	2,50	4,00	4,10	4,85	4,85	4,90	4,90	6,70	6,70	7,40
Rated Input Current (3)			A		8,00	8,90	11,50	18,40	19,00	22,50	8,70	22,70	8,70	32,50	12,00	13,20
Indoor Units																
Air Flow rate	Turbo / Min		m^3/h		600/400	700/480	1000/700	1200/820	1500/1000	1900/1200	1900/1200	1900/1200	1900/1200	2300/1500	2300/1500	2500/1800
Sound Pressure (4)	Turbo / Min		dB(A)		31/24	35/27	44/32	49/40	49/38	54/46	54/46	55/47	55/47	56/46	56/46	58/46
Electric power supply			V-Hz		(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Outdoor Units																
Air Flow rate	Max		m^3/h		1800	1800	3200	4000	4000	5100	5100	6600	6600	6600	6600	8800
Sound Power	Max		dB(A)		62	62	64	65	65	70	70	70	70	70	70	75
Sound Pressure (4)	Max		dB(A)		52	52	54	55	55	60	60	60	60	60	60	65
Compressor	Type		-		DC-Inverter											
Electric power supply			V-Hz		(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid		inch		1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas		inch		3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant Lines	Øe Liquid		mm		6,35	6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
			(inch)		(1/4")	(1/4")	(1/4")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")
	Øe Gas		mm		9,52	9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19,05
			(inch)		(3/8")	(3/8")	(1/2")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(3/4")
	Pipe Length	Max	m		20	20	20	30	30	30	30	50	50	50	50	50
	Level difference	Max	m		15	15	15	15	15	15	15	30	30	30	30	30

***LCI1400 - LCI1400T - LCI1600T:** The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with *Nominal Cooling Capacity* above 12kW, therefore, the labelling requirements and the additional product information are not entered.

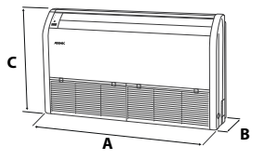
Cooling (EN-14511 and EN-14825)
Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m
Heating (EN-14511 and EN-14825)
Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m
Min = Minimum; Med = Medium; Max = Maximum

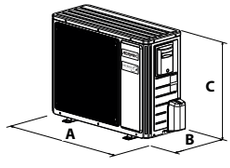
(1) Data in accordance with Delegate Regulation (EU) No.626/2011
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(3) The Rated Input Power (Rated Input Current), is the Maximum Electric Input Power (Maximum Input Current) by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
(4) Sound Pressure measured in Anechoic Chamber at 1.5m from the front
(5) Electric Power supply: 220-240V ~ 50Hz
(6) Electric Power supply: 380-415V 3N ~ 50Hz

DIMENSIONS AND WEIGHTS

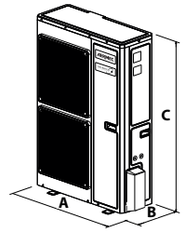
Outdoor unit			LCI270	LCI350	LCI500	LCI700	LCI850	LCI1000	LCI1000T	LCI1200	LCI1200T	LCI1400	LCI1400T	LCI1600T
Width	(A)		850	850	955	980	980	1105	1105	960	960	960	960	1085
Depth	(B)	mm	320	320	395	425	425	440	440	410	410	410	410	425
Height	(C)		540	540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight		kg	34	34	47	67	71	92	98	95	108	105	114	126

Indoor Unit			LCI270F	LCI350F	LCI500F	LCI700F	LCI850F	LCI1000F	LCI1200F	LCI1400F	LCI1600F
Width	(A)		1220	1220	1220	1220	1420	1420	1420	1700	1700
Depth	(B)	mm	225	225	225	225	245	245	245	245	245
Height	(C)		700	700	700	700	700	700	700	700	700
Net Weight		kg	38	39	39	40	48	48	50	59	59





LCI270 - LCI350 - LCI500
LCI700 - LCI850 - LCI1000 - LCI1000T



LCI1200 - LCI1200T
LCI1400 - LCI1400T - LCI1600T

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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Code: SLCIUY.06/1701

MVA

Reversible Multisplit Heat Pumps

Cooling Capacity from 22,4kW to 28,0kW
Heating Capacity from 24,0kW to 30,0kW

Ducted Type Monosplit High Useful Static Head

Indoor Unit
MVA



MVA2240DH - 2800DH

WIRED PANEL (SOFT TOUCH) AND REMOTE CONTROL STANDARD ON ALL THE INDOOR UNITS



WLRC



WRC

CONTROL SYSTEM



WRC
(standard on all the indoor units)



WRC1



MODBUSGW



BACNETGW



USBDC

Outdoor Unit
MVAS (STANDARD)

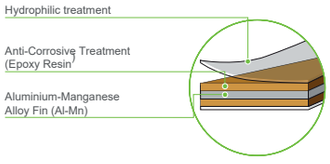


MVAS2242T - 2802T

Outdoor units equipped with special Heat Transfer Coils with Anti-Corrosion Protection Golden Fin.

Anti-Corrosion Protection Golden Fin

The aluminium-manganese (Al-Mn) fins of the coils are coated with a special layer of Epoxy Resin, which gives it a typical golden colour, and a further hydrophilic layer.



Features

Outdoor Units:

- **MVAS (STANDARD)**

  Outdoor Units available in 2 sizes.

Indoor Unit:

- **DUCT**
  MVA_DH: High Hydraulic Head Duct for ducted horizontal ceiling mounting.

General Features:

- Refrigerant Gas R410A.
- Indoor Units fitted with electronic expansion valve on board.
- Wired panel (Soft Touch) WRC, for wall mounting, standard on all Indoor Units.
- WLRC infrared remote control, standard on all Indoor Units.
- DC Inverter compressors were selected to maximise efficiencies, reduce consumption, minimise pickup power input, to have efficient control of the oil return and accurate control of the room temperature and humidity.
- Outdoor units fitted with fans with continuous variable speed inverter motor.
- Microprocessor control.
- Extremely quiet operation.
- Auto-Restart function active by default, can be deactivated.
- Standard condensate control device; allows cooling operation with low outside temperatures.
- Serial communication in CANBUS protocol.
- Easy to install thanks to the non-polarised serial connections and the self-addressing features.

Accessories

- **WRC**: wired Soft-Touch panel this Accessory is supplied as standard with all Indoor Units; it is also possible to purchase an additional WRC Wired Panel to control a single Indoor Unit or set of Indoor Units (up to a maximum of 16), with the same settings from two separate locations.
- **WRC1**: simplified control wired panel for Indoaor Unit with built-in External Contact. This panel is particularly suitable for hotel applications. It can control a single Indoor Unit or a set of Indoor Units (up to a maximum of 16) with the same settings from two separate locations.
- **MODBUSGW**: this accessory allows you to manage up to 16 MVA systems (with a maximum total of 128 indoor units), making a serial Modbus available for supervision with an external BMS.
- **BACNETGW**: this accessory allows you to manage up to 16 MVA systems (with a maximum total of 255 indoor units), making a serial Modbus available for supervision with an external BMS.
- **USBDC**: this kit includes a CANBUS to ModBUS converter and the VRF Debugger software; created to meet the needs of after sales service or authorised technicians who must carry out control and debugging procedures on the MVA range.

Outdoor Units Technical Data

Outdoor Units		MVAS	2242T	2802T
Cooling Capacity (nominal)		kW	22,4	28,0
Total Power Input (nominal)		kW	6,12	7,78
Input Current (nominal)		A	10,90	13,90
EER		W/W	3,66	3,60
Heating Capacity (nominal)		kW	24,0	30,0
Input power (nominal)		kW	4,90	6,12
Input Current (nominal)		A	8,80	10,90
COP		W/W	4,90	4,90
Nominal input Power (1)		kW	9,6	12,5
Refrigerant		Tipo / GWP	R410A / 2088kgCO2eq	
Refrigeratn Charge		kg	5,5	7,1
Compressors		DC Inverter	1	1
Nominal Air Flow Rate		m^3/h	8000	11000
Maximum Total Line Length		m	300	300
Fans		n.	2	2
Sound Pressure (2)		dB (A)	63	65
Refrigerant Connections	Ø liquid	mm (inch)	19,05 (3/4")	22,2 (7/8")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")
	Type		A saldare	A saldare
Power Supply			380-415V 3N ~ 50Hz	

Indoor Units Technical Data

Indoor Units		MVA	2240DH	2800DH
Cooling Capacity		kW	22,40	28,00
Heating Capacity		kW	25,00	31,00
Nominal input Power (1)		W	800	900
Nominal Air Flow Rate		m^3/h	4000	4400
Nominal useful static head (2)		Pa	150	150
Sound Pressure (Min)		dB (A)	-	-
Sound Pressure (Max)		dB (A)	54	55
Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	19,05(3/4")	22,2 (7/8")
Power Supply			220-240V ~ 50Hz	

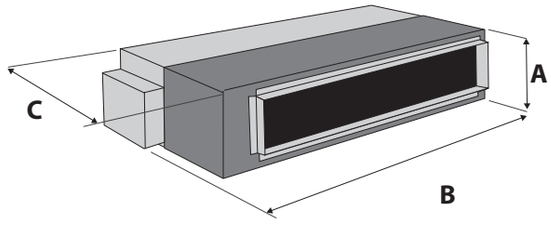
Cooling (EN-14511)
Room Air Temperature 27°C b.s. / 19 b.u.; Outside Air Temperature35°C
Heating (EN-14511)
Room Air Temperature 20°C b.s.; Outside Air Temperature 7°C b.s. / 6°C b.u.

(1) The Nominal Input Power is the Maximum Input Electrical Power of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(2) Sound Pressure measured in Semi-Anechoic Chamber at 1m from the front.

All internal units feature welded connections.

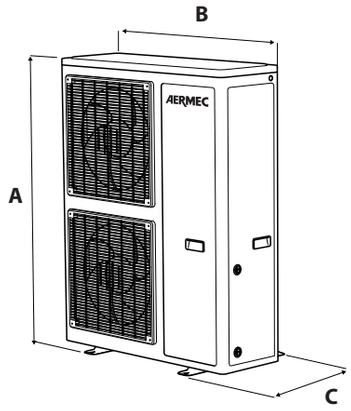
Dimensions and Weight

MVA_DH



MVA_DH	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA2240DH	327	1353	632	115
MVA2800DH	402	1563	706	115

MVAS



MVAS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAS2242T	1430	940	320	133
MVAS2802T	1615	940	460	166

SPLIT

Cod.: SMVASDHUY.05 / 1712

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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MKM

MULTISPLIT

Pompe di Calore Reversibili Split System

Potenza Frigorifera da 4,1kW a 12,1kW
Potenza Termica da 4,4kW a 13,0kW

A++ Cooling
A+ Heating (Average)



Necessary App for use the WIFIKIT accessory

UNIVERSAL indoor units*

SK_W



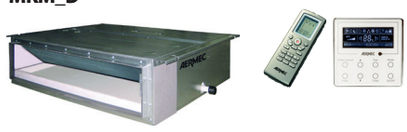
SE_W



* To find out which models are Universal, see the table in the "Features" section of the following Product Data Sheet.

MKM indoor units

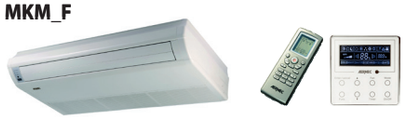
MKM_D



MKM_C / MKM_CS



MKM_F



CK_FS



Standard WiFi module for CK_FS

Outdoor Units



MKM420 - MKM520
MKM630 - MKM730
MKM840



MKM1040 - MKM1250

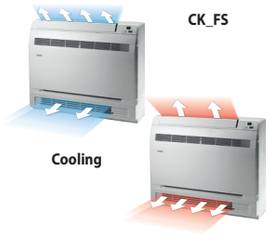




Extra Horizontal Fin (only for SK_W Indoor Units)

1. Active in Heating Mode to improve air distribution and to avoid stratification
2. Retractable in Cooling Mode

DUAL AIR DELIVERY (DEFAULT)



SINGLE AIR DELIVERY



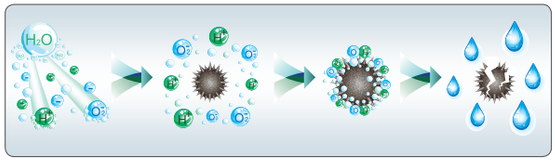
INTAKE



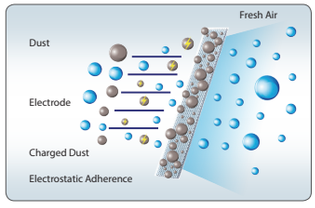
CONTROL SYSTEMS



WRCA
Wired Panel
(Accessory only for the SK_W models)



Air Ionizer (*Cold Plasma Generator*): this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.
(Only for SK_W and CK_FS Indoor Units).



Operating principals of the **Electrostatic dust filter** (electrically powered).
(Only for SK_W Indoor Units).

Features

Outdoor Units:

- **DUALSPLIT**
- Outdoor Units MKM420 and MKM520 can be combined with 1 or 2 Indoor Units.
- **TRIALSPLIT**
- Outdoor Units MKM630 and MKM730 can be combined with 2 or 3 Indoor Units.
- **QUADRISPLIT**
- Outdoor Units MKM840 and MKM1040 can be combined with 2, 3 or 4 Indoor Units.
- **PENTASPLIT**
- Outdoor Unit MKM1250 can be combined with 2, 3, 4 or 5 Indoor Units.

- Outdoor Units (MKM420, MKM520, MKM630, MKM730 and MKM840) fitted with **Base Electric Resistor** to prevent any ice formation and to favour disposal of condensation during heating operation.
- Outdoor Units with *DC Inverter Rotary* compressor.
- Outdoor Units with *DC Inverter* fan.
- Extremely quiet operation.
- Outdoor Units fitted with *Electronic Expansion Valve*.

Indoor Units:

- **SK_W**
- **WALL (Wall Installation)**
- SK200W, SK260W, SK360W, SK500W and SK700W
- **Universal Indoor Units**: some Indoor Units can be combined with both Multi-Split Outdoor Units from the MKM range and Mono-Split Outdoor Units from the SK range:

SK	200W	260W	360W	500W	700W
Indoor Units Universal		•	•	•	•

- Indoor Unit fitted with both a double Horizontal Fin and Vertical Fins, all motorised for optimum control of the air flow in the two directions.
- The Indoor Unit fan has 7 speeds, 5 of which can be selected using the "FAN" button and 2 that can be set using a special button. "QUIET" for extremely quiet operation; "TURBO" to reach the desired temperature in the least amount of time possible.
- "AUTO" function for continuous variable speed.
- "Anti-freeze" function that allows a minimum temperature of 8°C to be maintained in the environment during the winter period.
- "I FEEL" function: allows activation of the room temperature sensor inside the remote control for improved comfort.
- Easy to remove and clean air filters.
- Electrostatic dust filter (electrically powered).
- Air Ionizer (*Cold Plasma Generator*).
- Infrared remote handset with backlit liquid crystal display for full control of all appliance functions.
- Refrigerant Gas Line, provided with Indoor Units SK360W and SK500W only for combination with MKM Outdoor Units.
- Extremely quiet operation.

- **SE_W**
- **WALL (Wall Installation)**
- SE200W, SE260W, SE360W, SE500W and SE700W.
- **Universal Indoor Units**: some Indoor Units can be combined with both Multi-Split Outdoor Units from the MKM range and Mono-Split Outdoor Units from the SE range:

SE	200W	260W	360W	500W	700W
Indoor Units Universal				•	•

- Indoor Unit fitted with a motorised Horizontal Fin and Vertical Fins, adjustable for optimum control of the air flow in the two directions.
- The Indoor Unit fan has 4 speeds, 3 of which can be selected using the "FAN" button and 1 that can be set using the special "TURBO" button to reach the desired temperature in the least amount of time possible.
- "AUTO" function for continuous variable speed.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM_D**
- **DUCTED (Horizontal Installation)**
- MKM25D, MKM35D, MKM50D, MKM60D and MKM70D.
- Max Useful Static Head 10Pa.
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM_CS**
- **CASSETTE (Suspended Ceiling Installation)**
- 600 x 600
- MKM35CS and MKM50CS **(must be combined with accessory MKMGL41S)**.
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM_C**
- **CASSETTE (Suspended Ceiling Installation)**
- 840 x 840
- MKM35C, MKM50C and MKM70C **(must be combined with accessory MKMGL40)**.
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM_F**
- **FLOOR CEILING (Floor or Ceiling Installation)**
- MKM25F, MKM35F, MKM50F and MKM70F.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **CK_FS**
- **CONSOLE (Vertical Installation)**
- CK261FS, CK361FS, CK501FS
- Indoor Unit with *DC Inverter* Radial Fan
- The Indoor Unit fan has 7 speeds, 5 of which can be selected using the "FAN" button and 2 that can be set using a special button. "QUIET" for extremely quiet operation; "TURBO" to reach the desired temperature in the least amount of time possible.
- "AUTO" function for continuous variable speed.
- "Anti-freeze" function that allows a minimum temperature of 8°C to be maintained in the environment during the winter period.
- "I FEEL" function: allows activation of the room temperature sensor inside the remote control for improved comfort.
- Indoor Unit fitted with **two delivery vents** for optimum control of the air flow and greater ambient comfort. One delivery vent is positioned in the upper part and one is positioned in the lower part.
  Using a special *microswitch* located under the front panel, you can set the upper delivery only.
- Motorized horizontal and vertical fins for optimum air flow control.
- Air filter easy to remove and clean.
- Air Ionizer (*Cold Plasma Generator*).
- Infrared remote handset with backlit liquid crystal display for full control of all appliance functions.
- Extremely quiet operation.
- **Indoor Unit with Standard WiFi module**
  Using this module and the special App for iOS and Android devices (freely available on Apple Store and Google play), the system can be controlled from a distance, directly via your smartphone or tablet. The remote control can be done by Local Wi-Fi(Short Distance Control), otherwise through Cloud System with a Wireless Router connected to the internet(Long Distance Control).
  The following table shows the compatibility between the Internal Units and the models WIFIKIT available.

General Features:

- Operating mode: Cooling, Heating, Dehumidification, Automatic and Fan only.
- Microprocessor control.
- Auxiliary emergency command (AUTO button on the Indoor Unit).
- Timer for programming switch-on and/or switch-off.
- Night-time Comfort Program.
- Auto-restart Function.
- Self-diagnostics function.
- Refrigerant lines with flared ends.
- Easy installation and maintenance.
- Systems with *multi-line* refrigerant connections, where every Indoor Unit is connected directly to the Outdoor Unit via dedicated refrigerant lines.
- Extremely quiet operation.
- **Low Cooling Function**:
  Cooling operation with Outdoor Temperatures up to:

MKM	420	520	630	730	840	1040	1250
-15°C	•	•	•	•	•		
-5°C						•	•

- **Low Heating Function**:
  Heating operation with Outside Temperatures up to:

MKM	420	520	630	730	840	1040	1250
-20°C	•	•	•	•	•		
-15°C						•	•

Indoor Unit Features (standard)

Indoor Unit Features (standard)	SK_W	SE_W	MKM_D	MKM_CS	MKM_C	MKM_F	CK_FS
Infra-red remote control	•	•	•	•	•	•	•
Wired *Soft-Touch* panel			•	•	•	•	
Electrostatic dust filter	•						
Air Ionizer (*Cold Plasma Generator*)	•						•
Condensate Discharge Pump			•	•	•		

Accessories

ACCESSORIES FOR MKM_C / MKM_CS

- **MKMGL41S: (600x600)**
  Air delivery and recovery grille for indoor cassette-type units. **Accessory required for MKM_CS**.

- **MKMGL40: (840x840)**
  Air delivery and recovery grille for indoor cassette-type units. **Accessory required for MKM_C**.

ACCESSORIES FOR SK_W

- **WIFIKIT**: *Plug & Play* module to be installed in the Indoor Unit for *Wi-Fi* control. Using this Accessory and the special *App* for *iOS* and *Android* devices, available free from *Apple Store* and *Google play*, the system can be controlled remotely directly from your Smartphone or Tablet. Remote control can be Direct (*Direct Wi-Fi*) or via *Cloud*, using a *Wireless Router* connected to the *Internet*.

- **WRCA:** Wired Panel with liquid crystal display and *Soft-Touch* buttons. Using this Accessory, in addition to the traditional functions of the system, you can also control a weekly timer with a maximum of 8 daily time slots.

The two Accessories WRCA and WIFIKIT are compatible with one another and can therefore be connected to the same SK range Indoor Unit simultaneously.

Available Indoor Unit Models

Rated Cooling Capacity kBtu/h	Indoor Unit Models						
7	SK200W	SE200W	-	-	-	-	-
9	SK260W*	SE260W	MKM25D	-	-	MKM25F	CK261FS
12	SK360W*	SE360W	MKM35D	MKM35CS	MKM35C	MKM35F	CK361FS
18	SK500W*	SE500W*	MKM50D	MKM50CS	MKM50C	MKM50F	CK501FS
21	-	-	MKM60D	-	-	-	-
24	SK700W*	SE700W*	MKM70D	-	MKM70C	MKM70F	-

***Universal Indoor Units**: Indoor units that can be combined both with MKM Range Multi-Split and SK or SE Range Mono-Split Outdoor Units.

Allowed Combinations of Indoor Units

TRIALSPLIT - QUADRISPLIT - PENTASPLIT: IT IS mandatory to install at least 2 indoor units for correct system operation.
For further information, please refer to the technical documentation available at www.aermec.com

MKM420 - MKM520 - MKM630 - MKM730 - MKM840

MKM420 (14kBtu/h)	MKM520 (18kBtu/h)	MKM630 (21kBtu/h)		MKM730 (24kBtu/h)		MKM840 (28kBtu/h)		
2 Units	2 Units	2 Units	3 Units	2 Units	3 Units	2 Units	3 Units	4 Units
7	7	7 + 7	**7 + 7 + 7**	7 + 7	7 + 7 + 7	7 + 7	7 + 7 + 7	**7 + 7 + 7 + 7**
9	9	7 + 9	7 + 7+ 9	7 + 9	7 + 7 + 9	7 + 9	7 + 7 + 9	7 + 7 + 7 + 9
12	12	7 + 12	7 + 7 + 12	7 + 12	**7 + 7 + 12**	7 + 12	7 + 7 + 12	7 + 7 + 7 + 12
7 + 7	7 + 7	7 + 18	7 + 9 + 9	7 + 18	7 + 7 + 18	7 + 18	7 + 7 + 18	7 + 7 + 7 + 18
7 + 9	7 + 9	9 + 9	7 + 9 + 12	9 + 9	7 + 9 + 9	9 + 9	7 + 9 + 9	7 + 7 + 9 + 9
7 + 12	7 + 12	9 + 12	7 + 12 + 12	9 + 12	7 + 9 + 12	9 + 12	7 + 9 + 12	7 + 7 + 9 + 12
9 + 9	7 + 18	9 + 18	9 + 9 + 9	9 + 18	7 + 9 + 18	9 + 18	7 + 9 + 18	7 + 7 + 9 + 18
9 + 12	**9 + 9**	12 + 12	9 + 9 + 12	12 + 12	7 + 12 + 12	12 + 12	7 + 12 + 12	7 + 7 + 12 + 12
	9 + 12	12 + 18	9 + 12 + 12	12 + 18	9 + 9 + 9	12 + 18	7 + 12 + 18	7 + 9 + 9 + 9
	12 + 12			18 + 18	9 + 9 + 12	18 + 18	9 + 9 + 9	7 + 9 + 9 + 12
					9 + 9 + 18		9 + 9 + 12	7 + 9 + 12 + 12
					9 + 12 + 12		9 + 9 + 18	9 + 9 + 9 + 9
					12 + 12 + 12		9 + 12 + 12	9 + 9 + 9 + 12
							9 + 12 + 18	9 + 9 + 12 + 12
							12 + 12 + 12	

MKM1040

MKM1040 (36kBtu/h) up to 4 connectible Indoor Units.
Total Rated Cooling Capacity connected to the Outdoor Unit between 50% and 150% of its rated capacity (36kBtu/h).

MKM1250

MKM1250 (42kBtu/h) up to 5 connectible Indoor Units.
Total Rated Cooling Capacity connectible to the Outdoor Unit between 50% and 150% of its rated capacity (42kBtu/h).

Outdoor Units Technical Data

Outdoor Units				MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM1250*
Cooling Capacity	Rated (Min-Max)		kW	4,10 (2,10-4,40)	5,20 (2,14-5,80)	6,10 (2,20-7,33)	7,10 (2,29-8,50)	8,00 (2,29-10,26)	10,50 (2,10-11,00)	12,10 (2,10-13,60)
Input Power	Rated (Min-Max)		kW	1,20 (0,55-1,40)	1,45 (0,55-1,56)	1,91 (0,95-2,39)	2,18 (1,10-2,87)	2,54 (1,00-3,58)	3,50 (1,30-4,60)	3,76 (1,30-5,02)
Input Current			A	5,32	6,43	8.47	9.67	11.27	15.42	17.21
Seasonal Efficiency	Energy Efficiency Class	(1)		A++	A++	A++	A++	A++	A	-
	SEER			6,1	6,3	6,1	6,1	6,1	5,5	-
	Pdesignc		kW	4,1	5,2	6,1	7,1	8,0	10.5	-
	Annual Power Consumption		kWh/annum	235	288	350	407	459	668	-
Heating Capacity	Rated (Min-Max)		kW	4,40 (2,49-5,42)	5,40 (2,58-5,92)	6,50 (3,61-8,50)	8,50 (3,66-8,79)	9,30 (3,66-10,26)	12,00 (2,60-13,00)	13,00 (2,60-14,00)
Input Power	Rated (Min-Max)		kW	1,18 (0,75-1,78)	1,45 (0,78-1,78)	1,73 (0,78-2,87)	2,28 (0,98-2,87)	2,49 (0,88-3,58)	3,75 (1,30-4,14)	3,45 (1,30-5,02)
Input Current			A	5.24	6,43	7,68	10.12	11,05	15.20	15.79
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A+	A+	A+	A+	A+	A	-
	SCOP			4,0	4,0	4,0	4,0	4,0	3,8	-
	Pdesignh		kW	3,8	5,0	5,8	7,0	7,0	10.5	-
	Annual Power Consumption		kWh/annum	1330	1750	2030	2450	2450	3876	-
Refrigerant Gas			Type / GWP	R410A / 2088kgCO2eq						
Refrigerant Charge			kg	1,4	1,6	2,2	2,2	2,4	4,3	4,8
EER		(2)	W/W	3.42	3.59	3.19	3.26	3.15	3,00	3.22
COP		(2)	W/W	3.73	3.72	3.76	3.73	3.73	3.20	3.77
Nominal Input Power		(3)	kW	1.78	1.78	2.87	2.87	3.58	4.88	5.02
Nominal Input Current		(3)	A	7,90	7,90	12.73	12.73	15.88	21,65	22.97
Outdoor Units										
Air flow rate	Max		m^3/h	2600	3200	3200	4000	4000	5200	5200
Sound Power	Max		dB(A)	62	62	65	65	65	67	67
Sound Pressure	Max	(4)	dB(A)	55	56	56	58	58	57	57
Compressor			Type	Rotary DC Inverter						

Chiller Lines	Total Line Length	Max	m	20	20	60	60	70	70	80
	Single Line Length	Max	m	10	10	20	20	20	20	25
	Indoor - Outdoor Height Difference	Max	m	5	5	10	10	10	7.5	7.5
	Indoor - Outdoor Height Difference	Max	m	5	5	10	10	10	15	15
Power Supply			-	220-240V ~ 50Hz						

All of the technical data refers to the respective reference combinations of Indoor Units.

* MKM1250 - The European Directive (EU) No 626/2011 does not apply to Air Conditioners with Rated Cooling Capacity greater than 12kW, therefore the labelling and supplementary production information requirements are not inserted.

Cooling (EN-14511 and EN-14825)
Ambient Air Temperature 27°C D.B. / °C W.B.; Outside Air Temperature 35°C; Max speed; Length of Refrigerant Lines 5m
Heating (EN-14511 and EN-14825)
Ambient Air Temperature 20°C D.B.; Outside Air Temperature 7°C D.B. / 6°C W.B.; Max speed; Length of Refrigerant Lines 5m
Min = Minimum; **Med =** Medium; **Max =** Maximum

(1) Data in accordance with Delegated Regulation (EU) No. 626/2011
(2) EER/COP in accordance with the Standard (EN-14511), only declared for the purposes of the tax deductions in force at the time of this publication
(3) The *Nominal Input Power* (*Nominal Input Current*) is the *Maximum Input Electrical Power* (*Maximum Input Current*) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
(4) *Sound Pressure* measured in a semi anechoic chamber at 1.5 m from the unit

Adapters provided with the MKM Outdoor Unit

Models	MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM 1250	Connections mm (inch)		
								Outdoor Unit		Indoor Unit
Quantity	-	1	1	2	2	-	-	9.52 (3/8")	→	12.7 (1/2")
	-	-	-	-	-	1	2	6.35 (1/4")	→	9.52 (3/8")
	-	-	-	-	-	1	2	12.7 (1/2")	→	9.52 (3/8")
	-	-	-	-	-	1	2	12.7 (1/2")	→	15.9 (5/8")
	-	-	-	-	-	1	1	9.52 (3/8")	→	6.35 (1/4")
	-	-	-	-	-	1	1	15.9 (5/8")	→	9.52 (3/8")
	-	-	-	-	-	2	1	9.52 (3/8")	→	12.7 (1/2")
	-	-	-	-	-	-	1	15.9 (5/8")	→	12.7 (1/2")

Adapters provided with the SK_W Indoor Unit

							Indoor Unit		Outdoor Unit
Models		SK200W	SK260W	SK360W	SK500W	SK700W	Connections mm (inch)		
Quantity		-	-	1	-	-	12.7 (1/2")	→	9.52 (3/8")
		-	-	-	1	-	15.9 (5/8")	→	12.7 (1/2")

For further information, consult the Technical Documentation available at www.aermec.com

Indoor Units Technical Data

WALL (Wall Installation)

SK_W Indoor Units				SK200W	SK260W	SK360W	SK500W	SK700W
Cooling Capacity		Nominal	kW	2.10	2.60	3,50	5.30	7,00
Heating Capacity		Nominal	kW	2.60	3.20	4,00	5.40	7.30
Nominal Input Power	(5)		W	40	40	40	60	75
Air flow rate		Min / Max	m^3/h	350 / 650	350 / 650	350 / 750	480 / 950	780 / 1200
Moisture Removed			l/h	1.0	1.0	1.0	2.0	2,5
Sound Power		Min / Max	dB(A)	38 / 55	38 / 55	38 / 55	46 / 60	49 / 65
Sound Pressure		Min / Max	dB(A)	26 / 43	26 / 43	26 / 43	34 / 46	37 / 51

WALL (Wall Installation)

SE_W Indoor Units				SE200W	SE260W	SE360W	SE500W	SE700W
Cooling Capacity		Nominal	kW	2.10	2.60	3,50	5.28	6.45
Heating Capacity		Nominal	kW	2.60	3,00	4,00	5.80	7,00
Nominal Input Power	(5)		W	55	55	55	55	68
Air flow rate		Min / Max	m^3/h	350 / 580	300 / 600	300 / 600	550 / 850	550 / 1000
Moisture Removed			l/h	0,6	0,8	1,4	1.8	2.0
Sound Power		Min / Max	dB(A)	38 / 53	48 / 42	42 / 54	45 / 58	49 / 63
Sound Pressure		Min / Max	dB(A)	28 / 41	40 / 54	30 / 42	33 / 45	39 / 51

Ducted (Horizontal Installation)

MKM_D Indoor Units				MKM25D	MKM35D	MKM50D	MKM60D	MKM70D
Cooling Capacity		Nominal	kW	2,50	3,50	5,00	6,00	7.10
Heating Capacity		Nominal	kW	2,80	3.85	5.50	6,60	8.00
Nominal Input Power	(5)		W	75	65	80	110	110
Air flow rate		Min / Max	m^3/h	450	500	700	1000	1000
Moisture Removed			l/h	0,8	1,4	1.8	2.0	2,5
Sound Power		Min / Max	dB(A)	41 / 47	42 / 49	43 / 50	44 / 52	44 / 52
Sound Pressure		Min / Max	dB(A)	31 / 37	32 / 39	33 / 41	34 / 42	34 / 42

Cassette (Suspended Ceiling Installation)

MKM_CS Indoor Units (600x600)				MKM35CS	MKM50CS
Cooling Capacity		Nominal	kW	3,50	4.50
Heating Capacity		Nominal	kW	4,00	5,00
Nominal Input Power	(5)		W	50	50
Air flow rate		Min / Max	m^3/h	450 / 600	450 / 600
Moisture Removed			l/h	1,4	1.8
Sound Power		Min / Max	dB(A)	52 / 56	52 / 56
Sound Pressure		Min / Max	dB(A)	42 / 46	42 / 46

Cassette (Suspended Ceiling Installation)

MKM_C Indoor Units (840x840)				MKM35C	MKM50C	MKM70C
Cooling Capacity		Nominal	kW	3,50	5,00	7.10
Heating Capacity		Nominal	kW	3.85	5.50	8.00
Nominal Input Power	(5)		W	70	70	100
Air flow rate		Min / Max	m^3/h	335 / 400	570 / 680	850 / 1180
Moisture Removed			l/h	1,4	1.8	2,5
Sound Power		Min / Max	dB(A)	43 / 47	43 / 47	45 / 49
Sound Pressure		Min / Max	dB(A)	33 / 37	33 / 37	35 / 39

Floor Ceiling (Wall or Ceiling Installation)

MKM_F Indoor Units				MKM25F	MKM35F	MKM50F	MKM70F
Cooling Capacity		Nominal	kW	2,50	3,50	5,00	7.10
Heating Capacity		Nominal	kW	2,80	3.85	5.50	8.00
Nominal Input Power	(5)		W	55	55	110	110
Air flow rate		Min / Max	m^3/h	450 / 650	450 / 650	500 / 950	700 / 1250
Moisture Removed			l/h	0,8	1,4	1.8	2,5
Sound Power		Min / Max	dB(A)	46 / 50	46 / 50	50 / 55	54 / 58
Sound Pressure		Min / Max	dB(A)	36 / 40	36 / 40	40 / 45	44 / 48

Console (Vertical Installation)

MKM_FS Indoor Units				CK261FS	CK361FS	CK501FS
Cooling Capacity		Nominal	kW	2,7	3,5	5,2
Heating Capacity		Nominal	kW	2,8	3,75	5,33
Nominal Input Power	(5)		W	1,4	1,6	2,5
Air flow rate		Min / Max	m^3/h	250/500	280/600	320/700
Moisture Removed			l/h	0,80	1,20	1,80
Sound Power		Min / Max	dB(A)	34/52	35/52	41/57
Sound Pressure		Min / Max	dB(A)	23/40	25/42	31/47

(5) The *Nominal Input Power* (*Nominal Input Current*) is the *Maximum Input Electrical Power* (*Maximum Input Current*) of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40

Chiller Connections

Indoor Unit Chiller Connections

Rated Cooling Capacity kBtu/h		7	9	12	18	21	24
Models		SK200W	SK260W	SK360W	SK500W	-	SK700W
Gas Connection	inch(mm)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7) [1]	5/8"(15,9) [1]	-	5/8"(15,9)
Liquid Connection	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	1/4"(6,35)
Models		SE200W	SE260W	SE360W	SE500W	-	SE700W
Gas Connection	inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	1/4"(6,35)
Models		-	MKM25D	MKM35D	MKM50D	MKM60D	MKM70D
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	5/8"(15,9)	5/8"(15,9)
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	3/8"(9,52)	3/8"(9,52)
Models		-	-	MKM35CS	MKM50CS	-	-
Gas Connection	inch(mm)	-	-	3/8"(9,52)	1/2"(12,7)	-	-
Liquid Connection	inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	-	-
Models		-	-	MKM35C	MKM50C	-	MKM70C
Gas Connection	inch(mm)	-	-	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	-	3/8"(9,52)
Models		-	MKM25F	MKM35F	MKM50F	-	MKM70F
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	3/8"(9,52)
Models		-	CK261FS	CK361FS	CK501FS	-	-
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	-
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	-

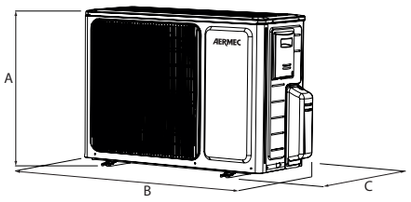
[1] Use the Adapter provided with the Indoor Unit.

Outdoor Unit Chiller Connections

Models	Unit		MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM 1250
Gas Connection	A	inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	15,9(5/8")	15,9(5/8")
	B	inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	12,7(1/2")	12,7(1/2")
	C	inch(mm)	-	-	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	9,52(3/8")	12,7(1/2")
	D	inch(mm)	-	-	-	-	3/8"(9,52)	9,52(3/8")	9,52(3/8")
	E	inch(mm)	-	-	-	-	-	-	9,52(3/8")
Liquid Connection	A	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	9,52(3/8")	9,52(3/8")
	B	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	C	inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	D	inch(mm)	-	-	-	-	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	E	inch(mm)	-	-	-	-	-	-	6,35(1/4")

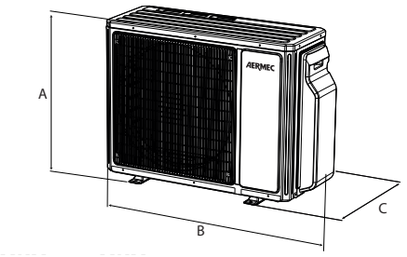
Outdoor Unit Weights and Dimensions

MKM420



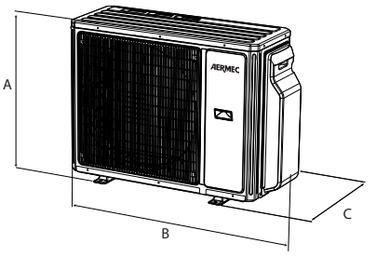
OUTDOOR UNIT				
	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM420	596	903	378	43

MKM520 - MKM630



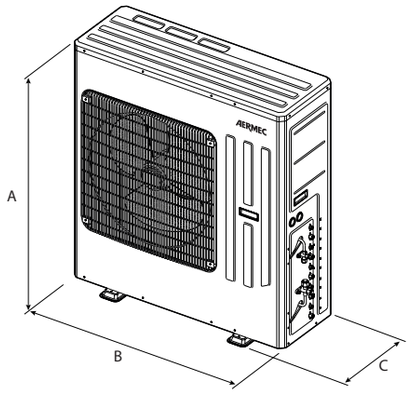
OUTDOOR UNIT				
	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM520	700	963	396	51
MKM630	700	963	396	62

MKM730 - MKM840



OUTDOOR UNIT				
	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM730	790	1001	427	68
MKM840	790	1001	427	69

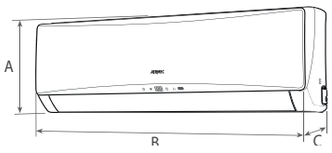
MKM1040 - MKM1250



OUTDOOR UNIT				
	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM1040	1103	1087	440	94
MKM1250	1103	1087	440	95

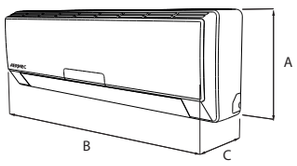
Indoor Unit Weights and Dimensions

SK_W



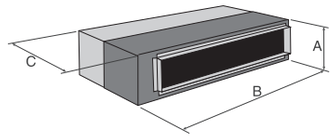
INDOOR UNIT				
SK_W	**A (mm)**	**B (mm)**	**C (mm)**	**Weight Net (kg)**
SK200W	292	866	209	11
SK260W	292	866	209	11
SK360W	292	866	209	11
SK500W	319	1018	230	14
SK700W	326	1178	264	17

SE_W



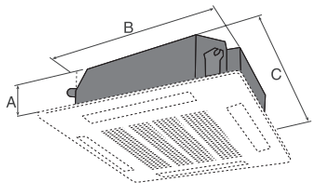
INDOOR UNIT				
SE_W	**A (mm)**	**B (mm)**	**C (mm)**	**Weight Net (kg)**
SE200W	275	845	180	9
SE260W	275	845	180	9
SE360W	275	845	180	9
SE500W	298	940	200	12
SE700W	315	1007	219	15

MKM_D

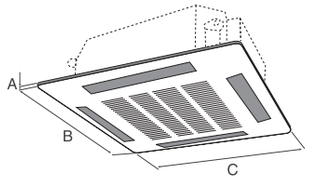


INDOOR UNIT				
	A (mm)	**B (mm)**	**C (mm)**	**Weight Net (kg)**
MKM_D				
MKM25D	200	782	635	22
MKM35D	200	782	635	23
MKM50D	200	982	635	27
MKM60D	200	1182	635	31
MKM70D	200	1182	635	31

MKM_CS - MKM_C

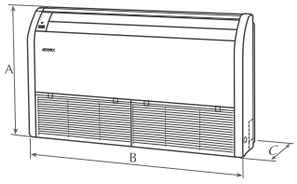


MKMGL40S - MKMGL40



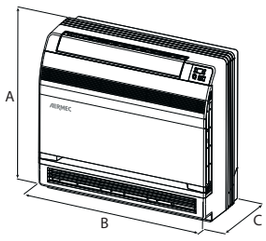
INDOOR UNIT				
MKM_CS MKM_C	**A (mm)**	**B (mm)**	**C (mm)**	**Weight Net (kg)**
MKM35CS	230	570	570	18
MKM50CS	230	570	570	18
MKMGL41S*	50	650	650	5
MKM35C	190	840	840	25
MKM50C	190	840	840	25
MKM70C	240	840	840	30
MKMGL40*	60	950	950	5
*** Mandatory Accessory**				

MKM_F



INDOOR UNIT				
	A (mm)	**B (mm)**	**C (mm)**	**Weight Net (kg)**
MKM_F				
MKM25F	700	1220	225	40
MKM35F	700	1220	225	40
MKM50F	700	1220	225	40
MKM70F	700	1220	225	45

CK_FS



INDOOR UNIT				
	A (mm)	**B (mm)**	**C (mm)**	**Weight Net (kg)**
CK_FS				
CK261FS	600	700	215	15,50
CK361FS	600	700	215	15,50
CK501FS	600	700	215	15,50

Cod.: SMKMUY.11/1712

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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www.aermec.com

VRF SYSTEM

The VRFs are the direct expansion systems, with variable refrigerant flow.
Unlike the Multisplits, which are characterised by a set flow of refrigerant, these systems allow users to adjust the amount of refrigerant in circulation, according to the actual load required by the indoor units in use.
They range of 10kW to 180kW thanks to their modular configuration, and are available in a heat pump version with heat recovery and domestic hot water production.
These systems guarantee excellent energy efficiency, avoiding wasting energy pointlessly, and are amazingly quiet during operation.

VRF SYSTEM

		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
MVA	Reversible heat pump	-	12,0-180,0	14,0-200,0	530

MVA

Multisplit reversible Heat Pumps
Variable refrigerant flow system (VRF)
Cooling Capacity from 12,1kW to 246kW
Heating Capacity from 14,0kW to 276kW
For systems with 2 and 3 pipes

OUTDOOR UNITS

MVAS



MVAS1201S
MVAS1401S
MVAS1601S
MVAS1201T
MVAS1401T
MVAS1601T

MVAS2242T
MVAS2802T
MVAS3351T



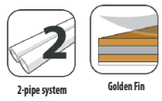
MVAM



MVAM2241T
MVAM2801T

MVAM3351T
MVAM4001T

MVAM4501T
MVAM5041T
MVAM5601T
MVAM6151T

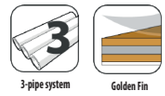


MVAMHR



MVAMHR2240T
MVAMHR2800T

MVAMHR3350T
MVAMHR4000T
MVAMHR4500T





Exchange module MEB *(Required Accessory)*

INDOOR UNITS



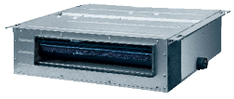
MVA_W



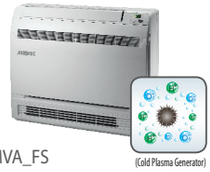
MVA_WS



MVA_F



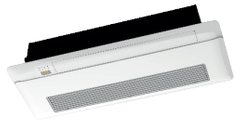
MVA_D - MVA_DH



MVA_FS



MVA_CS - MVA_C - MVA_CB



MVA_C1



MVA_V



WLRC



WRC

Wired panel (Soft Touch) and Remote Control as Standard on all Indoor Units



Golden Fin - Anti-Corrosion Protection

Outdoor units equipped with special Heat Transfer Coils with Anti-Corrosion Protection Golden Fin.
The aluminium-manganese (Al-Mn) fins of the coils are coated with a special layer of Epoxy Resin, which gives it a typical golden colour, and a further hydrophilic layer.



Cold Plasma Generator - Air Ionizer

This device is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.
Available only for MVA_FS Indoor Unit



Base electric heater

To avoid possible formation of ice and facilitate disposal of condensate during heating operation.

STANDARD ON MVAS OUTDOOR UNITS
MVAS1201S - MVAS1401S - MVAS1601S
MVAS1201T - MVAS1401T - MVAS1601T



MVAS Outdoor Units also with Single Indoor Duct-Type Units

STANDARD OUTDOOR UNITS
MVAS2242T - MVAS2802T

COMPATIBLE INDOOR UNITS
MVA2240DH
MVA2800DH

CHARACTERISTICS

OUTDOOR UNITS

MVAS (STANDARD)
- Standard outdoor unit available in 9 sizes with nominal cooling capacity from 12,1kW to 33,5kW .
- From 1 to 16 connectible Indoor Units.
- Total maximum length of the refrigerant lines up to 300 m.
- Base Electric Heater as standard for sizes: MVAS1201S-1401S-1601S e MVAS1201T-1401T-1601T

MVAM (MODULAR)
- Modular outdoor units available in 8 base modules with nominal cooling capacity from 22,4kW to 61,50kW .
- From 1 to 80 connectible Indoor Units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system: Base modules that can be combined (max. 4) for a total of 33 recommended combinations, with cooling capacity values from 68.0kW to 246.0kW.

MVAMHR (MODULAR c/w 3 PIPES)
- Modular outdoor units available in 5 base modules with nominal cooling capacity from 22,4kW to 45kW .
- From 1 to 80 connectible Indoor Units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system: Base modules that can be combined (max. 4) for a total of 24 recommended combinations, with cooling capacity values from 50,40kW to 180,0kW .
- Possibility of managing Hot or Cold modes independently and simultaneously MVAMHR 3-pipe Outdoor Units must be interfaced with two dual pipe MVA series Indoor Units using the Exchange Module (MEB) available with one, two, four or eight branches. **MEB: compulsory accessory for 3-pipe systems.**

For All Modular Outdoor Units
- Management optimised over operating time of the compressors under partial loads
- Emergency operation, in the event of problems with the compressors or fans, allows operation of the system with a reduced number of compressors and/or fans for a limited time.
- Channelled Air Delivery from 0PA (default) to 82Pa of Effective Static Head set via dip switches.

For cooling line connections, refer to the accessories section -Refnet Joints

INDOOR UNITS

- **WALL**
  MVA_W: Wall for wall mounting (220-240V ~ 50Hz)
  MVA_WS: Wall for wall mounting (208-230V ~ 60Hz)

- **4-way CASSETTE**
  Cassette for suspended ceiling installation, subdivided into the following configurations:
  MVA_CS: Cassette 600 x 600
  (Mandatory accessory GL40S).
  MVA_C: Cassette 840 x 840
  (Mandatory accessory GL40).
  MVA_CB: Cassette 910 x 910
  (Mandatory accessory GL40B).
- **-1-way CASSETTE**
  MVA_C1: Cassette
  (Mandatory accessory - GLC1)
- **FLOOR CEILING**
  MVA_F: Floor Ceiling for floor or ceiling installation.
  MVA_FS: Console for floor mounting.
  Air Ionizer (Cold Plasma Generator).
- **DUCT**
  MVA_D: Low Hydraulic Head Duct for horizontal ceiling mounting.
  MVA_DH: High Hydraulic Head Duct for ducted horizontal ceiling mounting.
- **COLUMN**
  MVA_V: Column for installations in large areas.

GENERAL FEATURES:

- Refrigerant gas R410A.
- Total Capacity connected to the Outdoor Units between 50% and 135% of the rated capacity of the selected configuration.
- Indoor Units fitted with electronic expansion valve on board.
- WRC (Soft Touch) Wired panel for wall mounting, standard on all Indoor Units It can manage a single Indoor Unit or can be used to manage a set of Indoor Units (up to a maximum of 16) with the same settings.
- WLRC infrared remote control, standard on all Indoor Units.
- DC Inverter compressors were selected to maximise efficiencies, reduce consumption, minimise pickup power input, to have efficient control of the oil return and accurate control of the room temperature and humidity.
- Outdoor units fitted with fans with continuous variable speed inverter motor.
- Microprocessor control.
- In the MVA system the chiller connections were made using braze welded Y-joints and F-joints (provided as a mandatory accessory), ensuring flexibility in the installation and full compliance with safety standards, as well as a lower environmental impact due to the absence of leaks.
- Extremely quiet operation.
- Auto-Restart function active by default, can be deactivated.
- Standard condensate control device; allows cooling operation with low outside temperatures.
- Serial communication in CANBUS protocol.
- Easy installation thanks to non-polarised serial connections and the self-addressing function of the indoor units.

CONTROL SYSTEMS


WRC
(standard on all Indoor Units)


WRC1


MVASZC


CC2


USBDC


MODBUSGW


BACNETGW

Control Systems Compatible with all Systems

REFNET JOINTS

Outdoor units

MVAM - 2-pipe system	MVAHR - 3-pipe system
RNYM01	RNYMHR RNYHR

Indoor units

RNY (Y-Type)	RNY41
RNY11	RNF (F-Type)
RNY12	RNF14
RNY21	RNF18
RNY31	RNF18B


RNY


RNF

Advantages of the modular system

The compact dimensions of the MVA series ensure easy transport to the destination site. The units can be transferred easily to the roofs of buildings without requiring cranes but using lifts.
The modules are easy to install and link together from the cooling point of view, thanks to the connections with dedicated Refnet joints.
Modularity is essential as it also allows high-capacity systems to be created in a quick, simple way.

Hot / Cold modes are independent and simultaneous *(only for MVAMHR units)*

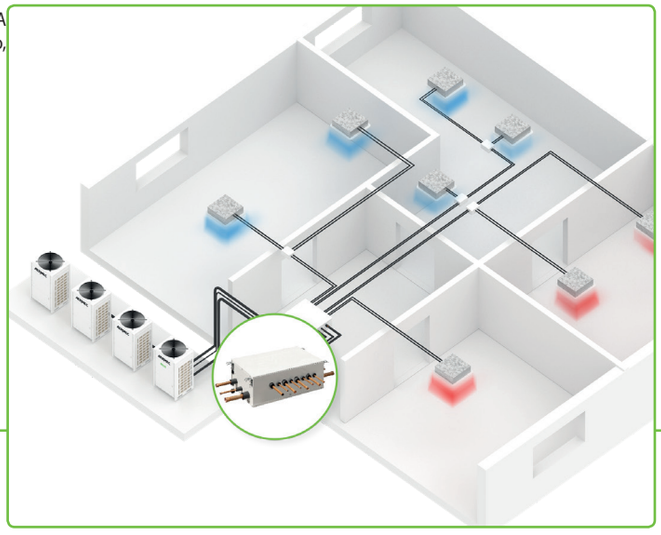
In 3-Pipe Units, Hot or Cold modes can be managed **Independently and Simultaneously**.
MVAMHR 3-pipe Outdoor Units must be interfaced with two dual pipe MVA series Indoor Units using the **Exchange Module (MEB)** available with one, two, four or eight branches.

MEB: compulsory accessory for 3-pipe systems.

The MVAM HR VRF heat recovery system heats and cools at the same time with one single circuit. MVAM HR recovers the heat produced during cooling and uses it to heat certain rooms cost-free, maximising energy efficiency and reducing energy costs.

Ideal for tertiary and commercial sector buildings, it connects up to 4 outdoor units (maximum cooling capacity 180 kW) and 1-80 indoor units of different versions.
For hotel owners, this means perfect comfort for guests, who can freely choose between cooling or heating. For offices, it means the ideal conditions in the work context, regardless of exposure to the sun or the type of use.





ACCESSORIES

MVASZC
Simplified Centralised Control (4,3" touch screen display), which can be used to manage up to 32 Indoor Units distributed across a maximum of 16 Systems.

AHUKIT
Available in 5 sizes, the kit is intended to be combined with a cooling and/or heating direct expansion coil at R410A on an air conditioning unit, not supplied as an MVA component but functionally connected to an MVA system, having appropriate dimensions.
AHUKIT and the air conditioning unit connected to it are intended to condition recirculated and/or returning fresh air within operating limits, with adjustment of the temperature of the intake ambient air.

CC2
Centralised Control (7" touch screen display), which can be used to manage up to 255 Indoor Units distributed across a maximum of 16 Systems.

WRC
Wired Soft-Touch panel this Accessory is supplied as standard with all Indoor Units; it is also possible to purchase an additional WRC Wired Panel to control a single Indoor Unit or set of Indoor Units (up to a maximum of 16), with the same settings from two separate locations.

WRC1
Simplified control wired panel for Indoor Units equipped with an Integrated External Contact.
This panel is particularly suitable for hotel applications. It can control a single Indoor Unit or a set of Indoor Units (up to a maximum of 16) with the same settings from two separate locations.

USBDC
This kit includes a CANBUS to ModBUS converter and the VRF Debugger software. It was related to meet the needs of after sales service or authorised technicians who must carry out control and debugging procedures on the MVA range.

MODBUSGW
This accessory allows you to manage up to 16 MVA systems (with a maximum total of 128 indoor units), making a serial Modbus available for supervision with an external BMS.

BACNETGW
This accessory allows you to manage up to 16 MVA systems (with a maximum total of 255 indoor units), making a serial Modbus available for supervision with an external BMS.

Air delivery and recovery grille for indoor Cassette-type units.

Mandatory accessory

Grille Model	Cassette Indoor Unit			4-WAY	1-WAY	Dimensions	Weight
	MVA_CS	MVA_C	MVA_CB			LxHxW (mm)	kg
GL40S	●	-	-	●	-	670 x 670 x 50	3,5
GL40	-	●	-	●	-	950 x 950 x 60	7
GL40B	-	-	●	●	-	1040 x 1040 x 65	8
GLC1	-	-	-	-	●	1200 x 460 x 55	4,2

ACCESSORIES

REFNET JOINTS - Connection between Modular Outdoor Units

Y-joints for cooling connection between 2 Outdoor Units in Modular Systems. **Mandatory Accessory for Modular Systems.**
A modular system made up of n base modules requires n-1 Y-joints.

MVAM - 2-pipe system

RNYM01

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

MVAHR - 3-pipe system

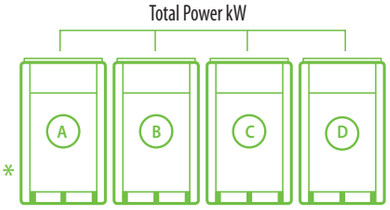
RNYMHR

Accessory comprising 3 Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

CODE	TYPE	Outdoor Unit Combinations Sum of powers kW	
		≥	≤
RNYMHR10	Y	50,4	96
RNYMHR20	Y	96	-

Number of REFNET Kits needed per system

* Total Modules (A+B+C+D) no.	Sum of Powers (kW)	REFNET	no. of kits needed
1	50,4 <	-	-
2	≥ 50,4 - 96 ≤	RNYMHR10	1
3	≥ 50,4 - 96 ≤	RNYMHR10	2
3	>96	RNYMHR20	2
4	>96	RNYMHR20	3



CONNECTION BETWEEN MODULAR OUTDOOR UNITS AND MEB (EXCHANGE MODULE)

RNYHR

Accessory for connecting outdoor units with the MEB exchange module.
Comprises three Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

CODE	TYPE	Outdoor Unit Combinations Sum of powers kW	
		≥	≤
RNYHR10	Y	-	5
RNYHR20	Y	5	22.4
RNYHR30	Y	22.4	28
RNYHR40	Y	28	68
RNYHR50	Y	68	96
RNYHR60	Y	96	135
RNYHR70	Y	135	-

MEB

Exchange module with one, two, four or eight branches (each single branch can manage heating or cooling mode independently of the others, but simultaneously) for interfacing the MVAMHR 3-pipe outdoor units with the MVA 2-pipe indoor units:

Code	Branches	Maximum cooling capacity that can be managed (per single branch)	Total Power Managed by MEB	Connectible indoor units
	no.	(kW)	(kW)	n° MAX
MEB10	1	14,2	-	6
MEB20	2	14,2	-	6
MEB40	4	14,2	45≤	6
MEB80	8	14,2	68≤	6

In order to connect indoor units with a capacity higher than 14kW, you must use two branches joined into one by means of a suitable RNY kit, and ensure the right setting of the dip-switches on the distribution box

MEB10



MEB20



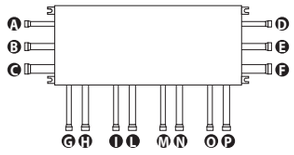
MEB40



MEB80



MEB exchange module:



Cooling connection	Description
A	Liquid (left side)
B	Gas (high pressure) (left side)
C	Gas (low pressure) (left side)
D	Liquid (right side)
E	Gas (high pressure) (right side)
F	Gas (low pressure) (right side)
G	Liquid (branch 1)
H	Gas (branch 1)
I	Liquid (branch 2)
L	Gas (branch 2)
M	Liquid (branch 3)
N	Gas (branch 3)
O	Liquid (branch 4)
P	Gas (branch 4)

JOINTS for connection between Indoor Units

RNY

Accessory made up of two Y-joints, one for the liquid line and one for the discharge line.

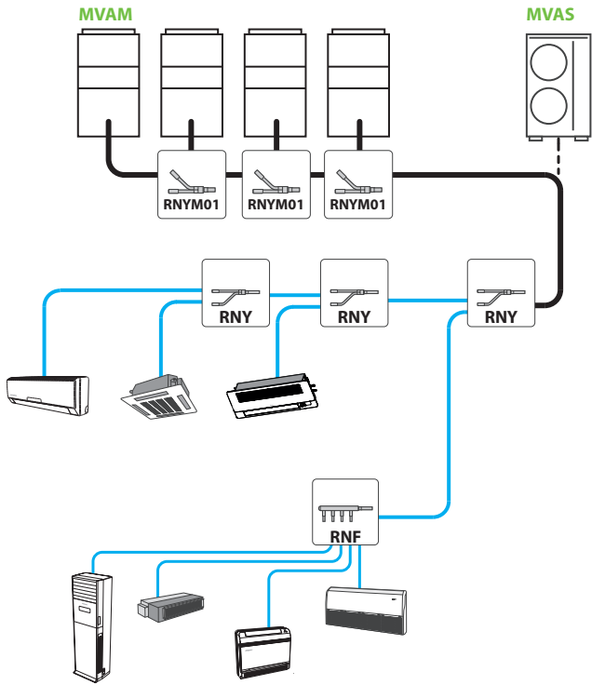
RNF

Accessory made up of two F-joints, one for the liquid line and one for the discharge line.

CODE	SYSTEM TYPE		TYPE	Total power (down-line)		Maximum 1-Way Connectable Power	no. of Connectable Indoor Units
	2 PIPES	3 PIPES		>	≤		
RNY11	●	●	Y	-	20kW	-	-
RNY12	●	●		20kW	30kW	-	-
RNY21	●			30kW	70kW	-	-
RNY31	●			70kW	135kW	-	-
RNY41	●			135kW	-	-	-
RNF14	●		F	-	40kW	16kW	from 2 to 4
RNF18	●			-	68kW	16kW	from 4 to 8
RNF18B	●			68kW	-	16kW	from 4 to 8

For more information, refer to the installation manual available at www.aermec.com

EXAMPLE OF COOLING CONNECTION



MVAS - MVAM

2-pipe system
Cold or Hot operation

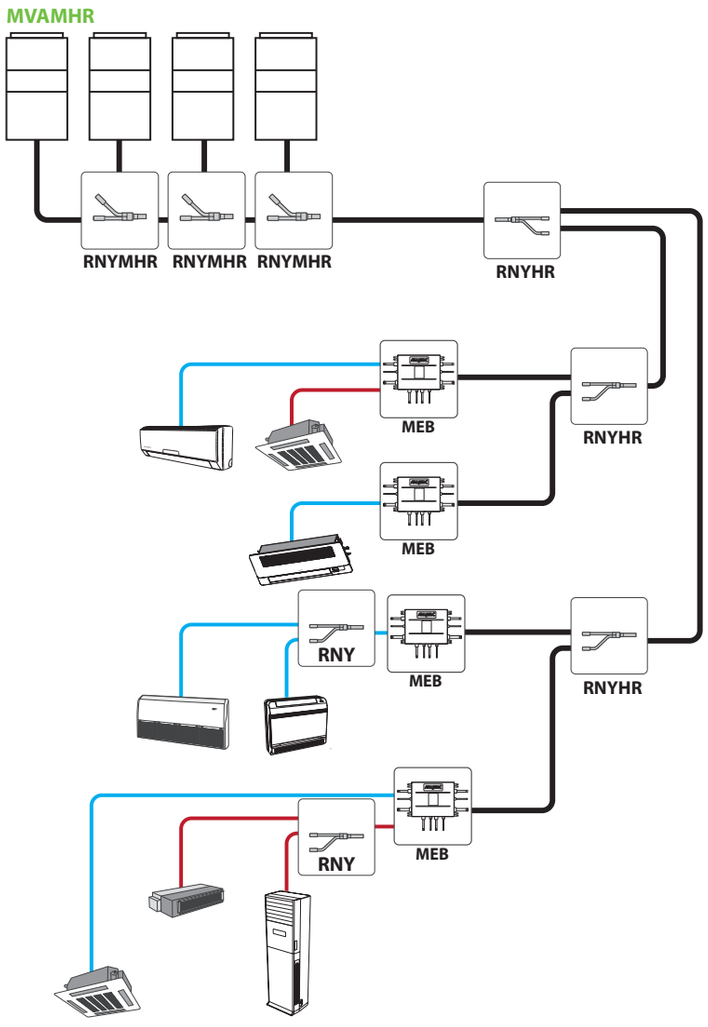
Cooling mode

Maximum Total length of Cooling Lines
MVAS: 300m
MVAM: 1000m

When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n Base Modules requires n-1 Y-joints.

Code	Type	Number of joints included in a Single Kit
RNYM01	Y	2 (Liquid / Gas)
RNY	Y	2 (Liquid / Gas)
RNF	F	2 (Liquid / Gas)



MVAMHR

3-pipe system
Cold or Hot operation
Simultaneous Cold and Hot operation

Cooling mode
Heating mode

Maximum Total length of Cooling Lines
MVAMHR: 1000m

When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n Base Modules requires n-1 Y-joints.

Code	Type	Number of joints included in a Single Kit
RNYMHR	Y	3 (Liquid / High Pressure Gas / Low Pressure Gas)
RNYHR	Y	3 (Liquid / High Pressure Gas / Low Pressure Gas)
RNY	Y	2 (Liquid / Gas)
RNF	F	2 (Liquid / Gas)

MVAS - Connectable Units

MVAS	Power Cooling Nominal (kW)	N° Min Unit Indoor	N° Max Unit Indoor
1201S	12,1	2	7
1401S	14	2	8
1601S	16	2	9
1201T	12,1	2	7
1401T	14	2	8
1601T	16	2	9
2242T	22,4	1	13
2802T	28	1	17
3351T	33,5	2	20

MVAS Outdoor Units with Single Indoor Duct-Type Units

MVAS	Nominal Cooling Capacity (kW)	Number of Indoor Units	Compatible Indoor Unit
2242T	22,4	1	MVA2240DH
2802T	28,0	1	MVA2800DH

MVAM - Recommended configurations

	Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Base Module	22,40	2241T	---	---	---	1	13
	28,00	2801T	---	---	---	1	16
	33,50	3351T	---	---	---	1	19
	40,00	4001T	---	---	---	1	23
	45,00	4501T	---	---	---	1	26
	50,40	5041T	---	---	---	1	29
	56,00	5601T	---	---	---	1	33
	61,50	6151T	---	---	---	2	36
Combinations	68,00	2801T	4001T	---	---	2	39
	73,00	2801T	4501T	---	---	2	43
	78,40	2801T	5041T	---	---	2	46
	84,00	2801T	5601T	---	---	2	50
	89,50	2801T	6151T	---	---	2	53
	95,00	3351T	6151T	---	---	2	56
	101,50	4001T	6151T	---	---	2	59
	106,50	4501T	6151T	---	---	2	63
	111,90	5041T	6151T	---	---	3	64
	117,50	5601T	6151T	---	---	3	64
	123,00	6151T	6151T	---	---	3	64
	129,00	2801T	4501T	5601T	---	3	64

	Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Combinations	134,50	2801T	4501T	6151T	---	3	64
	140,00	3351T	4501T	6151T	---	3	66
	145,50	2801T	5601T	6151T	---	3	69
	151,00	2801T	6151T	6151T	---	3	71
	156,50	3351T	6151T	6151T	---	3	74
	163,00	4001T	6151T	6151T	---	3	77
	168,00	4501T	6151T	6151T	---	4	80
	173,40	5041T	6151T	6151T	---	4	80
	179,00	5601T	6151T	6151T	---	4	80
	184,50	6151T	6151T	6151T	---	4	80
	190,50	2801T	4501T	5601T	6151T	4	80
	195,90	2801T	5041T	5601T	6151T	4	80
	201,50	2801T	5601T	5601T	6151T	4	80
	207,00	2801T	5601T	6151T	6151T	4	80
	212,50	2801T	6151T	6151T	6151T	4	80
	218,00	3351T	6151T	6151T	6151T	4	80
	224,50	4001T	6151T	6151T	6151T	5	80
	229,50	4501T	6151T	6151T	6151T	5	80
	234,90	5041T	6151T	6151T	6151T	5	80
	240,50	5601T	6151T	6151T	6151T	5	80
	246,00	6151T	6151T	6151T	6151T	5	80

MVAM - Permitted Configurations

Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
50,40	2241T	2801T	---	---	1	29
56,00	2801T	2801T	---	---	1	33
61,50	2801T	3351T	---	---	2	36
78,50	3351T	4501T	---	---	2	46
85,00	4001T	4501T	---	---	2	50
90,00	4501T	4501T	---	---	2	53
96,00	2801T	2801T	4001T	---	2	56
101,00	2801T	2801T	4501T	---	2	59
106,50	2801T	3351T	4501T	---	3	63
113,00	2801T	4001T	4501T	---	3	64
118,00	2801T	4501T	4501T	---	3	64

Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
123,50	3351T	4501T	4501T	---	3	64
130,00	4001T	4501T	4501T	---	3	64
135,00	4501T	4501T	4501T	---	3	64
141,00	2801T	2801T	4001T	4501T	3	66
146,00	2801T	2801T	4501T	4501T	3	69
151,50	2801T	3351T	4501T	4501T	3	71
158,00	2801T	4001T	4501T	4501T	3	74
163,00	2801T	4501T	4501T	4501T	3	77
168,50	3351T	4501T	4501T	4501T	4	80
175,00	4001T	4501T	4501T	4501T	4	80
180,00	4501T	4501T	4501T	4501T	4	80

MVAMHR - Configurations

	Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Base Module	22,40	2240T	---	---	---	1	13
	28,00	2800T	---	---	---	1	16
	33,50	3350T	---	---	---	1	19
	40,00	4000T	---	---	---	1	23
	45,00	4500T	---	---	---	1	26
Combinations	50,40	2240T	2800T	---	---	1	29
	56,00	2800T	2800T	---	---	1	33
	61,50	2800T	3350T	---	---	2	36
	68,00	2800T	4000T	---	---	2	39
	73,00	2800T	4500T	---	---	2	43
	78,50	3350T	4500T	---	---	2	46
	85,00	4000T	4500T	---	---	2	50
	90,00	4500T	4500T	---	---	2	53
	96,00	2800T	2800T	4000T	---	2	56
	101,00	2800T	2800T	4500T	---	2	59

	Rated Cooling Capacity	MVAM Combination Module				Connectable indoor units Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Combinations	106,50	2800T	3350T	4500T	---	3	63
	113,00	2800T	4000T	4500T	---	3	64
	118,00	2800T	4500T	4500T	---	3	64
	123,50	3350T	4500T	4500T	---	3	64
	130,00	4000T	4500T	4500T	---	3	64
	135,00	4500T	4500T	4500T	---	3	64
	141,00	2800T	2800T	4000T	4500T	3	66
	146,00	2800T	2800T	4500T	4500T	3	69
	151,50	2800T	3350T	4500T	4500T	3	71
	158,00	2800T	4000T	4500T	4500T	3	74
	163,00	2800T	4500T	4500T	4500T	3	77
	168,50	3350T	4500T	4500T	4500T	4	80
	175,00	4000T	4500T	4500T	4500T	4	80
	180,00	4500T	4500T	4500T	4500T	4	80

Modular system achieved by combining 2 to 4 base modules.
Connections between base modules must be made on installation.

(1) the sum of powers for indoor units may never be less than 50% of the rated cooling capacity of the outdoor unit (or the sum of units) selected;

(2) the sum of powers for indoor units may never be more than 135% of the rated cooling capacity of the outdoor unit (or the sum of units) selected;

Outdoor Units Technical Data

2-PIPE SYSTEM

Outdoor units		MVAS	1201S	1401S	1601S	1201T	1401T	1601T	2242T	2802T	3351T
Cooling Capacity (Nominal)		kW	12,10	14,00	16,00	12,10	14,00	16,00	22,4	28,0	33,5
Input power (Nominal)		kW	3,03	3,59	4,75	3,03	3,59	4,75	6,12	7,78	9,57
Input Current (Nominal)		A	-	-	-	-	-	-	10,90	13,90	17,10
EER		W/W	3,99	3,90	3,37	3,99	3,90	3,37	3,66	3,60	3,50
Heating Capacity (Nominal)		kW	14,00	16,50	18,00	14,00	16,50	18,00	24,0	30,0	35,0
Input power (Nominal)		kW	3,27	3,95	4,65	3,27	3,95	4,65	4,90	6,12	7,14
Input Current (Nominal)		A	-	-	-	-	-	-	8,80	10,90	12,80
COP		W/W	4,28	4,18	3,87	4,28	4,18	3,87	4,90	4,90	4,90
Rated Input Power (1)		kW	-	-	-	-	-	-	9,6	12,5	13,7
Rated Input Current (1)			30,4	33,7	36,3	11,1	12,0	12,5	17,2	22,4	24,5
Refrigerant Gas		Type / GWP	R410A / 2088kgCO2eq								
Refrigerant Charge		kg	3,3	3,3	3,3	3,30	3,30	3,30	5,5	7,1	8,0
Compressors		DC Inverter	1	1	1	1	1	1	1	1	1
Nominal Air Flow Rate		m^3/h	6000	6300	6600	6000	6300	6600	8000	11000	11000
Maximum Total Length of Lines		m	300	300	300	300	300	300	300	300	300
Fans		no.	2	2	2	2	2	2	2	2	2
Sound pressure (2)		dB(A)	57	58	58	57	58	58	63	65	65
Chiller Connections	Ø liquid	mm (inch)	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")	19,05 (3/4")	22,2 (7/8")	25,4 (1")
	Ø gas	mm (inch)	15,9(5/8")	15,9(5/8")	19,05(3/4")	15,9(5/8")	15,9(5/8")	19,05(3/4")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
	Type		Flared	Flared	Flared	Flared	Flared	Flared	To be soldered	To be soldered	To be soldered
Power Supply			220-240V ~ 50Hz 208-230V ~ 60Hz			380-415V 3N ~ 50Hz 380-415V 3N ~ 60Hz			380-415V 3N~ 50Hz 380-415V 3N ~ 60Hz		

Outdoor units		MVAM	2241T	2801T	3351T	4001T	4501T	5041T	5601T	6151T
Cooling Capacity (Nominal)		kW	22,40	28,00	33,50	40,00	45,00	50,40	56,00	61,50
Input power (Nominal)		kW	4,74	6,25	8,40	10,53	12,82	15,75	20,00	29,29
Input Current (Nominal)		A	8,47	11,17	15,02	18,82	22,92	28,15	35,75	52,35
EER		W/W	4,73	4,48	3,99	3,80	3,51	3,20	2,80	2,10
Heating Capacity (Nominal)		kW	25,00	31,50	37,50	45,00	50,00	56,50	63,00	69,00
Input power (Nominal)		kW	4,81	5,67	7,14	9,51	10,86	14,10	16,60	18,90
Input Current (Nominal)		A	8,60	10,14	12,76	17,00	19,41	25,20	29,67	33,78
COP		W/W	5,20	5,56	5,25	4,73	4,60	4,01	3,80	3,65
Rated Input Power (1)		kW	9	11,7	13,8	16,10	18,60	25,00	28,00	30,00
Rated Input Current (1)		A	16,1	20,9	24,6	28,8	33,2	44,7	50,0	53,6
Refrigerant Charge		Type / GWP	R410A / 2088kgCO2eq							
Filling coolant gas		kg	5,90	9,00	8,20	9,80	10,30	11,30	14,30	14,30
Compressors		DC Inverter	1	1	1	2	2	2	2	2
Nominal Air Flow Rate		m^3/h	11400	11400	14000	14000	16000	16000	16000	16000
Maximum Total Length of Lines		m	1000	1000	1000	1000	1000	1000	1000	1000
Fans		n.	1	1	1	2	2	2	2	2
Sound pressure (2)		dB (A)	60	61	63	63	63	63	63	64
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
	Ø gas	mm (inch)	19,05 (3/4")	22,2 (7/8")	25,4 (1")	25,4 (1")	28,6 (1" 1/8)	28,6 (1" 1/8)	28,6 (1" 1/8)	28,6 (1" 1/8)
	Ø oil balancing	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Type		To be soldered	To be soldered	To be soldered	To be soldered	To be soldered	To be soldered	To be soldered	To be soldered
Power Supply			380-415V 3N ~ 50Hz 380-415V 3N ~ 60Hz							

3-PIPE SYSTEM

Outdoor units		MVAMHR	2240T	2800T	3350T	4000T	4500T
Cooling Capacity (Nominal)		kW	22,4	28,0	33,5	40,0	45,0
Total Power Input (Nominal)		kW	5,20	6,9	8,2	10,6	12,1
Input Current (Nominal)		A	9,3	12,3	14,7	18,9	21,6
EER		W/W	4,31	4,06	4,09	3,77	3,72
Heating Capacity (Nominal)		kW	25	31,5	37,5	45,0	50,0
Input power (Nominal)		kW	5,30	7,30	8,70	10,8	12,5
Input Current (Nominal)		A	9,5	13	15,6	19,3	22,3
COP		W/W	4,72	4,32	4,31	4,17	4,00
Rated Input Power (1)		kW	9,10	11,70	13,80	16,1	18,6
Rated Input Current (1)		A	16,3	20,9	24,7	28,8	33,2
Refrigerant Charge		Type / GWP	R410A / 2088kgCO2eq				
Filling coolant gas		kg	6,2	7,1	9,6	11,1	11,6
Compressors		DC Inverter	1	1	1	2	2
Nominal Air Flow Rate		m^3/h	11400	11400	14000	14000	14000
Maximum Total Length of Lines		m	1000	1000	1000	1000	1000
Fans		n.	1	1	1	2	2
Sound pressure (2)		dB (A)	60	61	63	63	63
Chiller Connections	Ø Liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
	Ø Gas (high pressure)	mm (inch)	15,9(5/8")	19,05(3/4")	19,05(3/4")	22,2(7/8")	22,2(7/8")
	Ø Gas (low pressure)	mm (inch)	19,05(3/4")	22,2(7/8")	25,4(1")	25,4(1")	28,6(1"1/8)
	Type		To be soldered	To be soldered	To be soldered	To be soldered	To be soldered
Power Supply			380-415V 3N ~ 50Hz 380-415V 3N ~ 60Hz				

Cooling (EN-14511)
Room air temperature 27°C D.B. / 19°C W.B. outside air temperature 35°C

Heating (EN-14511)
Room air temperature 20°C D.B.; Outside air temperature 7°C d.b. / 6°C w.b.

(1) The *Rated Input Power (Rated Input Current)* is the *Maximum Electrical Power (Maximum Electrical Current) absorbed* by the system, according to EN-60335-1 and EN-60335-2-40
(2) *Sound Pressure* measured in a *Semi Anechoic Chamber* at 1m from the unit.

Indoor Units - Technical Data

WALL

Indoor units		MVA	220W	280W	360W	450W	500W	560W	630W	710W
Cooling Capacity		kW	2.20	2,80	3.60	4.50	5,00	5.60	6,30	7.10
Heating Capacity		kW	2,50	3,20	4,00	5,00	5.80	6,30	7.00	7.50
Nominal Input Power (1)		W	50	50	60	60	60	70	70	70
Nominal Air Flow Rate		m^3/h	500	500	630	630	630	750	750	750
Sound Pressure (min.)		dB(A)	30	30	38	38	38	38	38	38
Sound Pressure (max.)		dB(A)	38	38	44	44	44	44	44	44
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz							

Indoor units		MVA	220WS	280WS	360WS	450WS	500WS	560WS	630WS	710WS
Cooling Capacity		kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30	7,10
Heating Capacity		kW	2,50	3,20	4,00	5,00	5,80	6,30	7,00	7,50
Nominal Input Power (1)		W	50	50	60	60	60	70	70	70
Nominal Air Flow Rate		m^3/h	500	500	630	630	630	750	750	750
Sound Pressure (min.)		dB(A)	30	30	38	38	38	38	38	38
Sound Pressure (max.)		dB(A)	38	38	44	44	44	44	44	44
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			208-230V ~ 60Hz							

LOW-HEAD DUCT

Indoor units		MVA	220D	250D	280D	320D	360D	400D
Cooling Capacity		kW	2.20	2,50	2,80	3,20	3.60	4,00
Heating Capacity		kW	2,50	2,80	3,20	3.60	4,00	4.50
Nominal Input Power (1)		W	35	35	35	43	43	52
Nominal Air Flow Rate		m^3/h	450	450	450	550	550	700
Nominal Effective Static Head (2)		Pa	30	30	30	30	30	30
Sound Pressure (min.)		dB(A)	25	25	25	27	27	28
Sound Pressure (max.)		dB(A)	31	31	31	32	32	33
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz					

Indoor units		MVA	450D	500D	560D	630D	710D	800D
Cooling Capacity		kW	4.50	5,00	5.60	6,30	7.10	8.00
Heating Capacity		kW	5,00	5.60	6,30	71,00	8.00	9.00
Nominal Input Power (1)		W	52	52	99	99	105	140
Nominal Air Flow Rate		m^3/h	700	700	1000	1000	1100	1100
Nominal Effective Static Head (2)		Pa	30	30	30	30	50	50
Sound Pressure (min.)		dB(A)	28	28	30	30	30	31
Sound Pressure (max.)		dB(A)	33	33	35	35	35	36
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz					

Indoor units		MVA	900D	1000D	1120D	1250D	1400D
Cooling Capacity		kW	9.00	10.00	11.20	12.50	14,00
Heating Capacity		kW	10.00	11.20	12.50	14,00	16,00
Nominal Input Power (1)		W	209	209	209	230	230
Nominal Air Flow Rate		m^3/h	1500	1500	1700	2000	2000
Nominal Effective Static Head (2)		Pa	50	50	50	50	50
Sound Pressure (min.)		dB(A)	32	32	32	37	37
Sound Pressure (max.)		dB(A)	40	40	40	42	42
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz				

HIGH-HEAD DUCT

Indoor units		MVA	560DH	630DH	710DH	800DH	900DH	1000DH
Cooling Capacity		kW	5.60	6,30	7.10	8.00	9.00	10.00
Heating Capacity		kW	6,30	7.10	8.00	9.00	10.00	11.20
Nominal Input Power (1)		W	120	120	130	130	200	200
Nominal Air Flow Rate		m^3/h	1000	1000	1000	1000	1700	1700
Nominal Effective Static Head (2)		Pa	100	100	100	100	100	100
Sound Pressure (min.)		dB(A)	36	36	37	37	42	42
Sound Pressure (max.)		dB(A)	44	44	45	45	46	46
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz					

Indoor units		MVA	1120DH	1250DH	1400DH	1600DH	2240DH	2800DH
Cooling Capacity		kW	11.20	12.50	14,00	16,00	22,40	28,00
Heating Capacity		kW	12.50	14,00	16,00	17.00	25,00	31,00
Nominal Input Power (1)		W	200	220	220	350	800	900
Nominal Air Flow Rate		m^3/h	1700	2000	2000	2050	4000	4400
Nominal Effective Static Head (2)		Pa	100	100	100	150	150	150
Sound Pressure (min.)		dB(A)	42	42	44	46	-	-
Sound Pressure (max.)		dB(A)	46	48	48	48	54	55
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	19,05(3/4")	19,05(3/4")	22,2 (7/8")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz					

SMALL 4-WAY CASSETTE

Indoor units		MVA	220CS	280CS	360CS	450CS	500CS	560CS
Cooling Capacity		kW	2.20	2,80	3.60	4.50	5,00	5.60
Heating Capacity		kW	2,50	3,20	4,00	5,00	5.60	6,30
Nominal Input Power (1)		W	35	35	35	45	45	45
Nominal Air Flow Rate		m^3/h	600	600	600	700	700	700
Sound Pressure (min.)		dB(A)	41	41	41	45	45	45
Sound Pressure (max.)		dB(A)	51	51	51	55	55	55
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz / 208-230V ~ 60Hz					

Indoor UNITS - Technical Data

4-WAY CASSETTE

Indoor units		MVA	280C	360C	450C	500C	560C	630C	710C
Cooling Capacity		kW	2,80	3.60	4.50	5,00	5.60	6,30	7.10
Heating Capacity		kW	3,20	4,00	5,00	5.60	6,30	7.10	8.00
Nominal Input Power (1)		W	48	48	48	50	59	59	68
Nominal Air Flow Rate		m^3/h	750	750	750	830	1000	1000	1180
Sound Pressure (min.)		dB(A)	-	-	-	-	-	-	-
Sound Pressure (max.)		dB(A)	36	36	36	36	37	37	38
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz						

Indoor units		MVA	800C	900C	1000C	1120C	1250C	1400C	1600CB
Cooling Capacity		kW	8.00	9.00	10.00	11.20	12.50	14,00	16,00
Heating Capacity		kW	9.00	10.00	11.20	12.50	14,00	16,00	17.50
Nominal Input Power (1)		W	68	98	98	110	110	110	130
Nominal Air Flow Rate		m^3/h	1180	1500	1500	1700	1860	1860	2100
Sound Pressure (min.)		dB(A)	-	-	-	-	-	-	-
Sound Pressure (max.)		dB(A)	38	40	40	41	43	43	47
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz						

1-WAY CASSETTE

Indoor units		MVA	220C1	280C1	360C1	450C1	500C1
Cooling Capacity		kW	2.20	2,80	3.60	4.50	5,00
Heating Capacity		kW	2,50	3,20	4,00	5,00	5.60
Nominal Input Power (1)		W	30	30	30	30	30
Nominal Air Flow Rate		m^3/h	600	600	600	830	830
Sound Pressure (min.)		dB(A)	28	28	28	30	30
Sound Pressure (max.)		dB(A)	36	36	36	40	40
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz				

CONSOLE

Indoor units		MVA	220FS	280FS	360FS	450FS	500FS
Cooling Capacity		kW	2.20	2,80	3.60	4.50	5,00
Heating Capacity		kW	2,50	3,20	4,00	5,00	5.50
Nominal Input Power (1)		W	15	15	20	40	40
Nominal Air Flow Rate		m^3/h	400	400	480	680	680
Sound Pressure (max.)		dB(A)	38	38	40	46	46
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz				

FLOOR CEILING

Indoor units		MVA	280F	360F	500F	630F	710F
Cooling Capacity		kW	2,80	3.60	5,00	6,30	7.10
Heating Capacity		kW	3.60	4,00	5.60	7.10	8.00
Nominal Input Power (1)		W	40	40	50	75	75
Nominal Air Flow Rate		m^3/h	650	650	950	1400	1400
Sound Pressure (min.)		dB(A)	32	32	33	39	39
Sound Pressure (max.)		dB(A)	36	36	42	44	44
Chiller Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz				

Indoor units		MVA	900F	1120F	1250F	1400F
Cooling Capacity		kW	9.00	11.20	12.50	14,00
Heating Capacity		kW	11.20	12.50	14,00	16,00
Nominal Input Power (1)		W	140	160	160	160
Nominal Air Flow Rate		m^3/h	1600	2000	2000	2000
Sound Pressure (min.)		dB(A)	43	42	45	45
Sound Pressure (max.)		dB(A)	50	51	52	52
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz			

COLUMN

Indoor units		MVA	1000V	1400V
Cooling Capacity		kW	10.00	14,00
Heating Capacity		kW	11,00	15.00
Nominal Input Power (1)		W	200	200
Nominal Air Flow Rate		m^3/h	1600	1600
Sound Pressure (min.)		dB(A)	46	46
Sound Pressure (max.)		dB(A)	50	50
Chiller Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")
Power Supply			220-240V ~ 50Hz | 208-230V ~ 60Hz	

Cooling (EN-14511)
Room air temperature 27°C D.B. / 19°C W.B.
outside air temperature 35°C

Heating (EN-14511)
Room air temperature 20°C D.B.;
Outside air temperature 7°C d.b. / 6°C w.b.

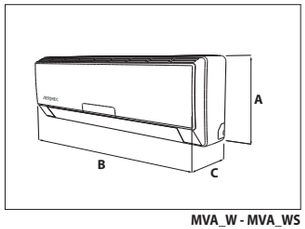
(1) The *Rated Input Power* is the *Maximum Electrical Power* absorbed by the Indoor Unit, according to EN-60335-1 and EN-60335-2-40

(2) *Nominal Effective Static Head* calculated at maximum speed.

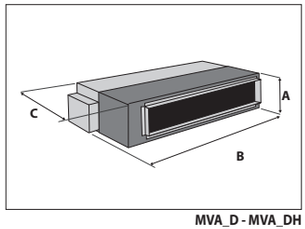
Sound Pressure measured in *Chamber Semi anechoic* a 1m from the front.

All *Cooling Connections* for *Indoor Units* are *Flared Type* except for Models MVA2240DH and MVA2800DH which are *Soldered Type*

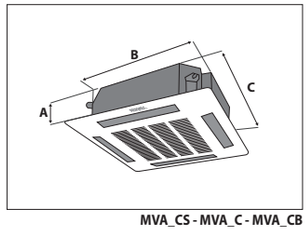
Indoor Unit Weights and Dimensions



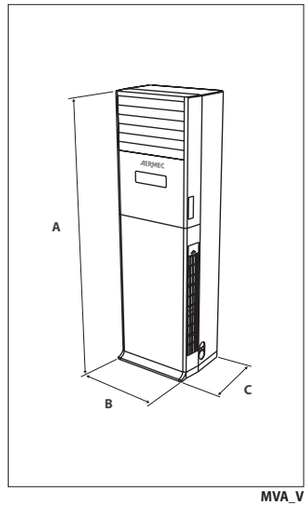
MVA_W - MVA_WS



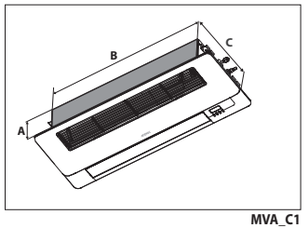
MVA_D - MVA_DH



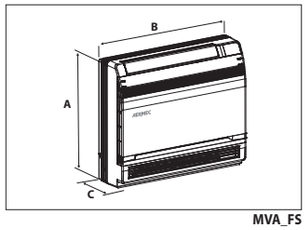
MVA_CS - MVA_C - MVA_CB



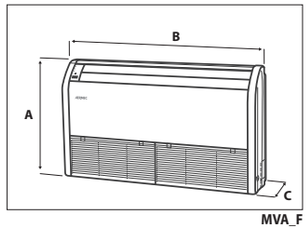
MVA_V



MVA_C1



MVA_FS



MVA_F

MVA_W	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220W	275	843	180	10
MVA280W	275	843	180	10
MVA360W	298	940	200	12,5
MVA450W	298	940	200	12,5
MVA500W	298	940	200	12,5
MVA560W	319	1008	221	15
MVA630W	319	1008	221	15
MVA710W	319	1008	221	15

MVA_WS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220WS	275	843	180	10
MVA280WS	275	843	180	10
MVA360WS	298	940	200	12,5
MVA450WS	298	940	200	12,5
MVA500WS	298	940	200	12,5
MVA560WS	319	1008	221	15
MVA630WS	319	1008	221	15
MVA710WS	319	1008	221	15

MVA_C1	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220C1	178	987	385	20
MVA280C1	178	987	385	20
MVA360C1	178	987	385	20
MVA450C1	178	987	385	21
MVA500C1	178	987	385	21
Grille dimensions GLC1 1200 x 460 x 55mm - 4,2kg				

MVA_CS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220CS	240	596	596	20,5
MVA280CS	240	596	596	20,5
MVA360CS	240	596	596	20,5
MVA450CS	240	596	596	20,5
MVA500CS	240	596	596	20,5
MVA560CS	240	596	596	20,5
Grille dimensions GL40S 670 x 670 x 50 mm - 3,5kg				

MVA_C	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA280C	190	840	840	25
MVA360C	190	840	840	25
MVA450C	190	840	840	25
MVA500C	190	840	840	25
MVA560C	240	840	840	30
MVA630C	240	840	840	30
MVA710C	240	840	840	30
MVA800C	240	840	840	30
MVA900C	320	840	840	35
MVA1000C	320	840	840	35
MVA1120C	320	840	840	35
MVA1250C	320	840	840	35
MVA1400C	320	840	840	35
Grille dimensions GL40 950 x 950 x 60 mm - 7kg				

MVA_CB	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA1600CB	293	910	910	45
Grille dimensions GL40B 1040 x 1040 x 65 mm - 8kg				

MVA_FS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220FS	600	700	215	16
MVA280FS	600	700	215	16
MVA360FS	600	700	215	16
MVA450FS	600	700	215	16
MVA500FS	600	700	215	16

MVA_F	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA280F	700	1220	225	40
MVA360F	700	1220	225	40
MVA500F	700	1220	225	40
MVA630F	700	1420	245	50
MVA710F	700	1420	245	50
MVA900F	700	1700	245	50
MVA1120F	700	1700	245	60
MVA1250F	700	1700	245	60
MVA1400F	700	1700	245	60

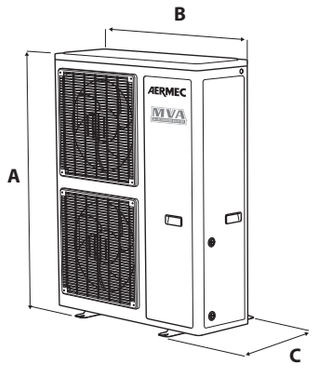
MVA_D	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220D	200	700	615	22
MVA250D	200	700	615	22
MVA280D	200	700	615	22
MVA320D	200	700	615	22
MVA360D	200	700	615	22
MVA400D	200	900	615	27
MVA450D	200	900	615	27
MVA500D	200	900	615	27
MVA560D	200	1100	615	31
MVA630D	200	1100	615	31
MVA710D	260	1200	655	31
MVA800D	260	1200	655	40
MVA900D	260	1340	655	46
MVA1000D	260	1340	655	46
MVA1120D	260	1340	655	46
MVA1250D	260	1340	655	47
MVA1400D	260	1340	655	47

MVA_DH	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA560DH	268	1271	558	35
MVA630DH	268	1271	558	35
MVA710DH	268	1271	558	35
MVA800DH	268	1271	558	35
MVA900DH	290	1229	775	47
MVA1000DH	290	1229	775	47
MVA1120DH	290	1229	775	47
MVA1250DH	290	1229	775	47
MVA1400DH	290	1229	775	47
MVA1600DH	350	1340	750	60
MVA2240DH	327	1353	632	115
MVA2800DH	402	1563	706	115

MVA_V	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA1000V	1870	580	400	54
MVA1400V	1870	580	400	57

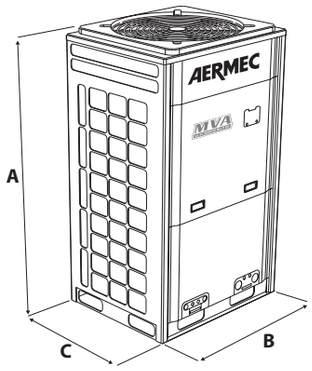
Outdoor Unit Weights and Dimensions

MVAS



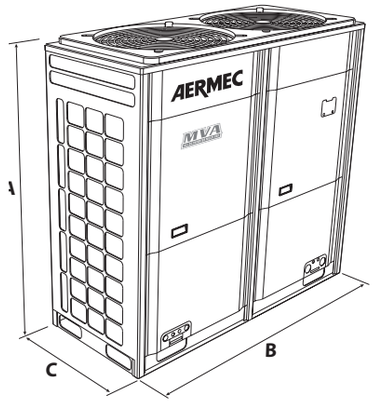
MVAS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAS1201S	1345	900	340	110
MVAS1401S	1345	900	340	110
MVAS1601S	1345	900	340	110
MVAS1201T	1345	900	340	120
MVAS1401T	1345	900	340	120
MVAS1601T	1345	900	340	120
MVAS2242T	1430	940	320	133
MVAS2802T	1615	940	460	166
MVAS3351T	1615	940	460	177

MVAM2241T
MVAM2801T



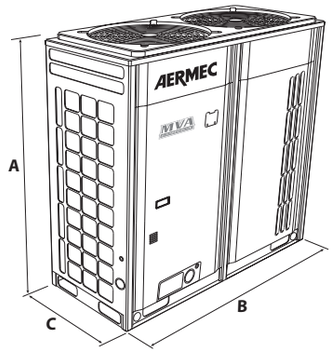
MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM2241T	1605	930	765	225
MVAM2801T	1605	930	765	225

MVAM3351T
MVAM4001T
MVAM4501T



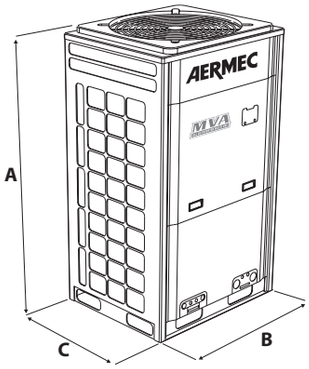
MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM3351T	1605	1340	765	285
MVAM4001T	1605	1340	765	360

MVAM4501T
MVAM5041T
MVAM5601T
MVAM6151T



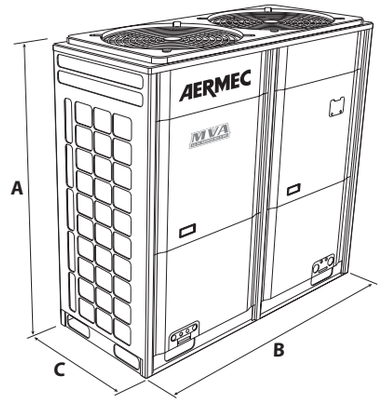
MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM4501T	1740	1340	765	360
MVAM5041T	1740	1340	765	360
MVAM5601T	1740	1340	765	385
MVAM6151T	1740	1340	765	385

MVAMHR2240T
MVAMHR2800T



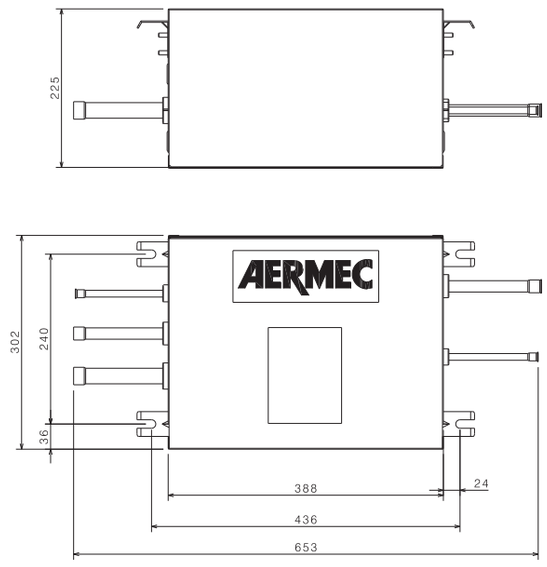
MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAMHR2240T	1605	930	765	233
MVAMHR2800T	1605	930	765	233

MVAMHR3350T
MVAMHR4000T
MVAMHR4500T

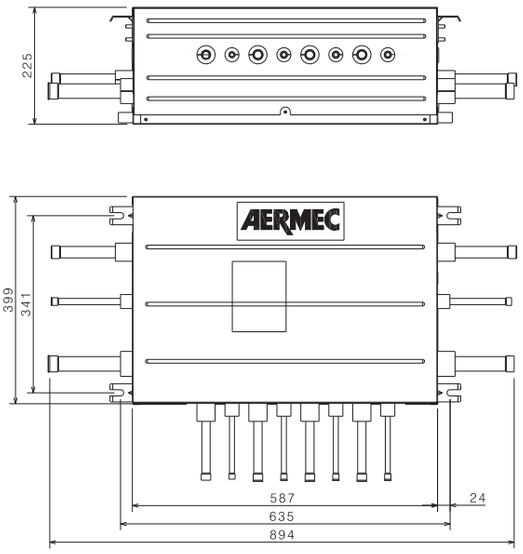


MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAMHR3350T	1605	1340	765	302
MVAMHR4000T	1605	1340	765	346
MVAMHR4500T	1605	1340	765	346

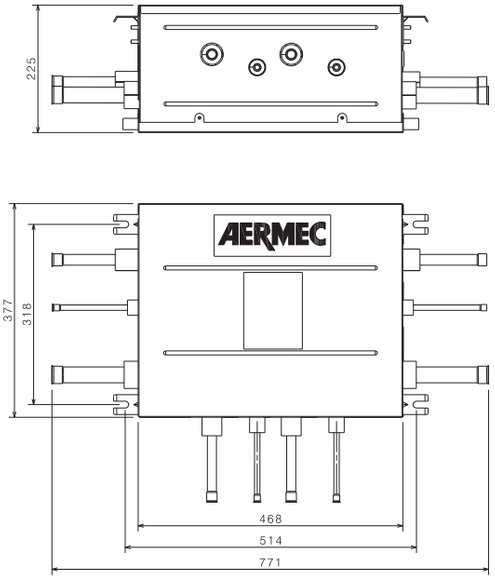
MEB exchange module - Dimensions & Weights:



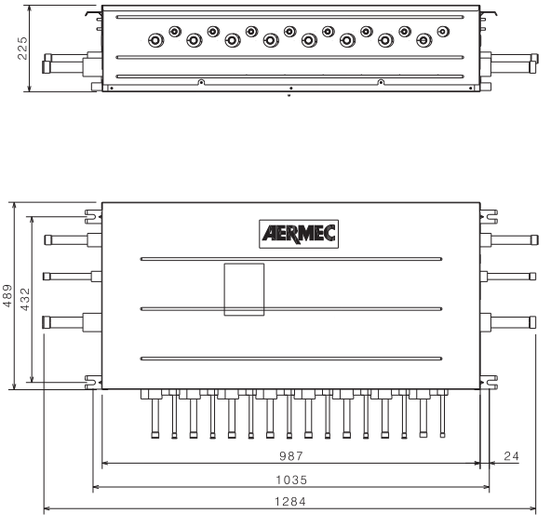
MEB10



MEB40



MEB20



MEB80

VRF SYSTEMS

Cod.: SVRFUY.00 / 18.01

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

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COMPLEMENTARY PRODUCTS

Aermec also offers a range of specific solutions that meet a whole host of air conditioning requirements, as well as those relating to installation under particular structural conditions.

COMPLEMENTARY PRODUCTS

			Air flow rate (m^3/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
Thermal Buffers tank						
	SAF	DHW Thermal Buffer tank	-	-	-	544
	SAP	Buffer tank with capacity from 75 to 3500 litres	-	-	-	546
Plug&Play hydronic kit						
	WST	Hydronic kit plug & play solution	-	82,2-283,9	-	550
Cooling towers						
	TRA	Cooling towers	-	-	-	554
Remote condensers - Dry coolers						
	CSE-CDR-CVR-CGA-CMV-CVR	Remote condensers	-	-	-	556
	WTE-WTR-WDR-WTS-WTA	Dry coolers	-	-	-	568
Water cooled condensing unit						
	MEC-W	Water-cooled packaged air conditioners	-	11,0-55,0	-	576
	FW-R	Water-cooled air conditioners	-	2,9-4,0	4,3-5,2	578
	CWX	Water cooled condensing unit	-	3,5-6,7	-	580
Dehumidifier						
	SMUFFO	Portable dehumidifier	-	-	-	584
new	**DMH_DMV**	Dehumidifiers with radiant air-conditioning systems	-	-	-	586

SAF

Thermal Buffer tank kit with instantaneous Domestic Hot Water production



VMF SYSTEM ACCESSORIES



VMF-E5N / VMF-E5B

• VARIOUS VERSIONS THAT MAKE OPTIMUM USE OF THE DIFFERENT ENERGY SOURCES
• EASE OF INSTALLATION, EVEN IN CONFINED SPACES

Features

SAF are the new thermo-buffer for the **instantaneous** production of domestic hot water (DHW).
They integrate both the energy storage element and the heat exchanger, along with the control functions, into a single unit.
The hot water is taken from the water main and heated instantaneously by means of a plate heat exchanger in stainless steel: the separation between the drinking water circuit and the water contained in the accumulator ensures maximum hygiene. IN this way, the benefits of instant production are combined with those associated with buffer production.
These devices are specifically designed and manufactured to be **combined with heat pumps** but also with traditional or biomass boilers, solar thermal systems and other renewable sources.

Versions
SAF_°: Thermal Buffer powered by a single energy source. Equipped with plate heat exchanger for instantaneous production of DHW, high-efficiency circulator inverter and printed circuit board (PCB).

SAF_S: The Thermal Buffer is set up for use and for complete management of an additional source (solar heating, boiler, etc.); in addition to the specially-designed extra coil, the system also includes a circulator dedicated to the supplementary source, along with control software designed to manage this
SAF_T: Thermal Buffer with an additional coil for the integration of an auxiliary energy source.
In addition to these versions, an supplementary heater (accessory) is also provided to respond to increased heating requirements.

Features
- The SAF system is available with a range of thermo-accumulators with different capacities, (200-300-500l), in order to meet a whole host of different DHW requirements
- The high-efficiency insulation prevents energy losses, to the advantage of the heat exchanger, allowing for significant reductions in running costs.
- The compactness and the new elegant and attractive design mean that it can be installed in restricted spaces, including those indoors.



Standard Version



Version with an additional coil for the integration

Accessories

- **VTV160:** 3-way diverter sector valve, complete with 2-point actuator, (kvs = 16).
- **MOD485K**: RS-485 interface for supervising systems with MODBUS protocol.
- **MODU-485BL**: RS-485 interface for supervising systems with MODBUS protocol.
- **VMF-E5:** recessed panel with backlit graphic LCD display and capacitive keypad, for centralised command/control of a complete hydronic system.
- **KRX-SAF:** supplementary electric heater with thermostat control from 1200W 230V/1/50Hz with connexion of 1" 1/2

COMPATIBILITY with the VMF SYSTEM
For further information about the system see the specific documentation.

Integration of SAF with Aermec heat pumps and compatibility with other accessories

Pompe di Calore	Taglie	Vers.	note	SAF	MOD485K	MODU485-BL*	VMF-E5	VTV160	KRX-SAF
ANL	020-202	H		•	•	•	•	•	•
ANLI	021-101	All	(1)	•	•	•	-	•	•
ANK	020-150	All		•	•	•	•	•	•
NRK	090-150	All		•	•	•	•	•	•
CL	025-200	H		•	•	•	•	•	•
ANKI	020-080	All	(1)	•	-	-	-	•	•
WRL	026-161	H	(1)	•	-	-	-	•	•
WRL	026-161	HT	(1)	•	-	-	-	-	•

(1) Range designed for the management domestic hot water: MOD485K and VMF-E5 accessories not required
* To be installed on board of the heat pump

Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field **Code**

1,2,3 SAF

4,5,6 **Size**

200-300-500

7 **Version**

° Standard

S With supplementary energy source management (2)

T Set up for use with supplementary energy source (2)

8,9 **fields for future development**

°

°

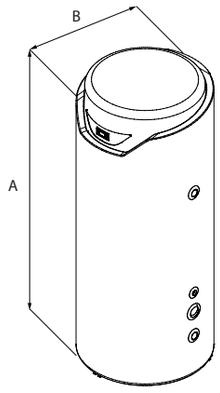
(2) Version not available for size 200

Technical data

			200	300	500	300T	500T	300S	500S
	V/ph/Hz					230V/3/50Hz			
Actual volume (technical water)		l	199	290	480	279	465	279	465
Drinking water content		l				0,85			
Coil water content		l	-	-	-	10	13	10	13
Maximum operating pressure		bar				6			
Losses through dispersion		W	59,0	68,0	80,0	68,0	80,0	68,0	80,0
Energy efficiency class	(3)(4)	-				B			
DHW minimum flow rate		l/min				2,0			
DHW maximum flow rate		l/min				35,0			
Maximum operating temperature		°C				95,0			
Sound pressure level		dB(A)				25			
Electrical Data									
Minimum input power		W	25	25	25	25	25	27	27
Maximum input power		W	75	75	75	75	75	127	127
Minimum input current		A	0,14	0,14	0,14	0,14	0,14	0,18	0,18
Maximum input current		A	0,53	0,53	0,53	0,53	0,53	1,05	1,05

(3) In accordance with Standard UNI EN 16147:2011
(4) In accordance with Delegated Regulation 812/2013

Dimensions (mm)



		200	300	500	300P	500P	300S	500S
A x B	mm	1315x710	1690x710	1740x850	1690x710	1740x850	1690x710	1740x850
Weight without water	kg	75	89	116	96	131	101	136
Weight with water	kg	275	389	616	396	631	401	636

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Cod.: SAFUY.03 /1612

SAP

Buffer tank with capacity from 75 to 3500 litres





Features

- Buffer tank with pump fully assembled to be used together with water chillers. Hydraulic connections to be site installed
- Units dimensionally compatible with Aermec NBW, NRA, R, RV water chillers, but also compatible with any chiller
- Steel enclosure with epoxy powder coating for the maximum resistance to weathering
- Electric centrifugal pumps with stainless steel impeller
- Overpressure relief valve
- Fully insulated water circuit
- Pump motors protected by circuit breakers
- SAP 0075 and 0150 can be supplied with 5 different pump models with water flow rates up to 18,000 l/h and pressures up to 140 kPa (maximum 2 pumps can be installed internally)
- SAP 0300, 0500, 0501, 0750 and 1000 can be supplied with 8 models of pumps with water flow rates up to 60,000 l/h and pressures up to 200 kPa (pump set configurations with standby pump are possible). For correct sizing of the unit consult the technical manual.
- SAP 1500, 2500 and 3500 can be supplied with 10 models of pumps with water flow rates up to 200,000 l/h and pressures up to 300 kPa (pump set configurations with standby pump are possible). For correct sizing of the unit consult the technical manual.

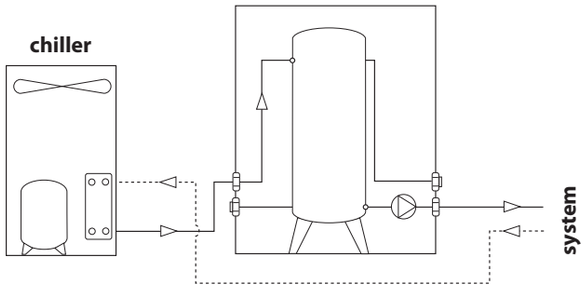
Accessories

- **AVX**: Spring anti-vibration mounts. Select the AVX model from the compatibility table included in the technical manual.
- **RX - RXV**: Electric immersion heater (RX: 500 W - RXV: 3 kW), installed and controlled by thermostats to prevent freezing during winter**. Factory fitted only.**
- **VT**: Anti-vibration mounts, set of four anti-vibration mounts to be installed under the unit's base.

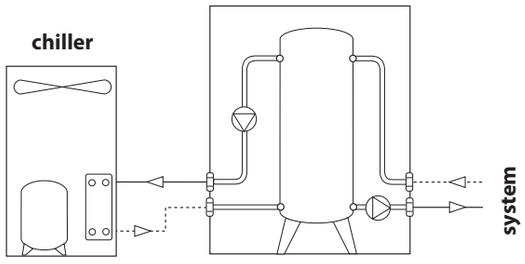
Accessory compatibility				
SAP	**RX**	**RXV**	**VT 2**	**VT 8**
0075	•			•
0150	•			•
0300	•		•	
0500 - 0501	•		•	
0750	•		•	
1000	•		•	
1500		•		
2500		•		
3500		•		

Connection Schematic Example

PRIMARY CIRCUIT



PRIMARY-SECONDARY CIRCUITUBLE RING



Technical Data

Mod. SAP		0075	0150	0300	0500	0501
Capacity	l	75	150	300	500	500
Expansion tank capacity	l	8	12	18	24	24
Relief valve setting	bar	6	6	6	6	6
Water connections	(1)	F	F	F	F	F
Connection diameter	Ø	1" 1/4	1" 1/2	2"	2" 1/2	2" 1/2

Mod. SAP		0750	1000	1500	2500	3500
Capacity	l	750	1000	1500	2500	3500
Expansion tank capacity	l	18 x 2	18 x 2	24 x 2	24 x 3	24 x 3
Relief valve setting	bar	6	6	6	6	6
Water connections	(1)	F	F			
Connection diameter	Ø	3"	3"			

Model Pump	R	T	U	V	X	Y	W	K	J	I
1500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200
2500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200
3500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200

Power supply = 3N~ 400V 50Hz.
(1) F = Female connection (Gas)
(*) PN16UNI2278

Technical Data

Pump motor power input													
Pump		**A**	**B**	**C**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**
Max. input power	W	275	330	614	895	1070	1550	2050	22000	17500	14500	3100	4100
Max. input current	A	0,5	0,69	1,1	1,6	1,9	2,8	3,6	43	36,4	30	5,6	7,2

Pump		**N**	**P**	**Q**	**R**	**T**	**U**	**V**	**W**	**X**	**Y**
Max. input power	W	1470	2600	5200	4000	5200	5800	8000	11500	9000	11000
Max. input current	A	2,6	4,4	8,8	8,5	11,5	15,5	15,5	22,5	22,5	22,5

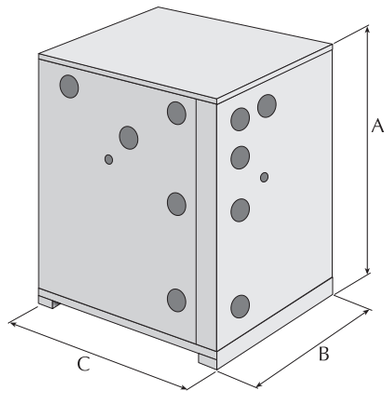
Pump combinations												
SAP 0075	AC	AE	AF	AZ	BC	BE	BF	BZ	ZC	ZE	ZF	ZZ
SAP 0150	AC	AE	AF	AZ	BC	BE	BF	BZ	CC	CE	CF	CZ
	EC	EE	EF	EZ	FC	FE	FF	FZ	ZC	ZE	ZF	ZZ
SAP 0300						CS	CZ	ES	EZ	FS	FZ	ZZ
SAP 0500				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0501				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0750				FS	FZ	GS	GZ	HS	HZ	LS	LZ	MS
					MZ	NS	NZ	PS	PZ	QS	QZ	ZZ
SAP 1000				LS	LZ	MS	MZ	NS	NZ	QS	QZ	ZZ
SAP 1500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP 2500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP 3500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ

1st letter: primary circuit.
2nd letter: secondary circuit.
A, B = multi-speed water pumps.
L, M, Q = twin pump set.
S = pump and standby pump set.
Z = without pump.

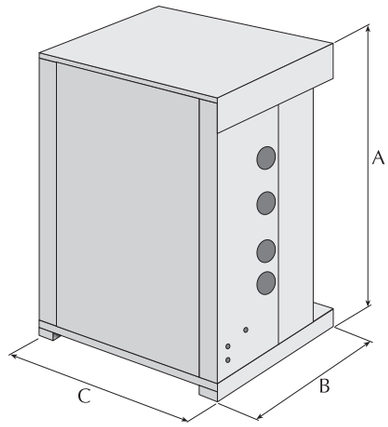
The combinations shown in the table are the only possible ones.
A large number of different flow rate/pressure combinations are available. Refer to the technical manual.

Dimensions (mm)

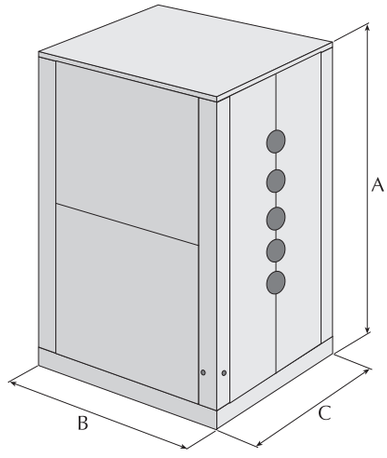
SAP 0075 - 0150



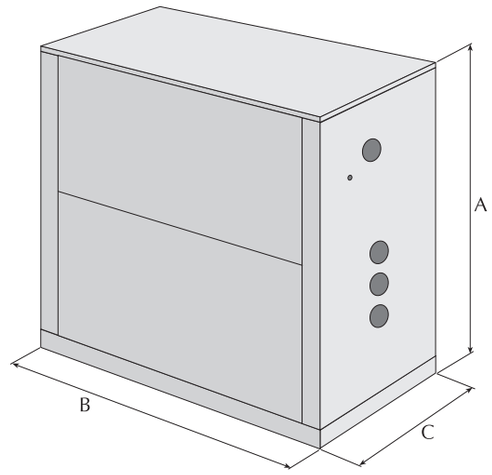
SAP 0300 - 0500



SAP 0501 - 0750



SAP 1000 - 1500 - 2500 - 3500



SAP		0075	0150	0300	0500	0501	0750	1000	1500	2500	3500
Height	A	1000	1000	1650	1650	1968	1968	2049	2049	2049	2049
Width	B	1000	1000	1100	1100	1550	1550	2200	2200	2200	2200
Depth	C	700	700	1100	1100	1000	1000	1000	1750	2000	2300
Net weight (ZZ version)	kg	120	120	190	230	310	400	445	560	710	790

Cod.: SSAPUY.05 / 0702

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WST

Water Station
Hydronic kit plug & play solution
for internal installation



- **FOR NXW RANGE**
- **PACKAGED PLUG & PLAY CONTAINING THE MAIN HYDRAULIC COMPONENTS**
- **IDEAL FOR INDUSTRIAL APPLICATIONS WHERE CHILLED WATER IS REQUIRED IN WINTER SEASONS**
- **FREECOOLING OPERATION**

Characteristics

- Hydronic plug & play kit containing the main hydraulic and controls components of a hydraulic installation.
  The WST units are designed to ease the installation in systems where the production of chilled water is required all year round, in combination with a water-water chiller and a drycooler.

Operation
Chiller: When the external air temperature is higher than the system return water temperature the cooling capacity is provided by the chiller. The WST controls the drycooler by modulating the fans on the basis of the chiller condensing pressure.

Freecooling: When the external air temperature is then lower then WST turns off the chiller and uses the water from the drycooler to cool the system water through the freecooling heat exchanger.

Hydraulic components
Hydraulic circuit (drycooler side)
- Water filter
- Flow switches
- Isolating valves
- Mixing valve
- Bypass valves
- Pumps
- Butterfly valves (enabling freecooling)
- High efficiency plate heat exchanger (freecooling)
- Water temperature sensors

Hydraulic circuit (chiller side)
- Water filter
- Flow switches
- Isolating valves
- Pumps
- Water temperature sensors

NOTE
For the combination of the hydronic kit options (drycooler / chiller side), refer to the configurator.

Control
- Microprocessor based electronic control with Modbus communications protocol.
  The WST comes standard with accesorio aer485p1. Accessory to predict compulsorily nell'NXW, for communication between the units.

Advanced electronic continuous monitoring of multiple operating parameters and ambient conditions, in order to switch between the operating modes (chiller/freecooling), when available. This permits the reduction of operating costs and provides higher energy efficiency.
- Control of the drycooler fans in order to manage the chiller condensing pressure (chiller mode), or the recovered capacity (freecooling mode).
- Cold chiller starting control by modulating the drycooler fans and the mixing valve.
- Structure and base in epoxy painted hot dipped galvanised steel.

Accessories

- **VT**: Anti-vibration mounts.

Accessories compatibility

WST only cooling		01	02	03	04	05	06
AVX	without pump stand-by	325	326	327	328	328	328
	with pump stand-by	325	327	327	329	329	329

Warning: NXW unit is required to use the attachment AER485P1

Tav. pairings WST

Chiller	WST	Dry coolers recommended (2)
NXW0500 NXW0550	WST01	WTR 824 EC 980
NXW 0600 NXW 0650	WST02	WTR 834 EC 980
NXW 0700 NXW 0750	WST03	WTR 844 EC 980
NXW 0800 NXW 0900	WST 04	WTR 854 EC 980
NXW 1000 NXW 1250	WST 05	WTR 864 EC 980
NXW 1400	WST 06	WTR 874 EC 980

The combinations are referred to the following conditions, to be verified in the case of particular conditions: refers to standard conditions

Cooling

System side

Water temperature (in/out) 12°C/7°C, Glycol 0%.

Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

(2) EC is compulsory adjustment on the fans of Dry cooler

Unit selection

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3	**WST**
4,5	**Size**
	01-02-03-04-05-06
6	**Kit freecooling**
F	Frecooling
7	**System water flow**
°	Standard (constant water flow rate)
8	**System side connected hydronic kit** (3)
P1	n° 1 Low head system pump
P2	n° 2 Low head system pumps
P3	n° 1 High head system pump
P4	n° 2 High head system pumps
9	**Drycooler side connected hydronic kit** (3)
D1	n° 1 Low head system pump
D2	n° 2 Low head system pumps
D3	n° 1 High head system pump
D4	n° 2 High head system pumps

	P1	P2	P3	P4
D1	ok	n.d.	ok	n.d.
D2	n.d.	ok	n.d.	ok
D3	ok	n.d.	ok	n.d.
D4	n.d.	ok	n.d.	ok

(3) For the compatibility between hydronic kits refer to the adjacent table

Technical data

Mod. WST Water Station			01	02	03	04	05	06
System side								
Water flow rate		l/h	17633	23458	29756	40627	51324	60613
Useful static pressure	(P1/P2)	kPa	134	133	174	164	178	119
Useful static pressure	(P3/P4)	kPa	226	217	250	235	254	198
Power input	(P1/P2)	kW	1,5	2,2	3,5	4,0	5,1	4,7
Power input	(P3/P4)	kW	2,5	3,1	4,7	5,4	6,8	6,4
Dry cooler side (chiller mode)								
Water flow rate		l/h	24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	119	126	138	173	187	178
Useful static pressure	(D3/D4)	kPa	172	201	209	250	245	214
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9
Dry cooler side (freecooling mode)								
Cooling capacity		kW	82,2	108,5	137,9	188,0	241,3	283,9
Water flow rate		l/h	24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	71	79	109	141	144	125
Useful static pressure	(D3/D4)	kPa	125	154	180	218	202	160
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9

Cooling

System side

Water temperature (in/out) 12°C/7°C, Glycol 0%.

Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

Cooling in freecooling mode (100%)

System side

Water temperature (in/out) 14°C/*; Water flow rate as in cooling operation; Glycol 0 %

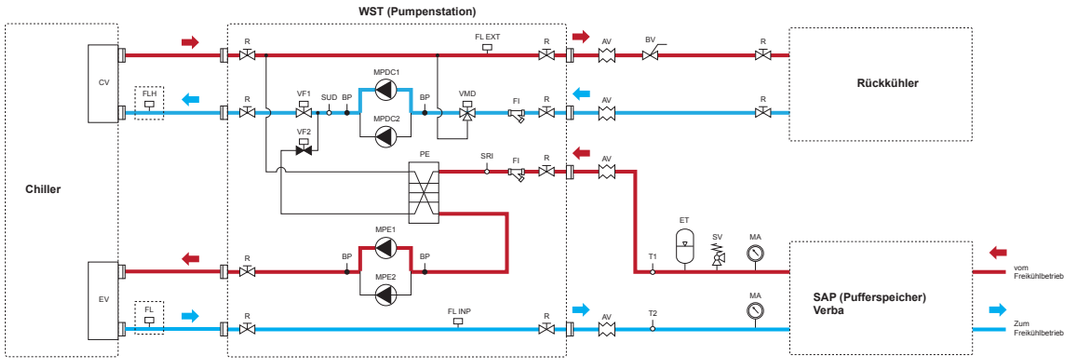
Dry-cooler side

Water temperature (in/out) 6,7°C/*; Water flow rate as in cooling operation; Glycol 35%

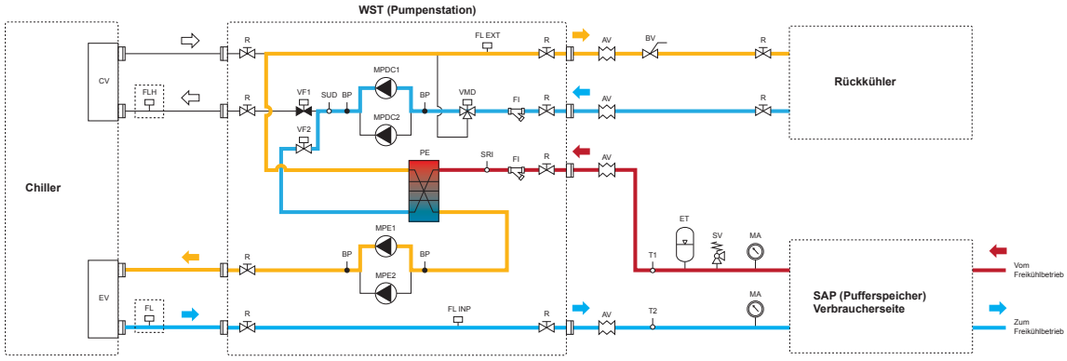
GENERAL DATA			01	02	03	04	05	06
Electrical data								
Total input current	(P1/P2)	A	2,7	3,9	5,8	6,6	8,5	7,8
	(P3/P4)	A	4,3	5,5	7,8	8,9	11,1	10,4
	(D1/D2)	A	4,0	6,0	6,6	9,9	20,8	20,3
	(D3/D4)	A	5,2	8,2	9,0	10,9	18,9	22,0
Maximum current (FLA)	P1(P2) - D1(D2)	A	8,6	13,1	16,3	19,1	31,2	37,0
	P3(P4) - D1(D2)	A	11,4	14,4	19,1	22,0	34,8	40,6
	P1(P2) - D3(D4)	A	10,0	16,0	19,1	22,7	37,0	37,0
	P3(P4) - D3(D4)	A	12,8	17,2	22,0	25,6	40,6	40,6
hydraulic connections								
hydraulic connections (in/out)		type	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic
hydraulic connections system side		Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"
hydraulic connections (chiller)		Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"
hydraulic connections (dry cooler)		Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"

Operating schematics

Chiller Operation

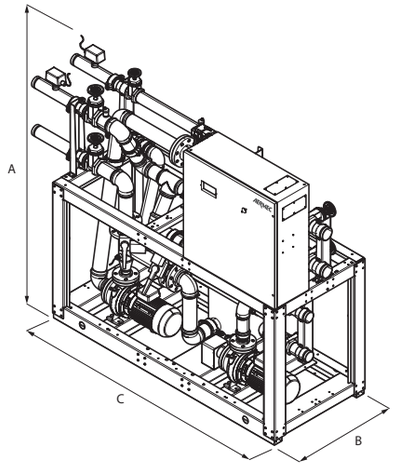


Freecooling Operation



The images and drawings contained in this document are indicative only, for the purpose of illustrating the operation

Dimensional data (mm)



Model WST Water Station				01	02	03	04	05	06
Height		A	mm	1835	1837	1835	1956	2206	2206
Width		B	mm	796	796	796	796	796	796
Depth	(3)	C	mm	1400	1500	2010	2282	2579	2623
Weight empty	without pump stand-by		Kg	487	577	684	893	1054	1074
	with pump stand-by		Kg	579	790	941	1140	1320	1350

(3) Including protrusions of the hydraulic connections

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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Cod.: SWSTUY00/1401

TRA

Cooling towers with capacities from 49.53 up to 1084.88 kW





Features

- Available in 17 different sizes
- **TRA from 50 up to 750 silenced and Inspection window standard**
- **TRA from 850 up to 1100 standard TRA from 850 up to 1100 silenced (L) All with inspection door to a crawl Series**
- Entirely built of fibre-glass reinforced resin to avoid corrosion problems with surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather
- Limited to the three largest sizes (TRA 850, 950 and 1100) the bearing structure is made of hot galvanised steel with 22mm thick fibreglass reinforced resin sandwich panels, with support foam material inside. In this way, as well achieving good mechanical strength the sound of the water flowing is muffled. Surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather.
- Self-bearing structure
- Exchange pack and drip separator made of self-extinguishing PVC
- PVC water distribution pipes with polypropylene nozzles
- Hydrometer (when there is not water flow rate measuring device, this instrument makes possible to have an approximate indication of the flow rate of the water in circulation based on the nozzle load drop)
- Plastic bleed cock
- Axial high efficiency fan with several blades
- Water drip pan, waterproof and water resistant made of fibreglass reinforced polyester resin with multi layer glass material
- Personal protection grill made of AISI 304 on the fan outlet

Accessories*

- **RT**: Heater element with regulating thermostat.

	Compatibility of accessories																
TRA	**50**	**70**	**90**	**110**	**130**	**170**	**200**	**240**	**300**	**400**	**500**	**550**	**600**	**750**	**850**	**950**	**1100**
RT 11 (1 kW)		•	•	•	•												
RT 12 (2 kW)						•	•	•	•								
RT 13 (3 kW)										•	•	•					
RT 15 (5 kW)													•	•	•	•	
RT 17 (7.5 kW)																	•

N.B. = In the case of RT accessories, the number between brackets indicates the capacity of the heater element.
* = All the accessories and/or variants must in all cases be specified when the order is placed.

Technical data

Mod. TRA		50	70	90	110	130	170	200	240	300
Capacity	kW	49,53	69,06	88,60	107,44	125,58	168,14	197,67	242,09	302,33
Air flow rate	m^3/h	4500	4500	8100	8100	8100	12600	12600	18100	18100
Water flow rate	l/h	7100	9900	12700	15400	18000	24100	28330	34700	43300
Pressure drops	kPa	42	32	52	32	42	28	35	23	40
Motor power	kW	0,55	0,75	0,75	0,75	1,1	1,1	1,5	1,5	2,2
Motor poles	n.	4	4	4	4	6	6	6	6	6
Motor poles (double polarity)	n.	4/8	4/8	4/8	4/8	6/12	6/12	6/8	6/8	6/8
Fans	n.	1	1	1	1	1	1	1	1	1
Nozzles	n.	1	1	1	1	1	1	1	4	4
Sound pressure	dB (A)	52	52	54	54	54	54	54	55	55

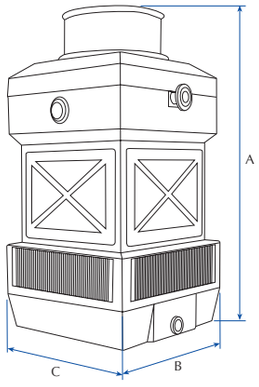
Mod. TRA		400	500	550	600	750	850	950	1100
Capacity	kW	405,35	488,37	574,19	604,88	767,44	856,74	941,86	1084,88
Air flow rate	m^3/h	28350	28350	36000	45350	45350	58000	58000	67000
Water flow rate	l/h	58100	70000	82300	86700	110000	122800	135000	155500
Pressure drops	kPa	28	40	55	30	48	49	25	32
Motor power	kW	2,2	4	5,5	4	5,5	5,5	5,5	7,5
Motor poles	n.	6	6	6	6	6	8	8	8
Motor poles (double polarity)	n.	6/8	6/12	6/12	6/12	8/16	8/16	8/16	8/16
Fans	n.	1	1	1	1	1	1	1	1
Nozzles	n.	4	4	4	9	9	16	16	16
Sound pressure	dB (A)	57	57	58	61	61	62	62	64
Sound pressure (silenced version)	dB (A)						56	56	57

*** = Sizes from 50 to 750 are only muted.**

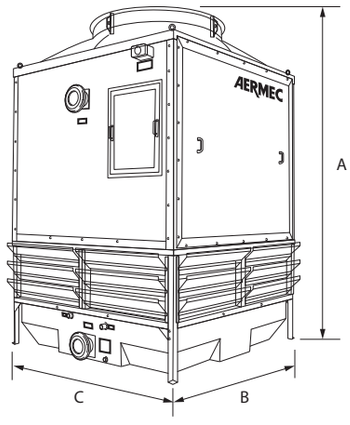
Power supply = 3~ 230V 50Hz; 3N~ 400V 50Hz.

Performance values refer to the following conditions:
Sound pressure measured in free field conditions at distance of 10 m with direction factor = 2.
- air inlet temperature 23.5 °C W.B.;
- water inlet temperature 35 °C;
- water outlet temperature 29 °C

Dimensions (mm)



TRA 50-750



TRA 850-1100
TRA 850L-1100L

Mod. TRA		50	70	90	110	130	170	200	240	300	400
Height	A	2110	2110	2595	2595	2595	2800	2800	2860	2860	3140
Width	B	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Depth	C	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Weight	kg	75	75	85	95	95	170	170	210	210	410

Mod. TRA		500	550	600	750	850	850L	950	950L	1100	1100L
Height	A	3140	3380	3450	3450	3650	3900	3650	3900	3650	3900
Width	B	1740	1900	2100	2100	2030	2030	2030	2030	2360	2360
Depth	C	1740	2100	2300	2300	2360	2360	2360	2360	2360	2360
Weight	kg	410	500	555	580	850	850	815	815	915	915

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Cod.: STRAUY.03 / 1211

CSE–CDR–CVR–CGA–CMV

Remote condensers



CSE CDR-CVR CGA

Features

CSE SERIES
General features
- Design has privileged modularity, each unit is made up from standard sections, whose elements can be easily removed.
- Starting from the CSE 563 for the ø 500 range, from the CSE 663 for the ø 630 range, there are models consisting of two side by side units, making vertical installation impossible.
  All the other models are designed both for horizontal and vertical installation.
- To facilitate the connection of the condensers to the electrical system, the fan motors are wired in the factory (excluding 350 diameter range) and connected to a junction box positioned on the collector side and protected along with the latter by a lid that can be easily removed.

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- Coils with staggered copper pipes and corrugated or mechanically expanded aluminium louvers. The coils are fixed to the shoulders in a way to prevent pipe breakage due to any vibrations.
- Copper collectors with welded connections, closed to prevent impurities and moisture from getting into the circuits.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: They are designed for Δ/Y connections and different polarities and allow continuous regulation of the speed via voltage reduction.

- **Available versions:**

(B) base
(S) silent
(E) Super silent.

CDR SERIES
General features
- Two exchangers positioned as V
- Two independent cooling circuits
- Two rows of fans with diameter of 800mm
- From 6 to 10 fans
- Separate ventilation compartments for each fan

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.

- **Available versions:**

(BT) base 6 poles
(ST) silent 8 poles
(ET) Super silent 12 poles

CVR SERIES
General features
- Two exchangers positioned as V
- Fans diameter 800 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied.

- **Available versions:**

(BT) base 6 poles
(ST) silent 8 poles
(ET) Super silent 12 poles

CGA SERIES
General features
- V exchangers configuration
- Low noise
- Two rows of fans with diameter of 800mm
- From 6 to 12 fans

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.

- **Available versions:**

(BT) standard
(ST) silent
(ET) super silent
(CT) Electronic switch-over with brushless motor

CMV SERIES
General features
- Configuration:Microchannel condensers for module
- 1 or 2 circuits
- Two rows of fans

Construction features
Made using technologies and materials that provide long-lasting weather resistance.
High efficiency finned pack heat exchangers, made with copper pipes and aluminium louvers. Next generation 800 mm diameter axial fans in both AC and EC version to minimise energy consumption. The standard units are supplied with the fans wired onto the junction box.

- **Available versions:**

(BTD): 6-pole with triangle connection
(BTY): 6-pole with star connection
(STD): 8-pole with triangle connection
(STY): 8-pole with star connection
(CTB): high power motorised EC fan
(CTE): low noise motorised EC fan

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WRL 026 E	1	R410A	8.0	CSEX3013BM°	1	8.56	66	34	37	AC	230V	standard	610	560	308
				CSEX3013CMS 990 [rpm]	1	8.06	57	26	29	EC	230V	standard	610	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	standard	1105	833	1060
				CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	standard	1105	833	1060
WRL 031 E	1	R410A	9.8	CSEX3014BM°	1	9.44	66	34	37	AC	230V	Standard	610	560	308
				CSEX3022SM°	1	11.95	59	27	30	AC	230V	Standard	1160	560	308
				CSEX3014CMS 1115 [rpm]	1	9.72	60	29	32	EC	230V	Standard	610	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	Standard	1105	833	1060
WRL 041 E	1	R410A	13.2	CSEX3022BM°	1	13.68	69	37	40	AC	230V	Standard	1160	560	308
				CSEX3022CMS 1050 [rpm]	1	13.48	62	30	33	EC	230V	Standard	1160	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	Standard	1105	833	1060
WRL 051 E	1	R410A	17.0	CSEX5013ETD	1	16.29	60	28	31	AC	400V	Standard	1105	833	1060
				CSEX5013STD	1	19.84	65	34	37	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 800 [rpm]	1	17.98	63	31	34	EC	400V	Standard	1105	833	1060
WRL 071 E	1	R410A	21.9	CSEX5013BTY	1	21.41	70	39	42	AC	400V	Standard	1105	833	1060
				CSEX5013BTD	1	25.75	76	45	48	AC	400V	Standard	1105	833	1060
				CSEX5014STD	1	22.18	65	34	37	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 1160 [rpm]	1	22.78	70	39	42	EC	400V	Standard	1105	833	1060
				CSEX5014CTB 920 [rpm]	1	22.09	65	34	37	EC	400V	Standard	1105	833	1060
WRL 081 E	1	R410A	25.0	CSEX5013BTD	1	25.75	76	45	48	AC	400V	Standard	1105	833	1060
				CSEX5015BTY	1	25.47	70	39	42	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 1380 [rpm]	1	25.23	74	43	46	EC	400V	Standard	1105	833	1060
				CSEX5014CTB 1160 [rpm]	1	26.13	70	39	42	EC	400V	Standard	1105	833	1060
				CSEX5015CTB 1040 [rpm]	1	25.96	68	37	40	EC	400V	Standard	1105	833	1060
WRL 101 E	1	R410A	34.0	CSEX6013BTD	1	35.16	74	43	46	AC	400V	Standard	1355	1033	1213
				CSEX6014BTY	1	34.8	69	38	41	AC	400V	Standard	1355	1033	1213
				CSEX5024STY	1	33.73	61	29	32	AC	400V	Standard	2045	833	1060
				CSEX5015CTB 1490 [rpm]	1	34.14	76	44	47	EC	400V	Standard	1105	833	1060
				CSEX5022CTB 1040 [rpm]	1	33.64	71	40	43	EC	400V	Standard	2045	833	1060
				CSEX5023CTB 800 [rpm]	1	36.65	66	34	37	EC	400V	Standard	2045	833	1060
WRL 141 E	1	R410A	43.8	CSEX5023BTY	1	43.75	73	42	45	AC	400V	Standard	2045	833	1060
				CSEX5024STD	1	45.27	68	37	40	AC	400V	Standard	2045	833	1060
				CSEX5023CTB 1160 [rpm]	1	46.47	73	42	45	EC	400V	Standard	2045	833	1060
				CSEX5023CTB 1040 [rpm]	1	43.4	71	40	43	EC	400V	Standard	2045	833	1060
				CSEX8013CTE 490 [rpm]	1	45.87	60	29	32	EC	400V	Standard	1883	1239	1338
WRL 161 E	1	R410A	50.0	CSEX5023BTD	1	52.58	79	48	51	AC	400V	Standard	2045	833	1060
				CSEX5025BTY	1	52.1	73	42	45	AC	400V	Standard	2045	833	1060
				CVSX5023STD	1	51.8	68	37	40	AC	400V	Standard	1519	778	1092
				CSEX5023CTB 1380 [rpm]	1	51.47	77	46	49	EC	400V	Standard	2045	833	1060
				CSEX5024CTB 1160 [rpm]	1	53.27	73	42	45	EC	400V	Standard	2045	833	1060
				CSEX5025CTB 1040 [rpm]	1	52.91	71	40	43	EC	400V	Standard	2045	833	1060
				CSEX8013CTE 550 [rpm]	1	50.15	63	31	34	EC	400V	Standard	1883	1239	1338
WRL 180 E	1	R410A	58.4	CSEX5024BTD	1	61.17	79	48	51	AC	400V	Standard	2045	833	1060
				CSEX6023STD	1	58.09	69	38	41	AC	400V	Standard	2290	1033	1213
				CVSX5033STY	1	59.17	62	31	34	AC	400V	Standard	2174	778	1092
				CSEX8013CTE 735 [rpm]	1	62.42	68	36	40	EC	400V	Standard	1883	1239	1338
				CSEX8013CTE 670 [rpm]	1	58.06	66	35	38	EC	400V	Standard	1883	1239	1338
WRL 200 E	1	R410A	76.1	CSEX6024BTD	1	81.45	77	46	49	AC	400V	Standard	2290	1033	1213
				CVSX5033STD	1	77.71	70	38	41	AC	400V	Standard	2174	778	1092
				CSEX6034STY	1	78.89	65	33	36	AC	400V	Standard	3450	1033	1213
				CSEX8013CTB 1020 [rpm]	1	78.94	79	48	51	EC	400V	Standard	1883	1239	1338
				CSEX8014CTB 880 [rpm]	1	80.23	76	44	47	EC	400V	Standard	1883	1239	1338
				CSEX8015CTB 810 [rpm]	1	79.51	74	43	46	EC	400V	Standard	1883	1239	1338
				CSEX1013CTS 610 [rpm]	1	78.91	73	41	44	EC	400V	Standard	2300	1259	1760
				CSEX1014CTB 510 [rpm]	1	76.69	71	39	42	EC	400V	Standard	2300	1259	1760
WRL 300 E	1	R410A	88.1	CSEX6025BTD	1	87.65	77	46	49	AC	400V	Standard	2290	1033	1213
				CSEX5034BTD	1	92.36	81	50	53	AC	400V	Standard	2985	833	1060
				CVSX5034BTY	1	93.27	75	43	46	AC	400V	Standard	2174	778	1092
				CSEX6033STD	1	87.57	71	39	42	AC	400V	Standard	3450	1033	1213
				CSEX8014CTB 1020 [rpm]	1	89.65	79	48	51	EC	400V	Standard	1883	1239	1338
				CSEX1013CTS 750 [rpm]	1	89.67	77	46	49	EC	400V	Standard	2300	1259	1760
				CSEX1014CTS 610 [rpm]	1	89.16	73	41	44	EC	400V	Standard	2300	1259	1760
				CSEX8023CTE 490 [rpm]	1	93.39	63	32	35	EC	400V	Standard	3548	1239	1338
WRL 400 E	1	R410A	99.9	CVSX5033BTD	1	105.12	81	50	53	AC	400V	Standard	2174	778	1092
				CSEX1013BTD	1	102.16	82	50	53	AC	400V	Standard	2300	1259	1760
				CSEX6033BTD	1	107.7	79	48	51	AC	400V	Standard	3450	1033	1213
				CSEX6034BTY	1	106.71	74	42	45	AC	400V	Standard	3450	1033	1213
				CSEX8023STY	1	105.82	66	34	37	AC	400V	Standard	3548	1239	1338
				CSEX1013CTB 960 [rpm]	1	102.42	85	53	56	EC	400V	Standard	2300	1259	1760
				CSEX1014CTS 750 [rpm]	1	103.21	77	46	49	EC	400V	Standard	2300	1259	1760
				CSEX8023CTE 550 [rpm]	1	102.12	66	34	37	EC	400V	Standard	3548	1239	1338
WRL 500 E	1	R410A	113.7	CVSX5034BTD	1	117.97	81	50	53	AC	400V	Standard	2174	778	1092
				CSEX6034BTD	1	122.79	79	48	51	AC	400V	Standard	3450	1033	1213
				CSEX8023STD	1	121	70	38	41	AC	400V	Standard	3548	1239	1338
				CVRX8023STY	1	122.19	66	34	37	AC	400V	Standard	2150	1100	1590
				CSEX1014CTB 885 [rpm]	1	113	83	51	54	EC	400V	Standard	2300	1259	1760
				CSEX8023CTE 670 [rpm]	1	118.23	69	38	41	EC	400V	Standard	3548	1239	1338

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WRL 550 E	1	R410A	150.9	CSEX8024BTD	1	167.5	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX6045BTY	1	150.69	75	44	47	AC	400V	Standard	4835	1033	1213
				CVRX8024STD	1	151.49	70	38	42	AC	400V	Standard	2150	1100	1590
				CSEX8033STY	1	159.43	68	36	39	AC	400V	Standard	5213	1239	1338
				CSEX6064STY	1	157.78	68	36	39	AC	400V	Standard	3450	2066	1213
				CSEX8023CTB 950 [rpm]	1	153.51	80	49	52	EC	400V	Standard	3548	1239	1338
				CSEX8024CTB 810 [rpm]	1	153.58	77	46	49	EC	400V	Standard	3548	1239	1338
				CVRX8024CTE 735 [rpm]	1	159.92	71	40	43	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 550 [rpm]	1	153.78	67	36	39	EC	400V	Standard	5213	1239	1338
WRL 600 E	1	R410A	174.3	CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 1020 [rpm]	1	182.64	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8023CTB 950 [rpm]	1	175.97	80	49	52	EC	400V	Standard	2150	1100	1590
				CVRX8024CTB 810 [rpm]	1	175.42	77	46	49	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
WRL 650 E	1	R410A	197.2	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6084STY	1	210.92	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1023CTB 960 [rpm]	1	207.56	88	56	59	EC	400V	Standard	4600	1259	1760
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 735 [rpm]	1	211.18	73	41	44	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 670 [rpm]	1	202.34	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 610 [rpm]	1	204.42	69	38	41	EC	400V	Standard	3120	1100	1590
				CSEX8043CTE 550 [rpm]	1	203.85	69	37	40	EC	400V	Standard	3548	2389	1338
NXW 0500 E	2	R410A	129.9	CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 1020 [rpm]	1	182.64	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8023CTB 950 [rpm]	1	175.97	80	49	52	EC	400V	Standard	2150	1100	1590
				CVRX8024CTB 810 [rpm]	1	175.42	77	46	49	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
NXW 0550 E	2	R410A	139.8	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6084STY	1	210.92	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1023CTB 960 [rpm]	1	207.56	88	56	59	EC	400V	Standard	4600	1259	1760
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 735 [rpm]	1	211.18	73	41	44	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 670 [rpm]	1	202.34	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 610 [rpm]	1	204.42	69	38	41	EC	400V	Standard	3120	1100	1590
				CSEX8043CTE 550 [rpm]	1	203.85	69	37	40	EC	400V	Standard	3548	2389	1338
NXW 0600 E	2	R410A	172.0	CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083ETD	1	171.61	65	33	36	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 950 [rpm]	1	173.23	80	49	52	EC	400V	Standard	3548	1239	1338
				CSEX1023CTS 680 [rpm]	1	171.06	78	46	49	EC	400V	Standard	4600	1259	1760
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
NXW 0650 E	2	R410A	192.9	CVRX8024BTD	1	192.81	80	48	51	AC	400V	Standard	2150	1100	1590
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8025CTB 1020 [rpm]	1	195.75	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 670 [rpm]	1	194.69	71	39	42	EC	400V	Standard	5213	1239	1338
				CSEX8043CTE 550 [rpm]	1	203.85	69	37	40	EC	400V	Standard	3548	2389	1338
				CSEX8044CTE 490 [rpm]	1	198.39	66	35	38	EC	400V	Standard	3548	2389	1338
NXW 0700 E	2	R410A	218.7	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CVRX8033BTY	1	222.27	76	45	48	AC	400V	Standard	3120	1100	1590
				CSEX8043STD	1	241.43	73	41	44	AC	400V	Standard	3548	2389	1338
				CVRX8034STD	1	227.24	72	40	43	AC	400V	Standard	3120	1100	1590
				CSEX8044STY	1	225.55	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6085STY	1	217.02	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1024CTS 820 [rpm]	1	222.22	82	50	53	EC	400V	Standard	4600	1259	1760
				CSEX8033CTB 880 [rpm]	1	219.04	80	49	52	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 735 [rpm]	1	221.13	73	41	44	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 670 [rpm]	1	221.05	71	39	42	EC	400V	Standard	3120	1100	1590
				CSEX8043CTE 610 [rpm]	1	220.12	70	38	41	EC	400V	Standard	3548	2389	1338
				CSEX8044CTE 550 [rpm]	1	219.13	69	37	40	EC	400V	Standard	3548	2389	1338

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
				CSEX8035BTD	1	267.24	82	50	53	AC	400V	Standard	5213	1239	1338
				CVRX8033BTD	1	258.39	82	50	53	AC	400V	Standard	3120	1100	1590
				CSEX8044STD	1	264.13	73	41	44	AC	400V	Standard	3548	2389	1338
				CSEX8063STY	1	318.86	71	39	42	AC	400V	Standard	5213	2389	1338
				CVRX8053STY	1	304.93	70	38	41	AC	400V	Standard	5060	1100	1590
NXW 0750 E	2	R410A	257.8	CSEX8034CTB 950 [rpm]	1	260.76	82	51	54	EC	400V	Standard	5213	1239	1338
				CSEX8035CTB 880 [rpm]	1	261.37	80	49	52	EC	400V	Standard	5213	1239	1338
				CVRX8034CTB 810 [rpm]	1	263.14	79	47	50	EC	400V	Standard	3120	1100	1590
				CSEX8044CTE 670 [rpm]	1	258.07	72	40	43	EC	400V	Standard	3548	2389	1338
				CVRX8044CTE 610 [rpm]	1	272.19	70	39	42	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 490 [rpm]	1	281.31	68	36	39	EC	400V	Standard	5213	2389	1338
				CSEX8043BTD	1	298.22	83	51	54	AC	400V	Standard	3548	2389	1338
				CVRX8044STD	1	302.52	73	42	45	AC	400V	Standard	4090	1100	1590
				CSEX8063STY	1	318.86	71	39	42	AC	400V	Standard	5213	2389	1338
				CVRX8053STY	1	304.93	70	38	41	AC	400V	Standard	5060	1100	1590
NXW 0800 E	2	R410A	297.5	CVRX8034CTB 950 [rpm]	1	297.17	82	51	54	EC	400V	Standard	3120	1100	1590
				CSEX8044CTB 810 [rpm]	1	306.51	80	48	51	EC	400V	Standard	3548	2389	1338
				CVRX8044CTE 735 [rpm]	1	319.31	74	43	46	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 550 [rpm]	1	307.55	71	39	42	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 490 [rpm]	1	299.33	68	36	39	EC	400V	Standard	5213	2389	1338
				CVRX8043BTD	1	343.61	83	51	54	AC	400V	Standard	4090	1100	1590
				CSEX8063STD	1	364.33	75	43	46	AC	400V	Standard	5213	2389	1338
				CVRX8063STY	1	365.93	71	39	42	AC	400V	Standard	6030	1100	1590
				CSEX8044CTB 950 [rpm]	1	345.61	83	51	54	EC	400V	Standard	3548	2389	1338
NXW 0900 E	2	R410A	337.7	CVRX8044CTB 810 [rpm]	1	350.2	80	49	52	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 670 [rpm]	1	355.94	74	42	45	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 610 [rpm]	1	360.3	72	40	43	EC	400V	Standard	5213	2389	1338
				CVRX8063CTE 550 [rpm]	1	348.69	71	39	42	EC	400V	Standard	6030	1100	1590
				CVRX8064CTE 490 [rpm]	1	339.43	68	37	40	EC	400V	Standard	6030	1100	1590
				CVRX8074CTE 430 [rpm]	1	352.81	66	35	38	EC	400V	Standard	7000	1100	1590
				CVRX8044BTD	1	384.82	83	51	54	AC	400V	Standard	4090	1100	1590
				CSEX8063BTY	1	383.85	79	47	50	AC	400V	Standard	5213	2389	1338
				CSEX8064STD	1	398.62	75	43	46	AC	400V	Standard	5213	2389	1338
				CVRX8064STY	1	392.47	71	39	42	AC	400V	Standard	6030	1100	1590
				CSEX8045CTB 1020 [rpm]	1	390.68	85	53	56	EC	400V	Standard	3548	2389	1338
NXW 1000 E	2	R410A	377.3	CVRX8044CTB 950 [rpm]	1	395.38	83	52	55	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 735 [rpm]	1	382.66	76	44	47	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 670 [rpm]	1	389.38	74	42	45	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 610 [rpm]	1	408.29	72	41	44	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 550 [rpm]	1	406.81	71	40	43	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 490 [rpm]	1	396	69	37	40	EC	400V	Standard	7000	1100	1590
				CDRX8103CTE 430 [rpm]	1	421.2	68	36	39	EC	400V	Standard	5060	2160	2150
				CSEX8063BTD	1	450.12	85	53	56	AC	400V	Standard	5213	2389	1338
				CVRX8053BTD	1	429.52	84	52	55	AC	400V	Standard	5060	1100	1590
				CSEX8064BTY	1	417.9	79	47	50	AC	400V	Standard	5213	2389	1338
				CVRX8063STD	1	413.42	75	43	46	AC	400V	Standard	6030	1100	1590
				CDRX8083STY	1	422.56	72	40	43	AC	400V	Standard	4090	2160	2150
				CSEX1063STY	1	432.63	75	43	46	AC	400V	Standard	6900	2431	1760
				CVRX8044CTB 1020 [rpm]	1	416.79	85	54	57	EC	400V	Standard	4090	1100	1590
NXW 1250 E	2	R410A	410.8	CVRX8053CTB 880 [rpm]	1	415.32	83	51	54	EC	400V	Standard	5060	1100	1590
				CSEX8063CTB 810 [rpm]	1	415.09	82	50	53	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 735 [rpm]	1	422.36	76	44	47	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 670 [rpm]	1	440.82	74	42	45	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 610 [rpm]	1	439.08	73	41	44	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 550 [rpm]	1	437.38	71	40	43	EC	400V	Standard	7000	1100	1590
				CMVX8081CTE 550 [rpm]	1	427.12	72	40	43	EC	400V	Microchannel	4640	2255	2000
				CDRX8103CTE 430 [rpm]	1	421.2	68	36	39	EC	400V	Standard	5060	2160	2150
				CSEX8063BTD	1	450.12	85	53	56	AC	400V	Standard	5213	2389	1338
				CVRX8054BTD	1	481.03	84	52	55	AC	400V	Standard	5060	1100	1590
				CVRX8064STD	1	452.95	75	43	46	AC	400V	Standard	6030	1100	1590
				CSEX1064STY	1	478.66	75	43	46	AC	400V	Standard	6900	2431	1760
				CVRX8053CTB 1020 [rpm]	1	459.88	86	55	58	EC	400V	Standard	5060	1100	1590
				CSEX8063CTB 950 [rpm]	1	461.88	85	53	56	EC	400V	Standard	5213	2389	1338
				CVRX8054CTB 880 [rpm]	1	465.13	83	51	54	EC	400V	Standard	5060	1100	1590
NXW 1400 E	2	R410A	445.3	CSEX8064CTB 810 [rpm]	1	462.5	82	50	53	EC	400V	Standard	5213	2389	1338
				CSEX8065CTB 740 [rpm]	1	452.14	80	48	51	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 735 [rpm]	1	477.47	76	44	47	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 670 [rpm]	1	470.08	75	43	46	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 610 [rpm]	1	476.33	73	41	44	EC	400V	Standard	7000	1100	1590
				CDRX8103CTE 490 [rpm]	1	467.18	70	39	42	EC	400V	Standard	5060	2160	2150
				CGAX1084CTS 330 [rpm]	1	461.61	69	37	40	EC	400V	Standard	5730	2448	2410
				CMVX8121CTE 370 [rpm]	1	455.52	66	34	37	EC	400V	Microchannel	6960	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSA 0701 E	1	R134a	204.0	CSE°8034BTD	1	217.29	82	50	53	AC	400V	Standard	5213	1239	1338
				CSE°8043STD	1	208.66	73	41	44	AC	400V	Standard	3548	2389	1338
				CVR°8043STY	1	212.35	69	37	40	AC	400V	Standard	4090	1100	1590
				CSE°1034STY	1	210.18	72	41	44	AC	400V	Standard	6900	1259	1760
				CSE°8033CTB 1020 [rpm]	1	205.49	84	53	56	EC	400V	Standard	5213	1239	1338
				CSE°1024CTB 960 [rpm]	1	207.83	88	56	59	EC	400V	Standard	4600	1259	1760
				CSE°8034CTB 880 [rpm]	1	212.14	80	49	52	EC	400V	Standard	5213	1239	1338
				CSE°8035CTB 810 [rpm]	1	211.47	79	47	50	EC	400V	Standard	5213	1239	1338
				CVR°8034CTE 735 [rpm]	1	208.49	73	41	44	EC	400V	Standard	3120	1100	1590
				CSE°8043CTE 670 [rpm]	1	204.09	72	40	43	EC	400V	Standard	3548	2389	1338
				CSE°8044CTE 610 [rpm]	1	207.59	70	38	41	EC	400V	Standard	3548	2389	1338
				CVR°8044CTE 550 [rpm]	1	217.21	69	37	40	EC	400V	Standard	4090	1100	1590
WSA 0801 E	1	R134a	239.0	CVR°8034BTD	1	250.3	82	50	53	AC	400V	Standard	3120	1100	1590
				CSE°8044BTY	1	239.9	78	46	49	AC	400V	Standard	3548	2389	1338
				CSE°8045STD	1	238.05	73	41	44	AC	400V	Standard	3548	2389	1338
				CVR°8053STY	1	265.44	70	38	41	AC	400V	Standard	5060	1100	1590
				CSE°8035CTB 950 [rpm]	1	240.31	82	51	54	EC	400V	Standard	5213	1239	1338
				CVR°8034CTB 880 [rpm]	1	242.26	80	49	52	EC	400V	Standard	3120	1100	1590
				CSE°8044CTE 735 [rpm]	1	242.63	74	42	45	EC	400V	Standard	3548	2389	1338
				CVR°8044CTE 670 [rpm]	1	255.94	72	41	44	EC	400V	Standard	4090	1100	1590
				CSE°8063CTE 490 [rpm]	1	244.99	68	36	39	EC	400V	Standard	5213	2389	1338
WSA 0901 E	1	R134a	266.0	CSE°8044BTD	1	287.85	83	51	54	AC	400V	Standard	3548	2389	1338
				CVR°8044STD	1	263.02	73	42	45	AC	400V	Standard	4090	1100	1590
				CSE°8063STY	1	276.9	71	39	42	AC	400V	Standard	5213	2389	1338
				CVR°8034CTB 1020 [rpm]	1	270.36	84	53	56	EC	400V	Standard	3120	1100	1590
				CSE°1033CTS 820 [rpm]	1	267.7	84	52	55	EC	400V	Standard	6900	1259	1760
				CSE°8044CTB 880 [rpm]	1	281.15	82	50	53	EC	400V	Standard	3548	2389	1338
				CVR°8043CTB 810 [rpm]	1	271.87	80	49	52	EC	400V	Standard	4090	1100	1590
				CVR°8044CTE 735 [rpm]	1	277.43	74	43	46	EC	400V	Standard	4090	1100	1590
				CSE°8063CTE 550 [rpm]	1	267.34	71	39	42	EC	400V	Standard	5213	2389	1338
				CVR°8063CTE 490 [rpm]	1	278.04	68	37	40	EC	400V	Standard	6030	1100	1590
				CVR°8073CTE 430 [rpm]	1	292.4	66	35	38	EC	400V	Standard	7000	1100	1590
WSA 1101 E	1	R134a	329.0	CVR°8044BTD	1	332.87	83	51	54	AC	400V	Standard	4090	1100	1590
				CSE°8063BTY	1	331.02	79	47	50	AC	400V	Standard	5213	2389	1338
				CSE°8064STD	1	346	75	43	46	AC	400V	Standard	5213	2389	1338
				CVR°8064STY	1	341.35	71	39	42	AC	400V	Standard	6030	1100	1590
				CSE°8045CTB 1020 [rpm]	1	336.73	85	53	56	EC	400V	Standard	3548	2389	1338
				CVR°8044CTB 950 [rpm]	1	341.68	83	52	55	EC	400V	Standard	4090	1100	1590
				CSE°8063CTE 735 [rpm]	1	330.05	76	44	47	EC	400V	Standard	5213	2389	1338
				CSE°8064CTE 670 [rpm]	1	338.14	74	42	45	EC	400V	Standard	5213	2389	1338
				CVR°8064CTE 610 [rpm]	1	355.13	72	41	44	EC	400V	Standard	6030	1100	1590
				CVR°8073CTE 550 [rpm]	1	354.41	71	40	43	EC	400V	Standard	7000	1100	1590
				CVR°8074CTE 490 [rpm]	1	343.97	69	37	40	EC	400V	Standard	7000	1100	1590
WSA 1402 E	2	R134a	408.0	CSE°8064BTD	1	434.57	85	53	56	AC	400V	Standard	5213	2389	1338
				CVR°8054BTD	1	416.09	84	52	55	AC	400V	Standard	5060	1100	1590
				CVR°8064BTY	1	419.68	79	48	51	AC	400V	Standard	6030	1100	1590
				CDR°8083STD	1	417.5	76	44	47	AC	400V	Standard	4090	2160	2150
				CSE°1064STY	1	420.36	75	43	46	AC	400V	Standard	6900	2431	1760
				CSE°8063CTB 1020 [rpm]	1	410.99	87	55	58	EC	400V	Standard	5213	2389	1338
				CVR°8054CTB 950 [rpm]	1	427.1	84	53	56	EC	400V	Standard	5060	1100	1590
				CSE°8064CTB 880 [rpm]	1	424.28	83	52	55	EC	400V	Standard	5213	2389	1338
				CSE°8065CTB 810 [rpm]	1	422.95	82	50	53	EC	400V	Standard	5213	2389	1338
				CVR°8064CTE 735 [rpm]	1	414.91	76	44	47	EC	400V	Standard	6030	1100	1590
				CVR°8073CTE 670 [rpm]	1	408.38	75	43	46	EC	400V	Standard	7000	1100	1590
				CVR°8074CTE 610 [rpm]	1	414.32	73	41	44	EC	400V	Standard	7000	1100	1590
				CDR°8104CTE 490 [rpm]	1	432.47	70	39	42	EC	400V	Standard	5060	2160	2150
				CGA°1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	Standard	7140	2448	2410
				CMV°8121CTE 430 [rpm]	1	449.88	69	37	40	EC	400V	Microchannel	6960	2255	2000
				CMV°8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
WSA 1602 E	2	R134a	478.0	CVR°8064BTD	1	495.49	85	53	56	AC	400V	Standard	6030	1100	1590
				CVR°8074BTY	1	489.63	80	49	52	AC	400V	Standard	7000	1100	1590
				CSE°1083STY	1	521.35	77	45	48	AC	400V	Standard	9200	2431	1760
				CSE°8065CTB 950 [rpm]	1	480.62	85	53	56	EC	400V	Standard	5213	2389	1338
				CVR°8064CTB 880 [rpm]	1	479.97	83	52	55	EC	400V	Standard	6030	1100	1590
				CVR°8074CTE 735 [rpm]	1	484.07	76	45	48	EC	400V	Standard	7000	1100	1590
				CDR°8103CTE 610 [rpm]	1	477.8	74	42	45	EC	400V	Standard	5060	2160	2150
				CDR°8104CTE 550 [rpm]	1	477.46	73	41	44	EC	400V	Standard	5060	2160	2150
				CGA°1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	Standard	7140	2448	2410
				CMV°8161CTE 370 [rpm]	1	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
WSA 1802 E	2	R134a	536.0	CSE°1063BTD	1	579.19	90	58	61	AC	400V	Standard	6900	2431	1760
				CVR°8074BTD	1	578.08	85	54	57	AC	400V	Standard	7000	1100	1590
				CSE°1084STY	1	561.32	77	45	48	AC	400V	Standard	9200	2431	1760
				CVR°8064CTB 1020 [rpm]	1	533.41	87	56	59	EC	400V	Standard	6030	1100	1590
				CSE°1063CTS 820 [rpm]	1	535.41	87	55	58	EC	400V	Standard	6900	2431	1760
				CVR°8074CTB 880 [rpm]	1	559.97	84	53	56	EC	400V	Standard	7000	1100	1590
				CDR°8084CTB 810 [rpm]	1	530.29	83	51	54	EC	400V	Standard	4090	2160	2150
				CDR°8103CTE 735 [rpm]	1	547.09	78	46	49	EC	400V	Standard	5060	2160	2150
				CDR°8104CTE 670 [rpm]	1	561.01	76	44	47	EC	400V	Standard	5060	2160	2150
				CGA°1103CTS 400 [rpm]	1	557.24	74	42	45	EC	400V	Standard	7140	2448	2410
				CGA°1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	Standard	8550	2448	2410
				CMV°8201CTE 320 [rpm]	1	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
				CSE°1064BTD	1	662.03	90	58	61	AC	400V	standard	6900	2431	1760
				CSE°1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CDR°8104BTY	1	598.96	82	50	53	AC	400V	standard	5060	2160	2150
				CMV°8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA°1084STY	1	578.49	77	45	48	AC	400V	standard	5730	2448	2410
				CVR°8074CTB 1020 [rpm]	1	622.31	88	56	59	EC	400V	standard	7000	1100	1590
WSA 2202 E	2	R134a	601.0	CDR°8084CTB 950 [rpm]	1	594.58	86	54	57	EC	400V	standard	4090	2160	2150
				CSE°1083CTS 680 [rpm]	1	628.76	84	52	55	EC	400V	standard	9200	2431	1760
				CDR°8104CTE 735 [rpm]	1	607.29	78	46	49	EC	400V	standard	5060	2160	2150
				CMV°8121CTE 610 [rpm]	1	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 430 [rpm]	1	599.84	70	38	41	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 370 [rpm]	1	660.2	68	36	39	EC	400V	Microchannel	11600	2255	2000
				CSE°1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV°8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA°1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTS 750 [rpm]	1	668.3	86	54	57	EC	400V	standard	9200	2431	1760
				CSE°1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
WSA 2202 E	2	R134a	671.0	CGA°1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTS 470 [rpm]	1	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 490 [rpm]	1	671.84	73	41	44	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 370 [rpm]	1	660.2	68	36	39	EC	400V	Microchannel	11600	2255	2000
				CSE°1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE°1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA°1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
WSA 2502 E	2	R134a	747.0	CSE°1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 960 [rpm]	1	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA°1084CTB 960 [rpm]	1	872.25	94	62	65	EC	400V	standard	5730	2448	2410
WSA 2802 E	2	R134a	835.0	CSE°1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	1	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE°8033BTD	1	192.26	82	50	53	AC	400V	standard	5213	1239	1338
				CSE°8034BTD	1	217.29	82	50	53	AC	400V	standard	5213	1239	1338
				CVR°8033BTY	1	192.56	76	45	48	AC	400V	standard	3120	1100	1590
				CSE°8043STD	1	208.66	73	41	44	AC	400V	standard	3548	2389	1338
				CVR°8034STD	1	197.63	72	40	43	AC	400V	standard	3120	1100	1590
				CVR°8043STY	1	212.35	69	37	40	AC	400V	standard	4090	1100	1590
				CSE°8045STY	1	198.79	69	37	40	AC	400V	standard	3548	2389	1338
WSB 0701 E	1	R134a	196.0	CSE°8033CTB 950 [rpm]	1	196.9	82	51	54	EC	400V	standard	5213	1239	1338
				CSE°1024CTS 820 [rpm]	1	190.66	82	50	53	EC	400V	standard	4600	1259	1760
				CSE°8035CTE 735 [rpm]	1	191.83	73	41	44	EC	400V	standard	5213	1239	1338
				CVR°8034CTE 670 [rpm]	1	192.29	71	39	42	EC	400V	standard	3120	1100	1590
				CSE°8043CTE 610 [rpm]	1	190.9	70	38	41	EC	400V	standard	3548	2389	1338
				CSE°8044CTE 550 [rpm]	1	190.64	69	37	40	EC	400V	standard	3548	2389	1338
				CVR°8043CTE 550 [rpm]	1	202.27	69	37	40	EC	400V	standard	4090	1100	1590
				CVR°8044CTE 490 [rpm]	1	196.34	66	35	38	EC	400V	standard	4090	1100	1590
				CSE°8035BTD	1	231.09	82	50	53	AC	400V	standard	5213	1239	1338
				CSE°8044STD	1	229.25	73	41	44	AC	400V	standard	3548	2389	1338
				CSE°6084STD	1	225.56	75	43	46	AC	400V	standard	4835	2066	1213
				CVR°8053STY	1	265.44	70	38	41	AC	400V	standard	5060	1100	1590
				CSE°8034CTB 1020 [rpm]	1	235.74	84	53	56	EC	400V	standard	5213	1239	1338
				CSE°8035CTB 950 [rpm]	1	240.31	82	51	54	EC	400V	standard	5213	1239	1338
WSB 0801 E	1	R134a	231.0	CSE°8035CTB 880 [rpm]	1	226.14	80	49	52	EC	400V	standard	5213	1239	1338
				CVR°8034CTB 810 [rpm]	1	228.32	79	47	50	EC	400V	standard	3120	1100	1590
				CSE°8044CTE 735 [rpm]	1	242.63	74	42	45	EC	400V	standard	3548	2389	1338
				CVR°8043CTE 670 [rpm]	1	233.78	72	41	44	EC	400V	standard	4090	1100	1590
				CSE°8045CTE 670 [rpm]	1	232.73	72	40	43	EC	400V	standard	3548	2389	1338
				CVR°8044CTE 610 [rpm]	1	236.82	70	39	42	EC	400V	standard	4090	1100	1590
				CSE°8063CTE 490 [rpm]	1	244.99	68	36	39	EC	400V	standard	5213	2389	1338

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSB 0901 E	1	R134a	260.0	CSE°8044BTD	1	287.85	83	51	54	AC	400V	standard	3548	2389	1338
				CVR°8043BTY	1	256.03	78	46	49	AC	400V	standard	4090	1100	1590
				CSE°8063STY	1	276.9	71	39	42	AC	400V	standard	5213	2389	1338
				CSE°1043STY	1	260.68	74	42	45	AC	400V	standard	9200	1259	1760
				CVR°8034CTB 950 [rpm]	1	256.95	82	51	54	EC	400V	standard	3120	1100	1590
				CSE°8044CTB 810 [rpm]	1	264.93	80	48	51	EC	400V	standard	3548	2389	1338
				CVR°8043CTB 740 [rpm]	1	255.76	78	47	50	EC	400V	standard	4090	1100	1590
				CVR°8044CTE 670 [rpm]	1	255.94	72	41	44	EC	400V	standard	4090	1100	1590
				CSE°8063CTE 550 [rpm]	1	267.34	71	39	42	EC	400V	standard	5213	2389	1338
				CSE°8064CTE 490 [rpm]	1	260.45	68	36	39	EC	400V	standard	5213	2389	1338
WSB 1101 E	1	R134a	324.0	CVR°8044BTD	1	332.87	83	51	54	AC	400V	standard	4090	1100	1590
				CSE°8064STD	1	346	75	43	46	AC	400V	standard	5213	2389	1338
				CVR°8064STY	1	341.35	71	39	42	AC	400V	standard	6030	1100	1590
				CSE°8045CTB 1020 [rpm]	1	336.73	85	53	56	EC	400V	standard	3548	2389	1338
				CVR°8044CTB 880 [rpm]	1	322.21	82	50	53	EC	400V	standard	4090	1100	1590
				CSE°8063CTE 735 [rpm]	1	330.05	76	44	47	EC	400V	standard	5213	2389	1338
				CSE°8064CTE 670 [rpm]	1	338.14	74	42	45	EC	400V	standard	5213	2389	1338
				CVR°8063CTE 610 [rpm]	1	327.47	72	41	44	EC	400V	standard	6030	1100	1590
				CVR°8064CTE 550 [rpm]	1	325.98	71	39	42	EC	400V	standard	6030	1100	1590
				CVR°8073CTE 490 [rpm]	1	324.38	69	37	40	EC	400V	standard	7000	1100	1590
WSB 1402 E	2	R134a	393.0	CSE°8064BTD	1	434.57	85	53	56	AC	400V	standard	5213	2389	1338
				CVR°8054BTD	1	416.09	84	52	55	AC	400V	standard	5060	1100	1590
				CVR°8064STD	1	393.82	75	43	46	AC	400V	standard	6030	1100	1590
				CVR°8053CTB 1020 [rpm]	1	393.81	86	55	58	EC	400V	standard	5060	1100	1590
				CSE°8063CTB 950 [rpm]	1	393.8	85	53	56	EC	400V	standard	5213	2389	1338
				CVR°8054CTB 880 [rpm]	1	402.76	83	51	54	EC	400V	standard	5060	1100	1590
				CSE°8064CTB 810 [rpm]	1	399.83	82	50	53	EC	400V	standard	5213	2389	1338
				CVR°8064CTE 735 [rpm]	1	414.91	76	44	47	EC	400V	standard	6030	1100	1590
				CVR°8073CTE 670 [rpm]	1	408.38	75	43	46	EC	400V	standard	7000	1100	1590
				CVR°8074CTE 610 [rpm]	1	414.32	73	41	44	EC	400V	standard	7000	1100	1590
				CDR°8103CTE 490 [rpm]	1	406.66	70	39	42	EC	400V	standard	5060	2160	2150
				CGA°1084CTS 330 [rpm]	1	401.99	69	37	40	EC	400V	standard	5730	2448	2410
				CMV°8121CTE 370 [rpm]	1	396.12	66	34	37	EC	400V	Microchannel	6960	2255	2000
				CMV°8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
WSB 1602 E	2	R134a	457.0	CSE°8065BTD	1	462.19	85	53	56	AC	400V	standard	5213	2389	1338
				CVR°8074STD	1	459.46	75	44	47	AC	400V	standard	7000	1100	1590
				CSE°1083STY	1	521.35	77	45	48	AC	400V	standard	9200	2431	1760
				CSE°8064CTB 1020 [rpm]	1	471.48	87	55	58	EC	400V	standard	5213	2389	1338
				CSE°8065CTB 880 [rpm]	1	452.28	83	52	55	EC	400V	standard	5213	2389	1338
				CVR°8064CTB 810 [rpm]	1	453.24	82	50	53	EC	400V	standard	6030	1100	1590
				CVR°8074CTE 735 [rpm]	1	484.07	76	45	48	EC	400V	standard	7000	1100	1590
				CDR°8103CTE 610 [rpm]	1	477.8	74	42	45	EC	400V	standard	5060	2160	2150
				CDR°8104CTE 550 [rpm]	1	477.46	73	41	44	EC	400V	standard	5060	2160	2150
				CGA°1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	standard	7140	2448	2410
				CMV°8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
WSB 1802 E	2	R134a	517.0	CVR°8073BTD	1	511.48	85	54	57	AC	400V	standard	7000	1100	1590
				CSE°1063BTY	1	517.58	86	54	57	AC	400V	standard	6900	2431	1760
				CSE°1083STY	1	521.35	77	45	48	AC	400V	standard	9200	2431	1760
				CVR°8064CTB 1020 [rpm]	1	533.41	87	56	59	EC	400V	standard	6030	1100	1590
				CVR°8073CTB 950 [rpm]	1	521.25	86	54	57	EC	400V	standard	7000	1100	1590
				CVR°8074CTB 810 [rpm]	1	528.79	83	51	54	EC	400V	standard	7000	1100	1590
				CDR°8103CTE 670 [rpm]	1	510.69	76	44	47	EC	400V	standard	5060	2160	2150
				CDR°8104CTE 610 [rpm]	1	519.84	74	42	45	EC	400V	standard	5060	2160	2150
				CGA°1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 370 [rpm]	1	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
WSB 2202 E	2	R134a	585.0	CSE°1063BTD	1	579.19	90	58	61	AC	400V	standard	6900	2431	1760
				CVR°8074BTD	1	578.08	85	54	57	AC	400V	standard	7000	1100	1590
				CDR°8104BTY	1	598.96	82	50	53	AC	400V	standard	5060	2160	2150
				CMV°8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CMV°8121STY	1	579.96	74	42	45	AC	400V	Microchannel	6960	2255	2000
				CSE°1063CTB 960 [rpm]	1	582.63	93	61	64	EC	400V	standard	6900	2431	1760
				CVR°8074CTB 950 [rpm]	1	592.68	86	54	57	EC	400V	standard	7000	1100	1590
				CSE°1083CTS 610 [rpm]	1	586.36	82	50	53	EC	400V	standard	9200	2431	1760
				CDR°8104CTE 735 [rpm]	1	607.29	78	46	49	EC	400V	standard	5060	2160	2150
				CGA°1103CTS 470 [rpm]	1	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 610 [rpm]	1	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 320 [rpm]	1	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
WSB 2202 E	2	R134a	652.0	CSE°1064BTD	1	662.03	90	58	61	AC	400V	standard	6900	2431	1760
				CSE°1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV°8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA°1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1064CTB 960 [rpm]	1	670.24	93	61	64	EC	400V	standard	6900	2431	1760
				CSE°1083CTS 750 [rpm]	1	668.3	86	54	57	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 810 [rpm]	1	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 610 [rpm]	1	646.72	82	50	53	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 670 [rpm]	1	657.96	77	45	48	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 490 [rpm]	1	671.84	73	41	44	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSB 2502 E	**2**	R134a	740.0	CSE°1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE°1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA°1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
				CGA°1083CTB 960 [rpm]	1	738.02	94	62	65	EC	400V	standard	5730	2448	2410
				CDR°8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
WSB 2802 E	2	R134a	824.0	CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 550 [rpm]	1	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
				CMV°8201CTB 460 [rpm]	1	810	75	43	46	EC	400V	Microchannel	11600	2255	2000
				CMV°8121CTE 430 [rpm]	2	449.88	69	37	40	EC	400V	Microchannel	6960	2255	2000
				CMV°8161CTE 320 [rpm]	2	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
WF 2512 E	2	R134a	690.0	CSE°1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV°8121BTY	1	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CGA°1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTS 820 [rpm]	1	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 880 [rpm]	1	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
WF 2812 E	2	R134a	786.0	CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1084BTY	1	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR°8104CTB 1020 [rpm]	1	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 820 [rpm]	1	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CMV°8121CTB 810 [rpm]	1	780.6	85	53	56	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CMV°8201CTB 460 [rpm]	1	810	75	43	46	EC	400V	Microchannel	11600	2255	2000
WF 3212 E	2	R134a	943.0	CGA°1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA°1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8161BTY	1	956	84	52	55	AC	400V	Microchannel	9280	2255	2000
				CGA°1103CTB 885 [rpm]	1	944.34	93	61	64	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 680 [rpm]	1	983.49	86	54	57	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 735 [rpm]	1	952	80	48	51	EC	400V	Microchannel	9280	2255	2000
				CGA°1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
WF 3612 E	2	R134a	1063.0	CGA°1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CGA°1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1104CTB 885 [rpm]	1	1077.46	93	61	64	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 820 [rpm]	1	1104.56	90	58	61	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CGA°1103CTS 400 [rpm]	2	557.24	74	42	45	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
WF 4212 E	2	R134a	1201.0	CGA°1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CGA°1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CGA°1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 740 [rpm]	1	1215.2	85	53	56	EC	400V	Microchannel	11600	2255	2000
				CVR°8074CTB 1020 [rpm]	2	622.31	88	56	59	EC	400V	standard	7000	1100	1590
				CSE°1064CTS 820 [rpm]	2	606.67	87	55	58	EC	400V	standard	6900	2431	1760
				CSE°1083CTS 680 [rpm]	2	628.76	84	52	55	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 740 [rpm]	2	619.52	82	50	53	EC	400V	standard	5060	2160	2150
				CGA°1103CTS 470 [rpm]	2	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 400 [rpm]	2	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 320 [rpm]	2	600	68	36	39	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WF 4812 E	2	R134a	1356.0	CGA°1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CMV°8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA°1124CTB 960 [rpm]	1	1379.45	96	64	67	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 880 [rpm]	1	1376.8	89	57	60	EC	400V	Microchannel	11600	2255	2000
				CDR°8104CTB 880 [rpm]	2	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CGA°1103CTB 585 [rpm]	2	728.78	84	52	55	EC	400V	standard	7140	2448	2410
				CMV°8121CTB 740 [rpm]	2	729.12	83	51	54	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTB 510 [rpm]	2	715.33	81	49	52	EC	400V	standard	7140	2448	2410
				CGA°1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTB 530 [rpm]	2	736	77	45	48	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000
WF 5612 E	2	R134a	1521.0	CSE°1084BTY	2	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA°1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CGA°1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV°8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
WF 6412 E	2	R134a	1673.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1124STY	2	876.48	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
WF 2512 AE	2	R134a	728.0	CSE°1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE°1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA°1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
WF 2812 AE	2	R134a	827.0	CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	1	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
WF 3212 AE	2	R134a	995.0	CGA°1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1103CTB 960 [rpm]	1	997.39	95	63	66	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 820 [rpm]	1	1044.74	89	57	60	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 750 [rpm]	1	1046.28	88	56	59	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
WF 3612 AE	2	R134a	1120.0	CGA°1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CMV°8161BTD	1	1133.28	89	57	60	AC	400V	Microchannel	9280	2255	2000
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1104CTB 960 [rpm]	1	1149.54	95	63	66	EC	400V	standard	7140	2448	2410
				CGA°1123CTB 885 [rpm]	1	1133.21	94	62	65	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 750 [rpm]	1	1176.65	88	56	59	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 735 [rpm]	1	1190	81	49	52	EC	400V	Microchannel	11600	2255	2000
				CDR°8104CTE 670 [rpm]	2	561.01	76	44	47	EC	400V	standard	5060	2160	2150
				CMV°8121CTE 610 [rpm]	2	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTS 400 [rpm]	2	585.06	74	42	45	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
WF 4212 AE	2	R134a	1264.0	CGA°1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CMV°8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA°1124CTB 885 [rpm]	1	1292.95	94	62	65	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 810 [rpm]	1	1301	87	55	58	EC	400V	Microchannel	11600	2255	2000
				CDR°8104CTB 810 [rpm]	2	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CGA°1103CTB 510 [rpm]	2	663.65	81	49	52	EC	400V	standard	7140	2448	2410
				CGA°1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTB 460 [rpm]	2	648	74	42	45	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WF 4812 AE	2	R134a	1428.0	CSE°1083BTD	2	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CDR°8104BTD	2	719.42	87	55	58	AC	400V	standard	5060	2160	2150
				CMV°8121BTY	2	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CMV°8201CTB 950 [rpm]	1	1452	90	58	61	EC	400V	Microchannel	11600	2255	2000
				CSE°1083CTB 885 [rpm]	2	723.13	92	60	63	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 950 [rpm]	2	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 750 [rpm]	2	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 470 [rpm]	2	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
WF 5612 AE	2	R134a	1559.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1084BTY	2	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR°8104CTB 1020 [rpm]	2	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
WF 6412 AE	2	R134a	1728.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CGA°1103BTY	2	894.53	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8161STD	2	900.8	79	47	50	AC	400V	Microchannel	9280	2255	2000
				CSE°1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 680 [rpm]	2	912.52	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 610 [rpm]	2	916.4	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 550 [rpm]	2	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
HWF 2512 E	2	R134a	681.0	CSE°1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV°8121BTY	1	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CGA°1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTS 820 [rpm]	1	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 880 [rpm]	1	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA°1124CTS 400 [rpm]	1	702.08	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
HWF 2812 E	2	R134a	776.0	CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1084BTY	1	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR°8104CTB 1020 [rpm]	1	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 820 [rpm]	1	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
HWF 3212 E	2	R134a	915.0	CGA°1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA°1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8161BTY	1	956	84	52	55	AC	400V	Microchannel	9280	2255	2000
				CGA°1103CTS 820 [rpm]	1	920.47	89	57	60	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 610 [rpm]	1	916.4	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 735 [rpm]	1	952	80	48	51	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 550 [rpm]	1	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
HWF 3612 E	2	R134a	1028.0	CGA°1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CGA°1123BTY	1	1073.43	89	57	60	AC	400V	standard	8550	2448	2410
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1104CTS 820 [rpm]	1	1044.74	89	57	60	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 750 [rpm]	1	1046.28	88	56	59	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CDR°8103CTE 735 [rpm]	2	547.09	78	46	49	EC	400V	standard	5060	2160	2150
				CDR°8104CTE 610 [rpm]	2	519.84	74	42	45	EC	400V	standard	5060	2160	2150
				CGA°1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 370 [rpm]	2	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
HWF 4212 E	2	R134a	1193.0	CGA°1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CMV°8201BTY	1	1195	85	53	56	AC	400V	Microchannel	11600	2255	2000
				CGA°1123CTB 960 [rpm]	1	1196.86	96	64	67	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 740 [rpm]	1	1215.2	85	53	56	EC	400V	Microchannel	11600	2255	2000
				CSE°1083CTS 680 [rpm]	2	628.76	84	52	55	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 740 [rpm]	2	619.52	82	50	53	EC	400V	standard	5060	2160	2150
				CGA°1103CTS 470 [rpm]	2	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 400 [rpm]	2	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 320 [rpm]	2	600	68	36	39	EC	400V	Microchannel	11600	2255	2000
HWF 4812 E	2	R134a	1348.0	CSE°1083BTY	2	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV°8121STD	2	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA°1103STY	2	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CGA°1124CTB 960 [rpm]	1	1379.45	96	64	67	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 880 [rpm]	1	1376.8	89	57	60	EC	400V	Microchannel	11600	2255	2000
				CSE°1083CTS 820 [rpm]	2	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 880 [rpm]	2	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 680 [rpm]	2	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 540 [rpm]	2	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTS 470 [rpm]	2	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CMV°8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA°1104CTS 470 [rpm]	2	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CMV°8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA°1124CTS 400 [rpm]	2	702.08	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
HWF 5612 E	2	R134a	1543.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1084BTY	2	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CMV°8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CDR°8104CTB 1020 [rpm]	2	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
HWF 6412 E	2	R134a	1651.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 885 [rpm]	2	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
HWF 2512 AE	2	R134a	720.0	CSE°1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE°1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA°1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE°1083CTB 885 [rpm]	1	723.13	92	60	63	EC	400V	standard	9200	2431	1760
				CDR°8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE°1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
HWF 2812 AE	2	R134a	819.0	CSE°1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE°1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
HWF 3212 AE	2	R134a	970.0	CGA°1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA°1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1103CTB 960 [rpm]	1	997.39	95	63	66	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 680 [rpm]	1	983.49	86	54	57	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
				CMV°8121CTE 490 [rpm]	2	503.88	71	39	42	EC	400V	Microchannel	6960	2255	2000
				CGA°1104CTS 330 [rpm]	2	494.94	70	38	41	EC	400V	standard	7140	2448	2410
				CMV°8161CTE 370 [rpm]	2	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000

Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
HWF 3612 AE	2	R134a	1087.0	CGA°1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CMV°8161BTD	1	1133.28	89	57	60	AC	400V	Microchannel	9280	2255	2000
				CMV°8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA°1104CTB 960 [rpm]	1	1149.54	95	63	66	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 820 [rpm]	1	1104.56	90	58	61	EC	400V	standard	8550	2448	2410
				CGA°1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CDR°8103CTE 735 [rpm]	2	547.09	78	46	49	EC	400V	standard	5060	2160	2150
				CDR°8104CTE 670 [rpm]	2	561.01	76	44	47	EC	400V	standard	5060	2160	2150
				CGA°1103CTS 400 [rpm]	2	557.24	74	42	45	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV°8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
HWF 4212 AE	2	R134a	1260.0	CGA°1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CMV°8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA°1124CTB 885 [rpm]	1	1292.95	94	62	65	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 810 [rpm]	1	1301	87	55	58	EC	400V	Microchannel	11600	2255	2000
				CDR°8104CTB 810 [rpm]	2	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CGA°1103CTB 510 [rpm]	2	663.65	81	49	52	EC	400V	standard	7140	2448	2410
				CGA°1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CGA°1124CTB 360 [rpm]	2	630.16	74	42	45	EC	400V	standard	8550	2448	2410
				CMV°8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000
HWF 4812 AE	2	R134a	1423.0	CSE°1083BTD	2	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CDR°8104BTD	2	719.42	87	55	58	AC	400V	standard	5060	2160	2150
				CMV°8121BTY	2	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CMV°8201CTB 950 [rpm]	1	1452	90	58	61	EC	400V	Microchannel	11600	2255	2000
				CSE°1084CTS 750 [rpm]	2	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV°8121CTE 735 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA°1123CTS 470 [rpm]	2	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
HWF 5612 AE	2	R134a	1583.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV°8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA°1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CMV°8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CSE°1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
HWF 6412 AE	2	R134a	1704.0	CSE°1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CGA°1103BTY	2	894.53	88	56	59	AC	400V	standard	7140	2448	2410
				CMV°8161STD	2	900.8	79	47	50	AC	400V	Microchannel	9280	2255	2000
				CSE°1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA°1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA°1104CTS 680 [rpm]	2	912.52	85	53	56	EC	400V	standard	7140	2448	2410
				CGA°1123CTS 610 [rpm]	2	916.4	84	52	55	EC	400V	standard	8550	2448	2410
				CMV°8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV°8201CTE 550 [rpm]	2	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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WTE – WTR – WDR – WTS – WTA

Dry coolers



WTE



WTR-WDR



WTS



WTA

Features

WTE RANGE
General features
- Design has privileged modularity, each unit is made up from standard sections, whose elements can be easily removed
- Parting from the WTE 563 for the ø 500 range, from the WTE 663 for the ø 630 range, models are found that are made up from two flanked units, thus making vertical installation impossible.
  All of the other models are designed for both horizontal and vertical installation. The support feet supplied can be used in both cases.
- To ease the connection of the electric system chillers, the fan motors are wired in the factory (excluding 350 diameter range) and connected to a junction box positioned on the collectors side and protected along with the latter by a lid that can be easily removed.

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- Coils with staggered copper pipes and corrugated or mechanically expanded aluminium louvers. The coils are fixed to the shoulders in a way to prevent pipe breakage due to any vibrations.
- Iron collectors with GAS threading.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: They are envisioned for D/Y connections and different polarities and allow continuous regulation of the speed via voltage reduction.
- Available versions:

(B) basic
(S) silent
(E) Super silent.

WTA RANGE
General features
- Two exchangers positioned as W
- Two independent cooling circuits
- Two rows of fans with diameter of 800mm
- From 4 to 16 fans
- Separate ventilation compartments for each fan

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.
- Available versions:

(BT) basic 6-pole
(ST) silent 8-pole
(ET) Super silent 1**2-pole**

WTR RANGE
General features
- V exchangers configuration
- Two independent cooling circuits
- Low noise
- Two rows of fans with diameter of 800mm
- From 4 to 10 fans

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.
- Available versions:

(BT) basic 6-pole
(ST) silent 8-pole
(ET) Super silent 12-pole

WTS RANGE
General features
- Two exchangers positioned as V
- Fans diameter 500 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating. The standard units are supplied with fans wired on junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied
- Available versions:

(BT) basic 4-pole
(ST) silent 6-pole
(ET) Super silent 8-pole

WTR RANGE
General features
- Two exchangers positioned as V
- Fans diameter 800 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

Construction features
- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied
- Available versions:

(BT) basic 6-pole
(ST) silent 8-pole
(ET) Super silent 12-pole

Choosing the unit

Field configuration:

1 2 3	4	5	6 7	8	9	10	11
Code	Fluido	ø[dm] fans	n° fans	n° rows	motor Type	Power supply	Electrical connection

Code:
WTS-WTE-WTR-WTA-WDR

Fluido:
° - Acqua o acqua glicolata con PS max 6 bar

ø[dm] fans:
3 - 350
5 - 500
6 - 630
8 - 800
9 - 910

N° fans:
* - up 1 to 16

N° rows:
* - up 1to 6

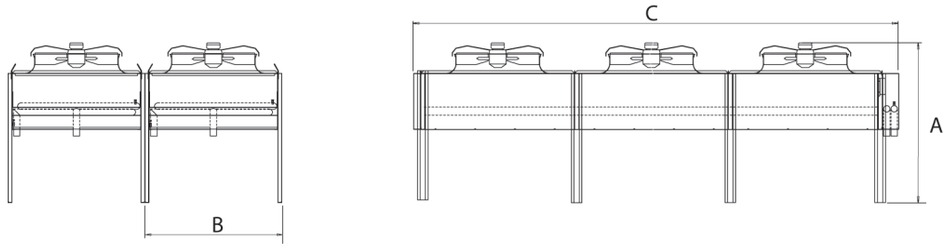
Motor type:
B - Standard
S - Silenced
E - Extra silenced

Power suppluy:
T - 400V/3/50Hz
M - 230V/1/ 50Hz

Electrical connection:
D - Triangle
° - mono-phase

Technical and dimensional data

WTE

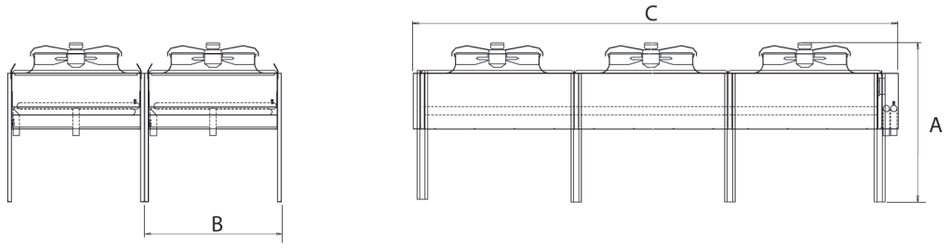


Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm] A	B	C
WTE°0312BM	Monophase	3	1	2	2.500	4,6	36	820	620	760
WTE °0313BM	Monophase	3	1	3	2.200	6	36	820	620	760
WTE°0314BM	Monophase	3	1	4	2400	7,4	36	820	620	760
WTE°0322BM	Monophase	3	2	3	5000	9,2	39	820	620	1310
WTE°0323BM	Monophase	3	2	3	4400	12	39	820	620	1310
WTE°0324BM	Monophase	3	2	4	4800	15	39	820	620	1310
WTE°0332BM	Monophase	3	3	2	7500	14	41	820	620	1860
WTE°0333BM	Monophase	3	3	3	6600	18	41	820	620	1860
WTE°0334BM	Monophase	3	3	4	7200	22	41	820	620	1860
WTE°0342BM	Monophase	3	4	2	10000	18	42	820	1200	1310
WTE°0343BM	Monophase	3	4	3	8800	24	42	820	1200	1310
WTE°0344BM	Monophase	3	4	4	9600	30	42	820	1200	1310
WTE°0362BM	Monophase	3	6	2	15000	28	44	820	1200	1860
WTE°0363BM	Monophase	3	6	3	13200	38	44	820	1200	1860
WTE°0364BM	Monophase	3	6	4	14400	47	44	820	1200	1860
WTE°0312SM	Monophase	3	1	2	1500	3,6	26	820	620	760
WTE°0313SM	Monophase	3	1	3	1300	4,4	26	820	620	760
WTE°0314SM	Monophase	3	1	4	1400	5	26	820	620	760
WTE°0322SM	Monophase	3	2	3	3000	7,4	29	820	620	1310
WTE°0323SM	Monophase	3	2	3	2600	9	29	820	620	1310
WTE°0324SM	Monophase	3	2	4	2800	10	29	820	620	1310
WTE°0332SM	Monophase	3	3	2	4500	11	31	820	620	1860
WTE°0333SM	Monophase	3	3	3	3900	14	31	820	620	1860
WTE°0334SM	Monophase	3	3	4	4200	16	31	820	620	1860
WTE°0342SM	Monophase	3	4	2	6000	15	32	820	1200	1310
WTE°0343SM	Monophase	3	4	3	5200	18	32	820	1200	1310
WTE°0344SM	Monophase	3	4	4	5600	20	32	820	1200	1310
WTE°0362SM	Monophase	3	6	2	9000	24	34	820	1200	1860
WTE°0363SM	Monophase	3	6	3	7800	28	34	820	1200	1860
WTE°0364SM	Monophase	3	6	4	8400	32	34	820	1200	1860
WTE°0513 BT	triangle	5	1	3	7750	17	48	1060	833	1105
WTE°0514 BT	triangle	5	1	4	7400	20	48	1060	833	1105
WTE°0515 BT	triangle	5	1	5	7100	23	48	1060	833	1105
WTE°0522 BT	triangle	5	2	2	16000	26	51	1060	833	2045
WTE°0523 BT	triangle	5	2	3	15500	35	51	1060	833	2045

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

WTE



WTE°0524 BT	triangle	5	2	4	14800	42	51	1060	833	2045
Model WTE	**wiring connec.**	**ø Fans**	**Fan**	**Rows**	**air flow rate**	**Power**	**Sound pressure**		**Dimensions [mm]**	
		[dm]	**[n°]**	**[n°]**	**[m3/h]**	**[kW]**	**dB(A)**	**A**	**B**	**C**
WTE°0525BT	triangle	5	2	5	14200	47	51	1060	833	2045
WTE°0533BT	triangle	5	3	3	23250	54	53	1060	833	2985
WTE°0534BT	triangle	5	3	4	22200	63	53	1060	833	2985
WTE°0535BT	triangle	5	3	5	21300	70	53	1060	833	2985
WTE°0543BT	triangle	5	4	3	31000	71	54	1060	833	3925
WTE°0544BT	triangle	5	4	4	29600	83	54	1060	833	3925
WTE°0545BT	triangle	5	4	5	28400	96	54	1060	833	3925
WTE°0563BT	triangle	5	6	3	46500	108	56	1060	833	2985
WTE°0564BT	triangle	5	6	4	44400	126	56	1060	833	2985
WTE°0565BT	triangle	5	6	5	42600	140	56	1060	833	2985
WTE°0583BT	triangle	5	8	3	62000	142	57	1060	833	3925
WTE°0584BT	triangle	5	8	4	59200	166	57	1060	833	3925
WTE°0585BT	triangle	5	8	5	56800	192	57	1060	833	3925
WTE°0513ST	triangle	5	1	3	5100	13	38	1060	833	1105
WTE°0514ST	triangle	5	1	4	4850	11	38	1060	833	1105
WTE°0515ST	triangle	5	1	5	4600	17	38	1060	833	1105
WTE°0522ST	triangle	5	2	2	10650	21	41	1060	833	2045
WTE°0523ST	triangle	5	2	3	10200	27	41	1060	833	2045
WTE°0524ST	triangle	5	2	4	9700	32	41	1060	833	2045
WTE°0525ST	triangle	5	2	5	9200	34	41	1060	833	2045
WTE°0533ST	triangle	5	3	3	15300	41	43	1060	833	2985
WTE°0534ST	triangle	5	3	4	14550	48	43	1060	833	2985
WTE°0535ST	triangle	5	3	5	13800	52	43	1060	833	2985
WTE°0543ST	triangle	5	4	3	20400	56	44	1060	833	3925
WTE°0544ST	triangle	5	4	4	19400	64	44	1060	833	3925
WTE°0545ST	triangle	5	4	5	18400	69	44	1060	833	3925
WTE°0563ST	triangle	5	6	3	30600	82	46	1060	833	2985
WTE°0564ST	triangle	5	6	4	29100	96	46	1060	833	2985
WTE°0565ST	triangle	5	6	5	27600	104	46	1060	833	2985
WTE°0583ST	triangle	5	8	3	40800	112	47	1060	833	3925
WTE°0584ST	triangle	5	8	4	38800	129	47	1060	833	3925
WTE°0585ST	triangle	5	8	5	36800	139	47	1060	833	3925
WTE°0513ET	triangle	5	1	3	3350	10	32	1060	833	1105
WTE°0514ET	triangle	5	1	4	3200	11	32	1060	833	1105
WTE°0515ET	triangle	5	1	5	3000	12	32	1060	833	1105
WTE°0522ET	triangle	5	2	2	7300	17	35	1060	833	2045
WTE°0523ET	triangle	5	2	3	6700	21	35	1060	833	2045
WTE°0524ET	triangle	5	2	4	6400	24	35	1060	833	2045
WTE°0525ET	triangle	5	2	5	6000	25	35	1060	833	2045
WTE°0533ET	triangle	5	3	3	10050	31	37	1060	833	2985
WTE°0534ET	triangle	5	3	4	9600	36	37	1060	833	2985
WTE°0535ET	triangle	5	3	5	9000	38	37	1060	833	2985
WTE°0543ET	triangle	5	4	3	13400	42	38	1060	833	3925
WTE°0544ET	triangle	5	4	4	12800	48	38	1060	833	3925
WTE°0545ET	triangle	5	4	5	12000	50	38	1060	833	3925
WTE°0563ET	triangle	5	6	3	20100	63	40	1060	833	2985
WTE°0564ET	triangle	5	6	4	19200	72	40	1060	833	2985
WTE°0565ET	triangle	5	6	5	18000	75	40	1060	833	2985
WTE°0583ET	triangle	5	8	3	26800	84	41	1060	833	3925
WTE°0584ET	triangle	5	8	4	25600	97	41	1060	833	3925
WTE°0585ET	triangle	5	8	5	24000	100	41	1060	833	3925
WTE°0513BM	Monophase	5	1	3	7360	16	45	1060	833	1105
WTE°0514BM	Monophase	5	1	4	7030	20	45	1060	833	1105
WTE°0515BM	Monophase	5	1	5	6745	22	45	1060	833	1105
WTE°0522BM	Monophase	5	5	5	15200	26	48	1060	833	2045
WTE°0523BM	Monophase	5	2	3	14720	34	48	1060	833	2045
WTE°0524BM	Monophase	5	2	4	14060	41	48	1060	833	2045
WTE°0525BM	Monophase	5	2	5	13490	45	48	1060	833	2045
WTE°0533BM	Monophase	5	3	3	22080	52	50	1060	833	2985

The performance refers to the following conditions:

e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

Technical and dimensional data

Model WTE	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTE°0534BM	Monophase	5	3	4	21090	61	50	1060	833	2985
WTE°0535BM	Monophase	5	3	5	20235	67	50	1060	833	2985
WTE°0543BM	Monophase	5	4	3	29440	69	51	1060	833	3925
WTE°0544BM	Monophase	5	4	4	28120	80	51	1060	833	3925
WTE°0545BM	Monophase	5	4	5	26980	92	51	1060	833	3925
WTE°0563BM	Monophase	5	6	3	44160	104	53	1060	833	2985
WTE°0564BM	Monophase	5	6	4	42180	122	53	1060	833	2985
WTE°0565BM	Monophase	5	6	5	40470	135	53	1060	833	2985
WTE°0583BM	Monophase	5	8	3	58880	137	54	1060	833	3925
WTE°0584BM	Monophase	5	8	4	56240	160	54	1060	833	3925
WTE°0585BM	Monophase	5	8	5	53960	185	54	1060	833	3925
WTE°0513SM	Monophase	5	1	3	5000	13	35	1060	833	1105
WTE°0514SM	Monophase	5	1	4	4750	15	35	1060	833	1105
WTE°0515SM	Monophase	5	1	5	4510	17	35	1060	833	1105
WTE°0522SM	Monophase	5	2	2	10440	21	38	1060	833	2045
WTE°0523SM	Monophase	5	2	3	10000	27	38	1060	833	2045
WTE°0524SM	Monophase	5	2	4	9500	31	38	1060	833	2045
WTE°0525SM	Monophase	5	2	5	9020	34	38	1060	833	2045
WTE°0533SM	Monophase	5	3	3	15000	40	40	1060	833	2985
WTE°0534SM	Monophase	5	3	4	14250	47	40	1060	833	2985
WTE°0535SM	Monophase	5	3	5	15350	51	40	1060	833	2985
WTE°0543SM	Monophase	5	4	3	20000	55	41	1060	833	3925
WTE°0544SM	Monophase	5	4	4	19000	65	41	1060	833	3925
WTE°0545SM	Monophase	5	4	5	18040	68	41	1060	833	3925
WTE°0563SM	Monophase	5	6	3	30000	80	43	1060	833	2985
WTE°0564SM	Monophase	5	6	4	28500	95	43	1060	833	2985
WTE°0565SM	Monophase	5	6	5	27060	102	43	1060	833	2985
WTE°0583SM	Monophase	5	8	3	40000	111	44	1060	833	3925
WTE°0584SM	Monophase	5	8	4	38000	127	44	1060	833	3925
WTE°0585SM	Monophase	5	8	5	36080	136	44	1060	833	3925
WTE°0513 EM	Monophase	5	1	3	3720	11	32	1060	833	1105
WTE°0514 EM	Monophase	5	1	4	3550	12	32	1060	833	1105
WTE°0515 EM	Monophase	5	1	5	3330	13	32	1060	833	1105
WTE°0522 EM	Monophase	5	2	2	8100	18	35	1060	833	2045
WTE°0523 EM	Monophase	5	2	3	7440	22	35	1060	833	2045
WTE°0524 EM	Monophase	5	2	4	7100	25	35	1060	833	2045
WTE°0525 EM	Monophase	5	2	5	6660	27	35	1060	833	2045
WTE°0533 EM	Monophase	5	3	3	11160	34	37	1060	833	2985
WTE°0534 EM	Monophase	5	3	4	10650	38	37	1060	833	2985
WTE°0535 EM	Monophase	5	3	5	9990	41	37	1060	833	2985
WTE°0543 EM	Monophase	5	4	3	14880	45	38	1060	833	3925
WTE°0544 EM	Monophase	5	4	4	14200	51	38	1060	833	3925
WTE°0545 EM	Monophase	5	4	5	13320	55	38	1060	833	3925
WTE°0563 EM	Monophase	5	6	3	22320	68	40	1060	833	2985
WTE°0564 EM	Monophase	5	6	4	21300	76	40	1060	833	2985
WTE°0565 EM	Monophase	5	6	5	19980	82	10	1060	833	2985
WTE°0583 EM	Monophase	5	8	3	29760	90	41	1060	833	3925
WTE°0584 EM	Monophase	5	8	4	28400	102	41	1060	833	3925
WTE°0585 EM	Monophase	5	8	5	26640	109	41	1060	833	3925
WTE°0613BT	triangle	6	1	3	9550	23	49	1200	1033	1340
WTE°0614BT	triangle	6	1	4	9150	28	49	1200	1033	1340
WTE°0615BT	triangle	6	1	5	8700	31	49	1200	1033	1340
WTE°0623BT	triangle	6	2	3	19100	48	52	1200	1033	2500
WTE°0624BT	triangle	6	5	4	18300	56	52	1200	1033	2500
WTE°0625BT	triangle	6	2	5	17400	62	52	1200	1033	2500
WTE°0633BT	triangle	6	3	3	28650	74	54	1200	1033	3660
WTE°0634BT	triangle	6	3	4	27450	85	54	1200	1033	3660
WTE°0635BT	triangle	6	3	5	26100	93	54	1200	1033	3660
WTE°0643BT	triangle	6	4	3	38200	98	55	1200	1033	4820
WTE°0644BT	triangle	6	4	4	36600	113	55	1200	1033	4820
WTE°0645BT	triangle	6	4	5	34800	123	55	1200	1033	4820
WTE°0663BT	triangle	6	6	3	57300	147	57	1200	1033	3660
WTE°0664BT	triangle	6	6	4	54900	171	57	1200	1033	3660
WTE°0665BT	triangle	6	6	5	52200	186	57	1200	1033	3660
WTE°0683BT	triangle	6	8	3	76400	195	58	1200	1033	4820
WTE°0684BT	triangle	6	8	4	73200	226	58	1200	1033	4820
WTE°0685BT	triangle	6	8	5	69600	246	58	1200	1033	4820
WTE°0613ST	triangle	6	1	3	6750	19	42	1200	1033	1340
WTE°0614ST	triangle	6	1	4	6500	22	42	1200	1033	1340

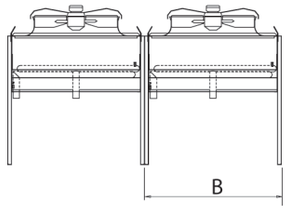
The performance refers to the following conditions:

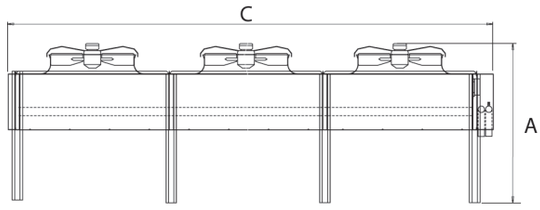
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

Technical and dimensional data

WTE





WTE°0615ST	triangle	6	1	5	6200	24	42	1200	1033	1340
Model WTE	**wiring connec.**	**ø Fans**	**Fan**	**Rows**	**air flow rate**	**Power**	**Sound pressure**		**Dimensions [mm]**	
		[dm]	**[n°]**	**[n°]**	**[m3/h]**	**[kW]**	**dB(A)**	**A**	**B**	**C**
WTE°0623ST	triangle	6	2	3	13500	38	45	1200	1033	2500
WTE°0624ST	triangle	6	2	4	13000	45	45	1200	1033	2500
WTE°0625ST	triangle	6	2	5	12400	48	45	1200	1033	2500
WTE°0633ST	triangle	6	3	3	20250	58	47	1200	1033	3660
WTE°0634ST	triangle	6	3	4	19500	67	47	1200	1033	3660
WTE°0635ST	triangle	6	3	5	18600	73	47	1200	1033	3660
WTE°0643ST	triangle	6	4	3	27000	77	48	1200	1033	4820
WTE°0644ST	triangle	6	4	4	26000	88	48	1200	1033	4820
WTE°0645ST	triangle	6	4	5	24800	98	48	1200	1033	4820
WTE°0663ST	triangle	6	6	3	40500	116	50	1200	1033	3660
WTE°0664ST	triangle	6	6	4	39000	134	50	1200	1033	3660
WTE°0665ST	triangle	6	6	5	37200	147	50	1200	1033	3660
WTE°0683ST	triangle	6	8	3	54000	154	51	1200	1033	4820
WTE°0684ST	triangle	6	8	4	52000	177	51	1200	1033	4820
WTE°0685ST	triangle	6	8	5	49600	196	51	1200	1033	4820
WTE°0613ET	triangle	6	1	3	4450	14	32	1200	1033	1340
WTE°0614ET	triangle	6	1	4	4300	16	32	1200	1033	1340
WTE°0615ET	triangle	6	1	5	4050	17	32	1200	1033	1340
WTE°0623ET	triangle	6	2	3	8900	29	35	1200	1033	2500
WTE°0624ET	triangle	6	2	4	8600	33	35	1200	1033	2500
WTE°0625ET	triangle	6	2	5	8100	35	35	1200	1033	2500
WTE°0633ET	triangle	6	3	3	13350	44	37	1200	1033	3660
WTE°0634ET	triangle	6	3	4	12900	50	37	1200	1033	3660
WTE°0635ET	triangle	6	3	5	12150	53	37	1200	1033	3660
WTE°0643ET	triangle	6	4	3	17800	59	38	1200	1033	4820
WTE°0644ET	triangle	6	4	4	17200	67	38	1200	1033	4820
WTE°0645ET	triangle	6	4	5	16200	69	38	1200	1033	4820
WTE°0663ET	triangle	6	6	3	26700	89	40	1200	1033	3660
WTE°0664ET	triangle	6	6	4	25800	100	40	1200	1033	3660
WTE°0665ET	triangle	6	6	5	24300	105	40	1200	1033	3660
WTE°0683ET	triangle	6	8	3	35600	118	41	1200	1033	4820
WTE°0684ET	triangle	6	8	4	34400	133	41	1200	1033	4820
WTE°0685ET	triangle	6	8	5	32400	139	41	1200	1033	4820
WTE°0913BT	triangle	9	1	3	20400	47	56	1530	1434	1633
WTE°0914BT	triangle	9	1	4	19350	55	56	1530	1434	1633
WTE°0916BT	triangle	9	1	6	17700	65	56	1530	1434	1633
WTE°0923BT	triangle	9	2	3	40800	96	59	1530	1434	3063
WTE°0924BT	triangle	9	2	4	38700	111	59	1530	1434	3063
WTE°0926BT	triangle	9	2	6	35400	133	59	1530	1434	3063
WTE°0933BT	triangle	9	3	3	61200	144	61	1530	1434	4493
WTE°0934BT	triangle	9	3	4	58050	168	61	1530	1434	4493
WTE°0936BT	triangle	9	3	6	53100	195	61	1530	1434	4493
WTE°0943BT	triangle	9	4	3	81600	191	62	1530	1434	3063
WTE°0944BT	triangle	9	4	4	77400	223	62	1530	1434	3063
WTE°0946BT	triangle	9	4	6	70800	267	62	1530	1434	3063
WTE°0963BT	triangle	9	6	3	122400	289	64	1530	1434	4493
WTE°0964BT	triangle	9	6	4	116100	335	64	1530	1434	4493
WTE°0966BT	triangle	9	6	6	106200	390	64	1530	1434	4493
WTE°0913ST	triangle	9	1	3	15000	39	50	1530	1434	1633
WTE°0914ST	triangle	9	1	4	14050	45	50	1530	1434	1633
WTE°0916ST	triangle	9	1	6	12900	51	50	1530	1434	1633
WTE°0923ST	triangle	9	2	3	30000	78	53	1530	1434	3063
WTE°0924ST	triangle	9	2	4	28100	91	53	1530	1434	3063
WTE°0926ST	triangle	9	2	6	25800	104	53	1530	1434	3063
WTE°0933ST	triangle	9	3	3	45000	118	55	1530	1434	4493
WTE°0934ST	triangle	9	3	4	42150	133	55	1530	1434	4493
WTE°0936ST	triangle	9	3	6	38700	158	55	1530	1434	4493
WTE°0943ST	triangle	9	4	3	60000	156	56	1530	1434	3063

The performance refers to the following conditions:

e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

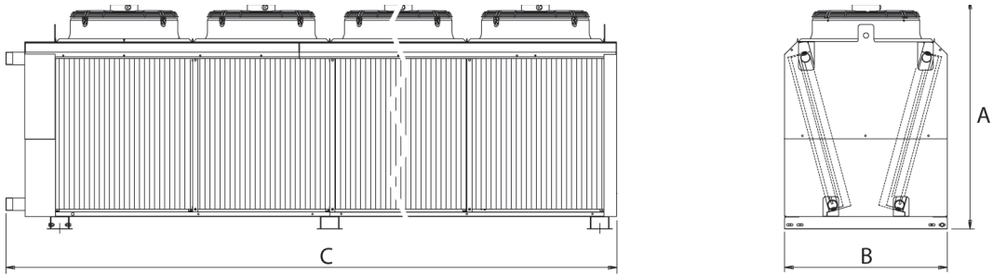
Technical and dimensional data

Model WTE	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTE°0944ST	triangle	9	4	4	56200	183	56	1530	1434	3063
WTE°0946ST	triangle	9	4	6	51600	208	56	1530	1434	3063
WTE°0963ST	triangle	9	6	3	90000	235	58	1530	1434	4493
WTE°0964ST	triangle	9	6	4	84300	267	58	1530	1434	4493
WTE°0966ST	triangle	9	6	6	77400	316	58	1530	1434	4493
WTE°0913ET	triangle	9	1	3	9200	28	38	1530	1434	1633
WTE°0914ET	triangle	9	1	4	8600	32	38	1530	1434	1633
WTE°0916ET	triangle	9	1	6	7800	35	38	1530	1434	1633
WTE°0923ET	triangle	9	2	3	18400	57	41	1530	1434	3063
WTE°0924ET	triangle	9	2	4	17200	65	41	1530	1434	3063
WTE°0926ET	triangle	9	2	6	15600	70	41	1530	1434	3063
WTE°0933ET	triangle	9	3	3	27600	87	43	1530	1434	4493
WTE°0934ET	triangle	9	3	4	25800	96	43	1530	1434	4493
WTE°0936ET	triangle	9	3	6	23400	106	43	1530	1434	4493
WTE°0943ET	triangle	9	4	3	36800	115	44	1530	1434	3063
WTE°0944ET	triangle	9	4	4	34400	129	44	1530	1434	3063
WTE°0946ET	triangle	9	4	6	31200	141	44	1530	1434	3063
WTE°0963ET	triangle	9	6	3	55200	174	46	1530	1434	4493
WTE°0964ET	triangle	9	6	4	51600	193	46	1530	1434	4493
WTE°0966ET	triangle	9	6	6	46800	212	46	1530	1434	4493

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

WTS



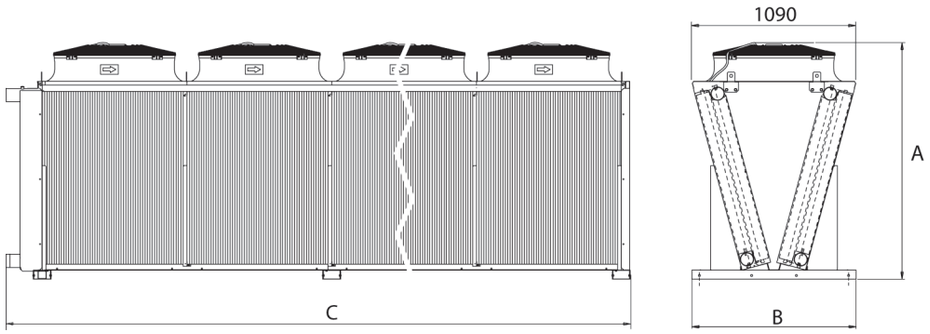
Model WTS	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTS°0523BT	triangle	5	2	3	15.800	46	51	1065	780	1610
WTS°0524BT	triangle	5	2	4	15.200	51	51	1065	780	1610
WTS°0533BT	triangle	5	3	3	23700	69	53	1065	780	2265
WTS°0534BT	triangle	5	3	4	22800	77	53	1065	780	2265
WTS°0543BT	triangle	5	4	3	31600	92	54	1065	780	2920
WTS°0544BT	triangle	5	4	4	30400	103	54	1065	780	2920
WTS°0553BT	triangle	5	5	3	39500	115	55	1065	780	3575
WTS°0554BT	triangle	5	5	4	38000	128	55	1065	780	3575
WTS°0523ST	triangle	5	2	3	10400	38	41	1065	780	1610
WTS°0524ST	triangle	5	2	4	10000	41	41	1065	780	1610
WTS°0533ST	triangle	5	3	3	15600	57	43	1065	780	2265
WTS°0534ST	triangle	5	3	4	15000	62	43	1065	780	2265
WTS°0543ST	triangle	5	4	3	20800	76	44	1065	780	2920
WTS°0544ST	triangle	5	4	4	20000	82	44	1065	780	2920
WTS°0553ST	triangle	5	5	3	26000	95	45	1065	780	3575
WTS°0554ST	triangle	5	5	4	25000	103	45	1065	780	3575
WTS°0523ET	triangle	5	2	3	6800	27	34	1065	780	1610
WTS°0524ET	triangle	5	2	4	6500	29	34	1065	780	1610
WTS°0533ET	triangle	5	3	3	10200	41	36	1065	780	2265
WTS°0534ET	triangle	5	3	4	9750	44	36	1065	780	2265
WTS°0543ET	triangle	5	4	3	13600	54	37	1065	780	2920
WTS°0544ET	triangle	5	4	4	13000	58	37	1065	780	2920
WTS°0553ET	triangle	5	5	3	17000	66	38	1065	780	3575
WTS°0554ET	triangle	5	5	4	16250	71	38	1065	780	3575

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

Technical and dimensional data

WTR

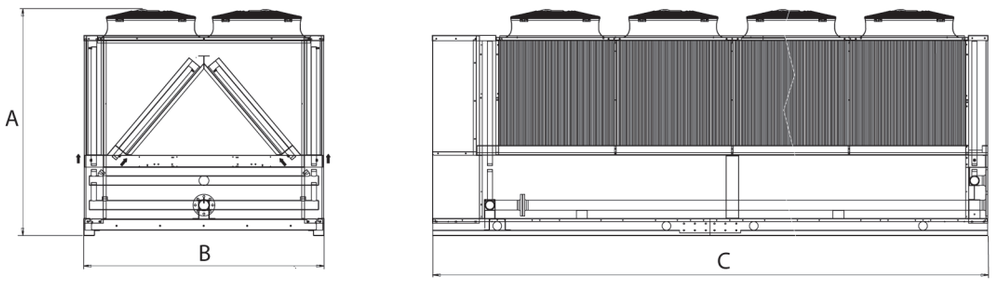


Model WTR	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTR°0823BT	triangle	8	2	3	46.000	131	51	1590	1100	2270
WTR°0824BT	triangle	8	2	4	45.000	150	51	1590	1100	2270
WTR°0833BT	triangle	8	3	3	70000	204	53	1590	1100	3210
WTR°0834BT	triangle	8	3	4	66000	229	53	1590	1100	3210
WTR°0843BT	triangle	8	4	3	92000	275	54	1590	1100	4180
WTR°0844BT	triangle	8	4	4	88500	307	54	1590	1100	4180
WTR°0853BT	triangle	8	5	3	114000	338	55	1590	1100	5150
WTR°0854BT	triangle	8	5	4	112000	390	55	1590	1100	5150
WTR°0823ST	triangle	8	2	3	34000	112	43	1590	1100	2270
WTR°0824ST	triangle	8	2	4	32000	122	43	1590	1100	2270
WTR°0833ST	triangle	8	3	3	50500	167	45	1590	1100	3210
WTR°0834ST	triangle	8	3	4	48000	183	45	1590	1100	3210
WTR°0843ST	triangle	8	4	3	67000	223	46	1590	1100	4180
WTR°0844ST	triangle	8	4	4	63000	240	46	1590	1100	4180
WTR°0853ST	triangle	8	5	3	83500	279	47	1590	1100	5150
WTR°0854ST	triangle	8	5	4	80000	298	47	1590	1100	5150
WTR°0823ET	triangle	8	2	3	21100	79	33	1590	1100	2270
WTR°0833ET	triangle	8	3	3	31750	121	35	1590	1100	3210
WTR°0843ET	triangle	8	4	3	42300	162	36	1590	1100	4180
WTR°0853ET	triangle	8	5	3	52900	203	37	1590	1100	5150

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

WTA



Model WTA	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTA°0843BT	triangle	8	4	3	84.000	283	54	2090	2200	3250
WTA°0844BT	triangle	8	4	4	82.000	314	54	2090	2200	3250
WTA°0863BT	triangle	8	6	3	122000	391	56	2090	2200	3850
WTA°0864BT	triangle	8	6	4	112000	422	56	2090	2200	3850
WTA°0883BT	triangle	8	8	3	165000	525	57	2090	2200	5100
WTA°0884BT	triangle	8	8	4	153000	569	57	2090	2200	5100
WTA°08103BT	triangle	8	10	3	205000	674	58	2090	2200	8100
WTA°08104BT	triangle	8	10	4	190000	736	58	2090	2200	8100
WTA°08123BT	triangle	8	12	3	242000	782	59	2090	2200	8700
WTA°08124BT	triangle	8	12	4	222000	844	59	2090	2200	8700
WTA°08143BT	triangle	8	14	3	282000	916	59	2090	2200	9950
WTA°08144BT	triangle	8	14	4	258000	991	59	2090	2200	9950
WTA°08163BT	triangle	8	16	3	324000	1050	60	2090	2200	11200
WTA°08164BT	triangle	8	16	4	296000	1138	60	2090	2200	11200

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

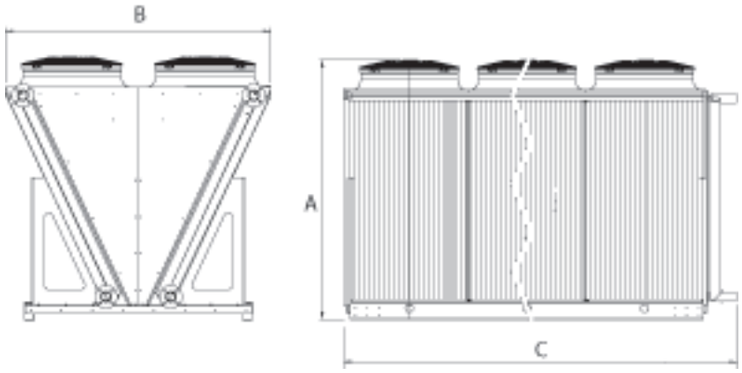
Technical and dimensional data

Model WTA	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTA°0843ST	triangle	8	4	3	62000	220	46	2090	2200	3250
WTA°0844ST	triangle	8	4	4	60000	236	46	2090	2200	3250
WTA°0863ST	triangle	8	6	3	87000	297	48	2090	2200	3850
WTA°0864ST	triangle	8	6	4	82000	316	48	2090	2200	3850
WTA°0883ST	triangle	8	8	3	116000	398	49	2090	2200	5100
WTA°0884ST	triangle	8	8	4	110000	424	49	2090	2200	5100
WTA°08103ST	triangle	8	10	3	147000	517	50	2090	2200	8100
WTA°08104ST	triangle	8	10	4	142000	551	50	2090	2200	8100
WTA°08123ST	triangle	8	12	3	170000	593	51	2090	2200	8700
WTA°08124ST	triangle	8	12	4	162000	632	51	2090	2200	8700
WTA°08143ST	triangle	8	14	3	202000	694	51	2090	2200	9950
WTA°08144ST	triangle	8	14	4	187000	739	51	2090	2200	9950
WTA°08163ST	triangle	8	16	3	230000	796	52	2090	2200	11200
WTA°08164ST	triangle	8	16	4	215000	847	52	2090	2200	11200
WTA°0843 ET	triangle	8	4	6	37400	159	36	2090	2200	3250
WTA°0863 ET	triangle	8	6	3	52500	218	38	2090	2200	3850
WTA°0883 ET	triangle	8	8	3	70300	292	39	2090	2200	5100
WTA°08103 ET	triangle	8	10	3	89900	377	40	2090	2200	8100
WTA°08123 ET	triangle	8	12	3	105100	436	41	2090	2200	8700
WTA°08143 ET	triangle	8	14	3	122800	510	41	2090	2200	9950
WTA°08163 ET	triangle	8	16	3	140600	584	42	2090	2200	11200

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

WDR



Model WDR	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WDR°0843BT	triangle	8	4	3	77.100	232	54	2150	1850	2270
WDR°0844BT	triangle	8	4	4	70.400	254	54	2150	1850	2270
WDR°0863BT	triangle	8	6	3	115700	349	56	2150	1850	3240
WDR°0864BT	triangle	8	6	4	105500	381	56	2150	1850	3240
WDR°0883BT	triangle	8	8	3	154200	467	57	2150	1850	4210
WDR°0884BT	triangle	8	8	4	140700	508	57	2150	1850	4210
WDR°08103BT	triangle	8	10	3	192800	583	58	2150	1850	5180
WDR°08104BT	triangle	8	10	4	176000	635	58	2150	1850	5180
WDR°0843ST	triangle	8	4	3	55000	188	46	2150	1850	2270
WDR°0844ST	triangle	8	4	4	50000	203	46	2150	1850	2270
WDR°0863ST	triangle	8	6	3	82000	286	48	2150	1850	3240
WDR°0864ST	triangle	8	6	4	74500	301	48	2150	1850	3240
WDR°0883ST	triangle	8	8	3	110000	384	49	2150	1850	4210
WDR°0884ST	triangle	8	8	4	99000	405	49	2150	1850	4210
WDR°08103ST	triangle	8	10	3	136000	476	50	2150	1850	5180
WDR°08104ST	triangle	8	10	4	125000	507	50	2150	1850	5180
WDR°0843ET	triangle	8	4	3	33350	137	36	2150	1850	2270
WDR°0863ET	triangle	8	6	3	49900	206	38	2150	1850	3240
WDR°0883ET	triangle	8	8	3	66600	274	39	2150	1850	4210
WDR°08103ET	triangle	8	10	3	83250	343	40	2150	1850	5180

The performance refers to the following conditions:
e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

Cod.: SDRYCOOLERUI.02 / 1201

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

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AERMEC

MEC-W

Water-cooled packaged air conditioners
With radial fans and capacities from 11 up to 55 kW

R407C



Features

- Available in 5 different sizes
- All versions are supplied for use with R407C
- Metallic protective cabinet with rustproof polyester paint
- Double suction radial fans
- Electric motors with belt transmission
- Four row evaporator coil with copper tubes and aluminium fins
- Washable air filter
- Room thermostat with one or two contacts depending on the model
- Hermetic compressors
- Plate-type condenser
- Water flow control valve driven directly in relation to condensing pressure

Accessories

- BAS: Hot water coil with three rows of aluminium finned copper tubes.
- PL: Air distribution plenum comprising delivery grille with two rows of adjustable slats and internal lining of sound insulating material.

Compatibility of accessories

Mod.	307 W	507 W	757 W	1007 W	1507 W
BAS 30	•				
BAS 50		•			
BAS 75			•		
BAS 100				•	
BAS 150					•
BAS 200					
BAS 300					
PL 22	•				
PL 23		•			
PL 26			•		
PL 37				•	
PL 38					•
PL 39					
PL 300					•

Technical data

Mod. MEC		307 W	507 W	757 W	1007 W	1507 W
Cooling capacity	kW	11	18	29	35	55
Input power	kW	3,05	4,45	7,3	8,5	13,7
Water flow rate at 30 °C	l/h	2350	3740	5900	7270	11270
Pressure drops	kPa	38	65	56	65	53
Water consumption at 16 °C*	l/h	620	990	1550	1910	2970
Pressure drops*	kPa	3,5	6,7	5	5,3	5
Heating capacity (accessory BAS)	kW	25,28	46,61	58,01	78,59	113,68
Pressure drops (accessory BAS)	kPa	3,47	4,01	3,97	4,59	5,77
Coil rows	n.	4	4	4	4	4
Nominal air flow rate	m^3/h	2040	3400	5100	6800	10200
e Sound pressure	dB (A)	63	65,5	72,5	69,5	73,5
Motor power	kW	0,375	0,75	1,125	1,5	1,125
Speed	g/m (min.)	840	840	840	620	840
	g/m (max.)	1120	1120	1120	810	1120
Motor pulley diameter	mm (min.)	79	79	79	79	79
	mm (max.)	104	104	104	104	104
Fan pulley diameter	mm	130	130	130	180	130
Air flow rate	m^3/h (min.)	1600	2750	4100	5500	8200
	m^3/h (max.)	2400	4100	6000	8200	12000
Input current	A (230 V)	12,2	15,4	24,2	30,8	46,6
	A (400 V)	6	8,9	13,9	17,8	26,9
Peak current	A (230 V)	98	142	168	157	190
		48	68	101	77	115

Power supply: 3~ 230V 50Hz; 3N~ 400V 50Hz.

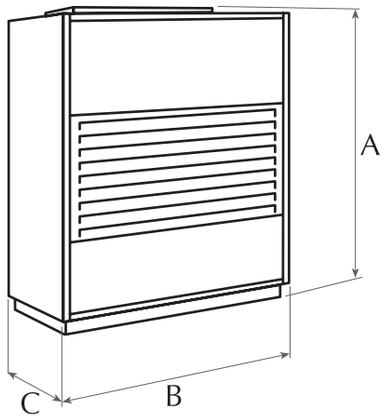
Cooling
- room air temperature 27 °C D.B., 19 °C W.B.;
- condensing temperature 40 °C;

* condensing temperature 35 °C.

Heating
- water inlet temperature 85 °C;
- air intake temperature 15 °C;

e Sound pressure measured in an 85 m3 semi-reverberant test chamber with reverberation time Tr = 0.5s..

Dimensions (mm)



Mod.		307 W	507 W	757 W	1007 W	1507 W
Height	A	1290	1410	1680	1700	1745
Width	B	900	1040	1220	1450	1880
Depth	C	494	558	648	723	753
Weight	kg	147	184	273	335	484

Cod.: SMECUY.03 / 0301

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FW-R

Water-cooled air conditioners with capacities from 2.9 up to 4.0 kW

HFC
Refrigerant
R410A

A

Maximum Operating Efficiency Seasonal Energy (See Technical Data)



TL 3
Mandatory accessory



TL3 Receiver board



TL3 wall-mounted receiver

FW-R series integrated system air conditioners are independent appliances designed and built to create and maintain optimum room comfort conditions.
Discreetly and elegantly styled, these remarkably quiet units are ideal for installation in the home or commercial premises.
Equipped with a water-cooled condenser, FW-R appliances perform all typical cooling, dehumidification, ventilation and air filtration functions while offering particular benefits in terms of ease of application and installation.

Suitable also for winter operation when equipped with an electric heater or hot water coil; console air conditioners are able to provide different microclimates within the same room because each appliance can be adjusted independently; low running costs are assured by fast arrival at the required room temperature because of the low thermal inertia of the system; quiet operation and thermal efficiency are also promoted by the heat and sound insulation of the compressor bay.
All appliances are factory assembled and individually tested.

Features

- High efficiency rotary compressor
- Compact size
- Quiet operation
- Automatic temperature adjustment
- Reduced water consumption
- Low electrical power consumption

Accessories

- **TL3 : Mandatory accessory, remote controller, required for the operation of the unit**
- BR: Armoured heating element with safety thermostat.
- BVR: Single row hot water coil.

Compatibility of accessories		
FW	**130R**	**160R**
TL 3	•	•
BR 26	•	•
BVR 1	•	•

Technical data

Mod.	FW	130R	160R
Cooling capacity	W (max.)	2900	4000
Energy Efficiency Class		A	A
EER		4.08	4.65
Humidity removed	l/h	1.78	1.78
Input power	W	710	860
Input current	A	3.55	4.02
Heating capacity with water coil (BVR1)	W	4350	5200
Water flow rate (BVR1)	l/h	600	600
Pressure drops (BVR1)	kPa	12,6	12,6
Heating capacity electric coil (BR26)	W	1200	1200
Fans	n.	2	2
Air flow rate	m^3/h (max.)	470	690
	m^3/h (med.)	390	525
	m^3/h (min.)	270	375
Fans speed	g/m (max.)	800	1140
	g/m (med.)	660	885
	g/m (min.)	500	665
Sound pressure	dB (A)	44	47,5
Water consumption at 30-35°C	l/h	586	804
Condenser pressure drops	kPa	22	40
Refrigerant	Type/GWP	R410A / 2088kgCO_2eq	
Refrigerant charge	g	750	830
Input nominal power consumption *	W	1120	1500
Nominal imput current *	A	4.97	6.65
Input current	A	18	32
Water connections	ø	1/2″F	1/2″F

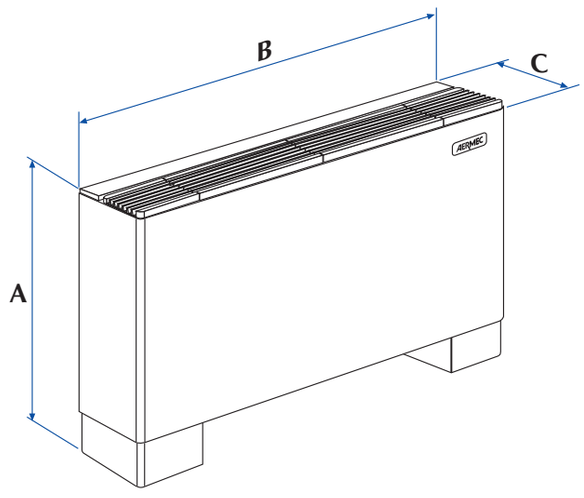
Power supply = 230V ~ 50Hz.

Sound pressure measured in an 85 m^3 semi-reverberant test chamber with reverberation time Tr = 0.5s.
* In accordance with UNI EN-60335
Data declared in accordance with EN-14511

Cooling
- Room air temperature 27°C B.S. ; 19°C B.U.
- Entering water temperature 30°C
- Leaving water temperature 35°C
- Max speed

Heating (BVR1) :
- Room air temperature 20°C
- Entering water temperature 70°C
- Max speed

Dimensions (mm)



		FW 130 R	FW 160 R
Height	A	723	723
Width	B	1121	1121
Depth	C	242	242
Weight	Kg	63	67

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Cod.: SFWRUY.07 / 1701

CWX

Water cooled condensing unit
Cooling only operation
Internal installation with capacity from 3,5 to 6,7kW

HFC
Refrigerant
R410A



EXC



Accessory TL 3



Accessory PF



CWX

Characteristics

- Available in 3 versions of different capacities
- The versions are manufactured with refrigerant R410A (CWX1200, CWX1800, CWX2400)
- Operates as cooling only with condensation by water
- CWX condensing unit with rotary compressor
- **EXC:** internal unit with three speed centrifugal fan with the possibility to modify the electrical connection to increase the available static pressure. **Mandatory accessory PF(wired panel) or TL3 (remote controller), required for the operation of the unit**

Horizontally adjustable discharge louvres and motorised deflector louvres, actioned by the remote controller for vertically adjusting the supply air

Infra red remote controller with liquid crystal display.

- Extremely low noise operation
- Microprocessor controller
- Timer programmed delay start and stop
- Programmes for cooling only, heating only, dehumidification, automatic operation (heating/cooling)
- Washable filter easily removed and with anti mould treatment
- Flare type refrigerant connections
- Refrigerant lines up to 15m
- Vast range of accessories available for the internal unit EXC

Technical data

CWX		1200	1800	2400
Cooling capacity	W	3500	5100	6700
Total power input	W	795	1370	1940
Total current input	A	3.58	6.34	9.62
Water use at 16°C	l/h	140	235	345
Water use at 30-35°C	l/h	706	1082	1450
Sound pressure	dB(A)	47.5	50.5	50.5
Refrigerant	Type/GWP		R410A / 2088kgCO_2eq	
Refrigerant connections	Ø liquid	1/4″	1/4″	1/4″
	Ø gas	1/2″	1/2″	5/8″
Refrigerant lines	Ø liquid	1/4″	1/4″	1/4″
	Ø gas	1/2″	1/2″	5/8″
EXC		**123**	**183**	**243**
Heating capacity (electric heater)	W	1650	1950	2200
Condensate drain rate	l/h	1.4	1.78	2.3
EER	W/W	-	3.72	3.45
Energy efficiency class		-	A	B
Current input (electric heater)	A	7.2	8.5	9.6
Heating capacity with water coil*	W	3800	5000	6700
Internal unit air flow	(min.) m^3/h	310	550	610
	(med.) m^3/h	400	650	830
	(max.) m^3/h	520	840	960
Sound pressure	(min.) dB(A)	29.0	43	41
	(med.) dB(A)	34.5	46.5	45
	(max.) dB(A)	39.0	50	48
Refrigerant connections	Ø liquid	1/4″	1/4″	1/4″
	Ø gas	1/2″	1/2″	5/8″

Power supply = 230V ~ 50Hz

Performances relate to the following conditions:
Sound pressure measured in a semi-reverberant room of 85m^3 and reverberation time Tr = 0.5s
Sound pressure measured in an anechoic chamber at 1.3m distance and directivity factor 4

Cooling:
- ambient air temperature 27°C Db / 19°C WB
- water temperature (in/out) 30°C / 35°C
- maximum speed

* = Apply the connection (1/2″F - 5/8″M) supplied loose with the condensing unit CWX 2400 to the refrigerant connections of unit EWP H

Accessories

Mandatory accessory PF or TL3 are required for the operation of the unit

EXC:
- **PF**: Control panel with ambient electronic thermostat for wall mounting. It is a **mandatory accessory** since the EXC unit is shipped without.
- **TL3**: Infra red remote controller with liquid crystal display for the control of all functions Kit complete with recess mounted base. It is a **mandatory accessory** since the EXC unit is shipped without.
- **AMP**: Hanging installation kit.
- **BC**: Auxiliary condensate drain pan.
- **BV**: 1 row hot water coil.
- **DSC4**: Condensate pump for overcoming lift.
- **GA**: Intake grille with fixed louvres.
- **GAF**: Intake grille with fixed louvres and filter.
- **GM**: Supply grille with adjustable louvres.
- **MA**: Enclosure Alto.
- **MU**: Enclosure Universale.
- **PA**: Suction plenum in galvanised sheet steel, complete with supply connections in plastic for circular duct connections.
- **PC**: Sheet steel panel for enclosing the rear part of the unit.
- **PM**: Discharge plenum in galvanised steel, externally insulated, with supply connections in plastic for circular duct connections.
- **RD**: Discharge straight connection for ducting.
- **RDA**: Suction straight connection for ducting.
- **RP**: Discharge connection 90° for ducting.
- **RPA**: Suction connection 90° for ducting.
- **RX**: Shielded electric heater coil with safety thermostat.
- **SE**: External air manual damper.
- **SW**: Sensor that permits unit operation only with temperature above 35°C.
- **VCF**: Kit consisting of 3 way motorised valve, connections and copper tubes.
- **ZX**: Feet for floor mounting for models with the accessory MA, or recess mounting.

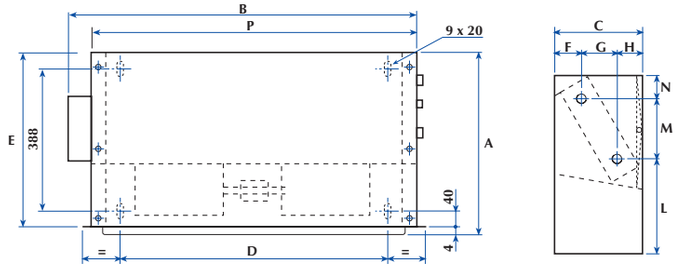
		Accessory compatibility		
		CWX 1200	**CWX 1800**	**CWX 2400**
		EXC 123	**EXC 183**	**EXC 243**
TL	**3** ***	●	●	●
PF	***	●	●	●
AMP		●	●	●
BC	4*	● ****	● ****	● ****
	5**	●	●	
	6**			●
	8	●	●	
	9			●
BV	122			
	132			
	142	●	●	
	162			●
DSC	4	●	●	●
GA	22			
	32			
	42	●	●	
	62			●
GAF	22			
	32			
	42	●	●	
	62			●
GM	22			
	32			
	42	●	●	
	62			●
MA	22			
	32			
	42	●	●	
	62			●
MU	22			
	32			
	42	●	●	
	62			●
PA	22			
	32			
	42	●	●	
	62			●
PC	22			
	23			
	32			
	33			
	42	●	●	
	43	●	●	
	62			●
PM	22			
	32			
	42	●	●	
	62			●
RD	22			
	32			
	42	●	●	
	62			●
RDA	22			
	32			
	42	●	●	
	62			●
RP	22			
	32			
	42	●	●	
	62			●
RPA	22			
	32			
	42	●	●	
	62			●
RX	070			
	090			
	120	●		
	180		●	
	180 T		●	
	240			●
	240 T			●
SE	20X			
	30X			
	40X	●	●	
	80X			●
SW	3	●	●	●
VCF	44	●	●	
	45			●
ZX	5	●	●	
	6			●
	7	●	●	
	8			●

* = in combination with accessory MA ** = in combination with accessory MU *** = Is **a mandatory accessory** in that the EXC unit is shipped without

**** = The VCF valve and the BC4 drain pan cannot be installed simultaneously on the same unit.

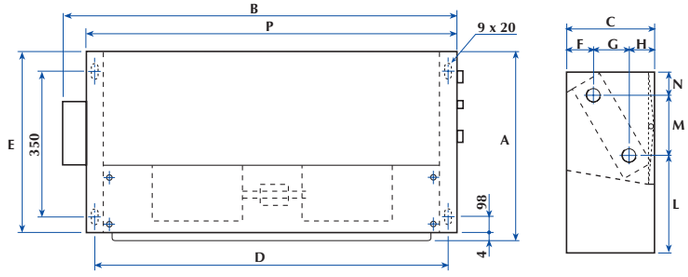
Dimensional data (mm)

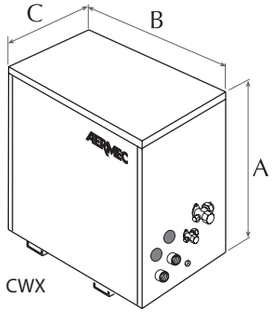
EXC 123 - 183



EXC	123	183	243
A	457	457	562
B	1043	1043	1182
C	216	216	216
D	891	891	1102
E	453	453	558
F	41	41	41
G	101	101	107
H	74	74	68
L	260	260	273
M	144	144	253
N	49	49	32
P	973	973	1122
Weight (kg)	26	27	37

EXC 243





CWX		1200	1800	2400
Height	A	450	450	570
Width	B	470	470	470
Depth	C	260	260	260
Weight	kg	35	38	49

Cod.: SEXCUY.19 / 1701

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Smuffo

Dehumidifier Portable

HFC
Refrigerant
R134a



Features

- Available in 3 sizes of different capacities
- Modern look and casing in plastic material
- Easy to move from one room to another with 4 rotating wheels
- Relative humidity setting between 80% and 35%
- Visual display of the humidity setting and that read in the room
- Possibility to set continuous operation for operation at maximum dehumidification capacity
- 3 fan speed settings
- Easy and immediate use unit mounted control panel
- Delay timer for starting/stopping (2h, 4h)
- Possibility to discharge the condensate into the bucket mounted in the unit or to externally drain directly through the outlet pipe on the side of the unit
- If the condensate collection bucket is full the dehumidifier will stop and light up the relative indicator
- Indicator lights to show the requirement to clean the filter
- Automatic defrost
- Easy of the filter and the condensate collection bucket cleaning and maintenance
- Auto-diagnostic Function
- Auto-Restart Function

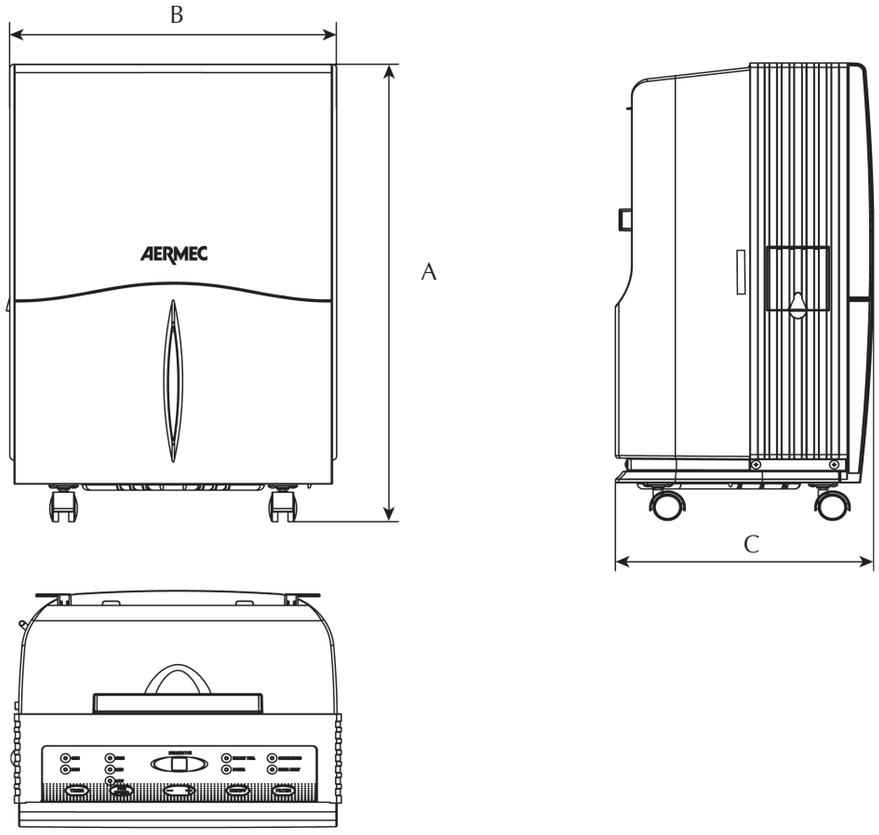
Technical data

Modello			DMK120	DMK200	DMK240
Dehumidification capacity	(1)	l/24h	12	20	24
Dehumidification capacity	(2)	l/24h	4.3	11.5	13.2
Sound power level (max/med/min)		dB(A)	53/51/49	55/53/51	57/55/53
Sound pressure level (max/med/min)	(3)	dB(A)	43/41/39	45/43/41	47/45/43
Air flow rate (max/med/min)		m^3/h	150/120/100	180 / 160 / 140	180 / 160 / 140
Condensate bucket collection capacity		l	4.9	4.9	4.9
Power input	(1)	W	250	400	400
Current input	(1)	A	1.4	2.0	2.1
Nominal power input	(4)	W	330	480	500
Refrigerant		Type / GWP		R134a / 1430kgCO_2eq	
Refrigerant charge		kg	0.09	0.20	0.24
Power supply			220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

Date

(1) Indoor Air Temeperature 30°C b.s./27°C b.u.
(2) Indoor Air Temeperature 27°C b.s./21°C b.u. (Tested According to EN-810)
(3) Sound pressure measured in a semi anechoic chamber, 1m from the front
(4) Tested According to EN-60335

Dimensions (mm)



		DMK120	DMK200	DMK240
Height	A	523	523	523
Width	B	343	343	343
Depth	C	270	270	270
Weight	[kg]	12.5	14.5	15

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Cod.: SDMKUY.02 / 1701

NEW R134a

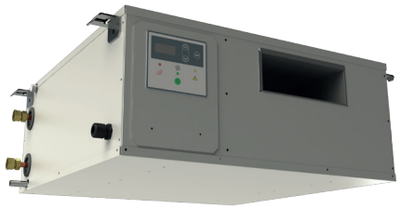
DMH_DMV

Dehumidifiers

Potenza Frigorifera 2,5kW ÷ 6,2kW
Potenza Termica 2,8kW ÷ 6,2kW

With radiant air-conditioning systems

- **Better performance compared to traditional dehumidifiers**
- **Reduced consumption**
- **Prevents condensation on the floor surface**



DMH220 / DMH220C
DMH360 / DMH360C



DMV220

Dehumidifiers are refrigerant cycle machines combined with radiant air-conditioning systems, from which they draw a certain water flow rate to increase the dehumidification efficiency and reduce electricity consumption.
The cooling systems employ chilled water at temperatures between 15°C and 20°C, which is enough to take the rooms to the desired temperature, but not suitable for dehumidification. To lower the latter, you would need water at 7°C, resulting in a reduction in the performance of the water chiller compared to when the water is produced at 15-20°C.
Water-cooled refrigerant cycle dehumidifiers are used to keep the air humidity at optimal values (55-65%) in rooms, with the following benefits compared to other systems:

- They employ the chilled water available in the radiant panel system;
- They are used to process the air without modifying its temperature and, therefore, without affecting the operation of the radiant panels and their adjustment system.

STRUCTURE: The galvanised sheet metal panels, lined on the inside with a soundproofing polyethylene covering.

FILTERING SECTION: Synthetic filtering baffle th. 12 mm made with a galvanised sheet metal frame, efficiency class G3, can be removed from the front.

COOLING CIRCUIT: consisting of a R134a alternative refrigerant compressor, freon filter, expansion capillary, evaporator and condenser with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame (for "-C" cooling versions, water-freon condenser).

HYDRAULIC CIRCUIT: with pre-treatment and post-cooling coils featuring with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame; for "-C" cooling versions, plate water condenser (no post-cooling); stainless steel condensate drip tray extended to the whole treatment.

FAN: double intake centrifugal fan with blades facing forwards, with multi-speed motor directly coupled; 3 different electrical connections available (H/M/L) for the functioning speed; the manufacturer's default setting is medium (M) speed.

ELECTRIC CONTROL BOARD: it includes the recessed electronic board to adjust and control the built-in control panel with a keyboard and LCD display.

ACCESSORIES

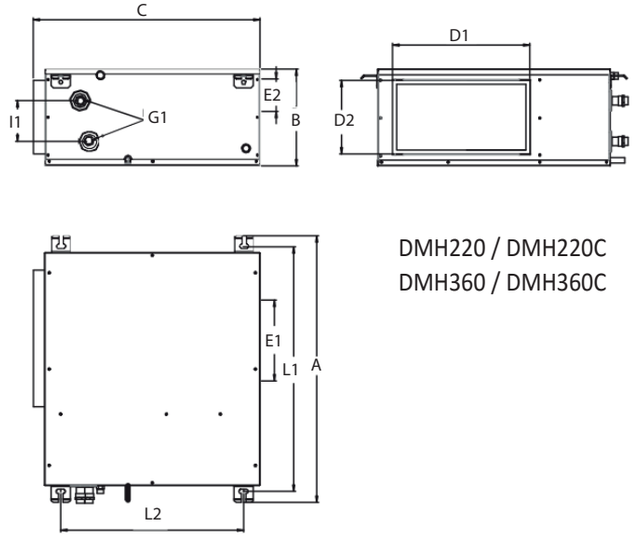
DMUM: ambient humidistat. Wall installation
DMWB: outer casing for vertical model. Vertical installation
DMFP: front panel for outer casing. Vertical installation

DATI TECNICI

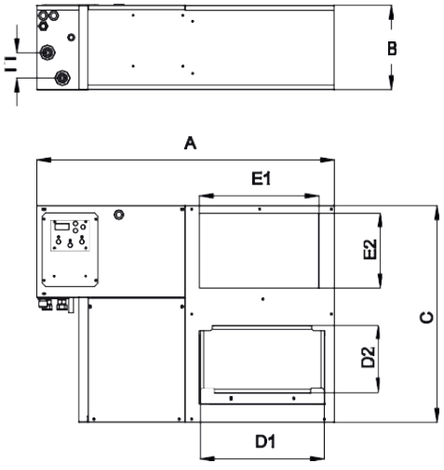
MODEL		DMH 220	DMH 220C	DMH 360	DMH 360C	DMV 220
Condensed humidity	l/24h	22	22	36	36	22
Power at the evaporator	W	1020	1020	1480	1480	1020
Power dissipated with water	W	870	1820	1540	2680	870
Nominal water flow rate	m3/h	0,34	0,39	0,46	0,55	0,34
Water pressure drop	kPa	3	3	10	10	3
Available sensitive power	W	--	840	--	1340	--
Electric power supply	V/ph/Hz			230/1/50		
Total input power	W	350	350	580	580	350
Input current	A	2,0	2,0	3,2	3,2	2,0
FAN						
Type				Centrifugo doppia aspirazione		
Available fan speeds				H / M / L		
Nominal fan setting		M	M	M	M	M
Air flow rate	m^3/h	220	220	360	360	220
Useful static pressure	Pa	20	20	20	20	0
COMPRESSOR						
Type				Ermetico alternativo		
Refrigerant	Tipo / GWP			R134a / 1430kgCO_2eq		
Load amount	g	340	340	400	400	340
OPERATING LIMITS						
Intake air temperature	°C			15 ÷ 32		
Water inlet temperature (dehumidifying mode)	°C			10 ÷ 21		
SOUND LEVEL						
Sound pressure level at 1 m	dB(A)	42	42	47	47	39

The performance refers to the nominal air flow rate under the following conditions:
Ambient air: 26°C BS, UR 65%; Water inlet temperature 15°C .

DIMENSIONI



DMH220 / DMH220C
DMH360 / DMH360C



DMV220

MODEL	DIMENSIONI [mm]											
	A	B	C	D1	D2	E1	E2	I1	L1	L2	G1	[kg]
DMH220 / DMH220C	693	250	623	337	172	210	77	115	635	370	1/2" F	35
DMH360 / DMH360C	793	270	623	437	192	250	95	115	735	370	1/2" F	40
DMV220	850	240	615	337	172	350	215	75 (*)	--	--	1/2" F	40

(*) pre-shearing for hydraulic and electrical connections on the side, rear and bottom panel

Aermec si riserva la facoltà di apportare in qualsiasi momento tutte le modifiche ritenute necessarie per il miglioramento del prodotto con eventuale modifica dei relativi dati tecnici.

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