Products Guide
2012

AERMEC

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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.

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.

1 AIR HANDLING UNITS FOR SYSTEMS

FAN COILS

FCX 12
Universal and vertical installations
FCXI 16
Fan coils with Inverter brushless motor Continuous 0-100% air flow rate regulation
Universal, floor and ducted installation
FCX P 20
Ductable installations
VEC 24
Installation in suspended ceilings
Omnia HL 26
Universal installations for residential applications
Omnia UL 28
Universal installations for residential applications
Ventilcassaforma 30
Template for recessed installation of fancoils in the wall
FCW 32
Wall installation
FCW 34
Wall installation
FCL 36
False ceiling installation and cooling power from 1900 to 11000W
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False ceiling installation and cooling power from 1900 to 4980W
FHX 44
With germicidal lamp
Control panels 48
Variable Multi Flow Sistems 50

THERMOCONVECTORS

Climafon 54
Vertical installation residential use
CLIMABOX 56
Recessed wall-mounted convection heater

AIR CONDITIONING UNITS

VED 58
Air handling terminal with cooling capacities from 8 to 18 kW
TS 62
Air treatment unit with power from 4.85 to 24.8 kW
TDA 64
Air flow rate from 800 to 3,500 cu.m/h
TA 66
Conditioning unit cooling efficiency with 4 row battery from 4.5 to 32 kW
5.5 a 40 kW 6 row coil
heating efficiency with 4 row battery from 14.0 to 78.0 kW
15.5 a 87.5 kW 6 row coil
TUN 70
Ductable air-conditioning unit
T (standard) 74
Air handling unit with capacities from 15.6 to 137.8 kW
T 76
Air handling unit with capacities from 8.8 to 137.8 kW

HEATING RECOVERY UNIT

UR 80
Heating recovery unit
HRS 84
Heat recovery unit
UR CF 88
Heat recovery unit with cooling circuit

LÜFTUNGSZENTRALEN

NCS 90
NCT H 92
NCD 94

2 UNITS FOR SYSTEMS

AIR-COOLED CHILLERS, HEAT PUMPS AND MOTOCONDENSING UNITS

ANL 98
Air-cooled water chillers, heat pumps and condensing units with axial fans
ANLI 102
Heat pump, air cooled units with axial fans
ANF 106
Heat pump, air cooled units with axial fans
ANR 110
Air cooled heat pump units with axial flow fans from 11,90 up to 21,49 kW
ANK 114
Air cooled heat pump units with axial flow fans from 6,82 up to 17,85 kW
HE 118
Air cooled heat pump chillers from 6,7 up to 47,5 kW
HBI 122
Air-Water split heat pump for heating, Cooling and production of DHW Inverter DC
CL 126
Air cooled chiller and heat pump with plug fan
Capacities from 5.5 to 39.3 kW
SRA 130
Heat pumps with axial flow fans from 11,90 up to 21,49 kW
SWP 134
High temperature AIR/WATER heat pumps for production of domestic hot water.
SRP 136
High Temperature AIR/WATER Heat Pump only with “PLUG FAN”
NRL 280-700 140
Air cooled chillers - Cooling only - Cooling capacity from 53 up to 150 kW
NRL-H 280-700 144
Air cooled heat pumps units - Heating capacity from 58 kW up to 171 kW
NRL 750-1800 148
Air cooled chillers - Cooling only - Cooling capacity from 174 kW up to 469 kW
NRL-H 750-1800 152
Air cooled heat pumps - Heating capacity from 165 up to 523 kW
NRL 2000-3600 156
Air cooled chiller - Cooling only - Cooling capacity from 500 kW up to 938 kW
NRL-H 2000-3600 160
Air cooled heat pumps - Heating capacity from 462 up to 944 kW
NRP 200-750 164
Luftgekühlte Mehrzweckeinheiten mit Axiallüftern
NRP 800-1800 168
Luftgekühlte Mehrzweckeinheiten mit Axiallüftern
NRL Free Cooling 280-700 172
NRL Free-Cooling 750-1800 176
NRL Free-Cooling 2000-3600 180
NRC 184
With radial fans and capacities from 46 up to 264 kW
NS 188
With axial fans and power ratings from 238 up to 1600 kW with two-screw compressor
NSH 196
Cooling capacity from 236 up to 732 kW, heating capacity from 275 up to 812
NS Free-Cooling 204
Air cooled chillers with axial fans and cooling ratings from 272 up to 1555 kW
Cooling output in Free-cooling mode from 280 up to 1510 kW with screw compressors
NS Glycol Free 208
Air cooled chillers with axial fans and screw compressors
Cooling capacity from 272 to 1554 kW
Free-cooling capacity from 213 to 1149 kW
TBX 212
Air cooled chillers with two-stage centrifugal compressor and axial fans
Cooling capacity from 259 to 861 kW

INDEPENDENT SYSTEM

IDROBLOC 216
With capacity from 3.5 up to 6.7 kW
IDROBLOC C 218
With capacity from 3.5 up to 8.2 kW

2 UNITS FOR SYSTEMS

WATER-COOLED CHILLERS, HEAT PUMPS AND MOTOEVAPORATING UNITS

Venice **220**
Water cooled reversible with capacities from 5.3 up to 9.7 kW

WRL 025-160 ..... **222**
Water-cooled chillers Cooling capacity from 6.6 to 43.7 kW

WRL 180-650 ..... **226**
Reversible water-cooled chillers for the production of hot water up to 55 °C
Cooling capacity from 50 to 168 kW - Heating capacity from 53 to 187 kW

WRL-H 025-160 ..... **230**
Water cooled reversible heat pumps for the production of hot water up to 60 °C
Cooling capacity from 6 up to 40 kW - Heating capacity from 8 up to 48 kW

WRL-H 180-650 ..... **234**
Water cooled reversible heat pumps for the production of hot water up to 55 °C
Cooling capacity from 45 to 157 kW - Heating capacity from 53 to 183 kW

VXT **238**
GEOTHERMAL water/water reversible heat pump Heating, cooling
and domestic hot water

NXW **242**
Water cooled heat pump units with scroll compressors
from 106 up to 419 kW

WSA **250**
With cooling capacity from 179 up to 715 kW

WSB **254**
With cooling capacity from 172 up to 704 kW
With heating capacity from 184 up to 741 kW

WSH **258**
WATER cooled heat pump reverse cycle with two-screw compressor

TW110 ..... **262**
Water cooled modular chiller with centrifugal compressor with R134a

WF **264**
WATER/WATER chillers - Cooling capacity from 616 up to 1492 kW
Heating capacity from 634 up to 1535 kW

HWF **268**
WATER/WATER chillers with twin screw compressor from 630 up to 1609 kW

ROOFTOP

RTE 025-200 ..... **272**
Cooling capacity from 10 up to 52 kW

RTE 240-400 ..... **276**
Cooling capacity from 77 up to 142 kW

RTE 480-800 ..... **280**
Cooling capacity from 154 up to 254 kW

WATER-COOLED PACKAGED AIR CONDITIONERS

MEC-W **284**
With radial fans and capacities from 11 up to 55 kW

COMPONENTS FOR AIR CONDITIONING SYSTEMS

SAP **286**
Storage tank with capacity from 75 up to 3500 l

TRA **290**
Cooling towers with capacities from 49.53 up to 1084.88 kW

REMOTE CONDENSERS **292**
Remote condensers

DRY COOLERS **300**
Dry coolers

DMP **308**
Recessed dehumidifier for floor systems

01. FANCOILS

Aermec and fancoils: complementary names where the company identifies and product and vice versa. In this area of climate control, Aermec is a 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 and 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 panels to enable automatic operation and achieve the most user-friendly climatisers to date. Aermec fancoils boast all these features and more.

AERMEC

FCX

Fan coils
Universal and floor installation

Variable Multi Flow®

VMF

White:
housing: RAL 9002
head and feet: RAL 7044



FCX APC

ZX



FCX-U

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: FC / 2 / H, FC / 4 / H
the products are present on the site
www .eurovent-certification. com

ion Plasmacluster

Plasmacluster

PLASMACLUSTER ioniser filter
Plasmacluster reduces pollutants by decomposing their molecules.
By means of electrical discharges, "Plasmacluster" provokes the fission of the water molecules in the air, into positive and negative ions. These ions neutralise the molecules of the gas pollutants, thereby creating products that are normally found in the air anyway.
The result is in the air: at last you'll be able to breathe clean, ionised air free of any bad smells.

Features

- Available in 14 sizes and 8 versions:

- **Vertical installation:**
  FCX-A: vertical free-standing with switch
  FCX-AS: vertical free-standing without switch. Compatible with the VMF system
  FCX-ACT: vertical free standing with electronic thermostat
  FCX-APC: (FCX 22, 24, 32, 34, 42, 44, 50, 54, 62, 64, 82, 84) vertical free-standing with electronic thermostat and Plasmacluster purifier
  FCX-B: front suction, without selector. Compatible with the VMF system
- **Vertical and horizontal installation:**
  FCX-U: universal floor or wall/ceiling mounting. Adjustable air distribution grille, except for models 62, 64, 82, 84 and 102. Compatible with the VMF system
  FCX-UA: universal floor or wall/ceiling mounting. Grille with fixed fins. Compatible with the VMF system
  FCX-UE: universal floor or wall/ceiling mounting with direct expansion coil. Adjustable air distribution grille, except for models 62, 82 and 102.

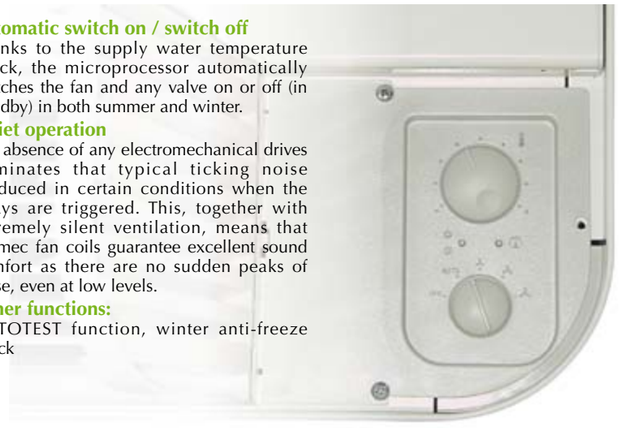
- Versions with 3-row coil (FCX 17, 22, 32, 42, 50, 62, 82 and 102)
- Versions with 4-row coil (FCX 24, 34, 44, 54, 64, and 84)
- EUROVENT Certification
- 3-speed ventilating unit
- Full compliance with the accident prevention standards
- Rounded line
- Automatic fan coil switch-off with closure of the air distribution grille
- Broad range of controls
- Metallic protective cabinet with rustproofing polyester paint
- Quiet operation
- Low loss of charge in the heat exchange batteries
- Electric motors with permanently inserted condensers
- Ease of installation and maintenance
- Air filter easy to remove and clean
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase

Electronic thermostat (FCX-ACT)

Automatic switch on / switch off
Thanks to the supply water temperature check, the microprocessor automatically switches the fan and any valve on or off (in standby) in both summer and winter.

Quiet operation
The absence of any electromechanical drives eliminates that typical ticking noise produced in certain conditions when the relays are triggered. This, together with extremely silent ventilation, means that Aermec fan coils guarantee excellent sound comfort as there are no sudden peaks of noise, even at low levels.

Other functions:
AUTOTEST function, winter anti-freeze check



Automatic fan speed change
Possibility of automatic fan speed change, to ensure the gradual modulation of the power output.

Automatic season changeover
Thanks to a supply water temperature check, the panel automatically positions itself in winter or summer operation, automatically changing the temperature scale in the thermostat as well.

Accessories

- **AMP**: kit for the wall mounting installation of versions FCX U and UE.
- **BC**: Auxiliary condensate drip tray. Use the BC 5-6 tray accessory if horizontal, or BC 4 if vertical.
- **BV**: Single row hot water coil. Not available for 4-row versions or those with Plasmacluster.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **PC**: Sheet metal panel to close rear of unit.
- **RX**: Armoured electric coil with safety thermostat. (Requires a thermostat with heater management). Not available for 4-row versions or those with Plasmacluster.
- **SE**: Manually operated fresh air intake louver.
- **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.
- **SW3**: water temperature probe that gives the automatic season change feature to electronic thermostats supplied with water-side change over.
- **SWA:** SWA external probe accessory (length L = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) of the panel FMT20AW; 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 FMT20AW panel. Two SWA probes can be connected to the panel FMT20AW simultaneously.
- **VCF**: the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. For 3/4-row and 1-row coils (BV). Combine the SW3 probe with FCX ACT, too. Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of powered 2-way valve, copper couplings and pipes. For 3/4-row and 1-row coils (BV). Combine the SW3 probe with FCX ACT, too. Versions with 230V and 24V~50Hz power supply.
- **ZX**: Feet for floor-standing installations for A-AS-ACT-APC models.
- **Control panels and VMF System**: the characteristics are described on the appropriate card.

Accessories		FCX Fan Coil Size 17	22	24	32	34	42	44	50	54	62	64	82	84	102	Versions
AMP*		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	U-UA-UE
AMP20		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	U-UA-UE
BC	4******	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	A-AS-ACT-APC-B-U-UA-UE
	5	✔	✔	✔	✔	✔	✔	✔	✔	✔						U-UA-UE
	6										✔	✔	✔	✔	✔	U-UA-UE
BV**	117	✔														A-AS-B-U-UA
	122		✔													A-AS-B-U-UA
	132				✔											A-AS-B-U-UA
	142						✔		✔							A-AS-B-U-UA
	162										✔		✔		✔	A-AS-B-U-UA
DSC4*		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	A-AS-ACT-APC-B-U-UA-UE
FMT10		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
FMT20AW		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
KTLM		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PC	17	✔														A-AS-ACT-APC-B-UA
	18	✔														U-UE
	22		✔	✔												A-AS-ACT-APC-B-UA
	23		✔	✔												U-UE
	32				✔	✔										A-AS-ACT-APC-B-UA
	33				✔	✔										U-UE
	42						✔	✔	✔	✔						A-AS-ACT-APC-B-UA
	43						✔	✔	✔	✔						U-UE
	62										✔	✔	✔	✔	✔	A-AS-ACT-B-U-UA-UE
PTI		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-UA-U(62 - 102)
PX		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PX2•PX2C6****		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PXBI		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PXAE		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PXAI		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
PXAR		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
RX**	17	✔														A-AS-B-U-UA
	22		✔													A-AS-B-U-UA-UE
	32				✔											A-AS-B-U-UA-UE
	42						✔									A-AS-B-U-UA-UE
	52								✔							A-AS-B-U-UA-UE
	62										✔		✔		✔	A-AS-B-U-UA-UE
SE	15X	✔														A-AS-ACT-APC
	20X		✔	✔												A-AS-ACT-APC
	30X				✔	✔										A-AS-ACT-APC
	40X						✔	✔	✔	✔						A-AS-ACT-APC
	80X										✔	✔	✔	✔	✔	A-AS-ACT-APC
SIT	3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA-UE
	5	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA-UE
SW3		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
SWA		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
TF1		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
VCF ******	41-4124***	✔	✔		✔											A-AS-ACT-APC-B-U-UA
	42-4224***			✔		✔	✔	✔	✔	✔						A-AS-ACT-APC-B-U-UA
	43-4324***										✔	✔	✔	✔	✔	A-AS-ACT-APC-B-U-UA
	44-4424***	✔****	✔****		✔****		✔****		✔****							A-AS-B-U-UA
	45-4524***										✔****		✔****		✔****	A-AS-B-U-UA
	1-124***	✔	✔		✔											A-AS-ACT-APC-B-U-UA
VCFD	2-224***			✔		✔	✔	✔	✔	✔						A-AS-ACT-APC-B-U-UA
	3-324***										✔	✔	✔	✔	✔	A-AS-ACT-APC-B-U-UA
	4-424***	✔****	✔****		✔****		✔****		✔****		✔****		✔****		✔****	A-AS-B-U-UA
WMT05		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
WMT10		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	AS-B-U-UA
ZX	5	✔	✔	✔	✔	✔	✔	✔	✔	✔						A-AS-ACT-APC
	6										✔	✔	✔	✔	✔	A-AS-ACT-APC

* = The DSC4 accessory is not compatible with the installation brackets AMP. The DSC4 accessory is compatible with the installation brackets AMP20.
** = The accessory is not available for models fitted with a Plasmacluster filter.
*** = 24 Volt.
**** = Only for the BV 1-row coil accessory.
***** = PX2C6, PX2 panel in multiple 6-piece pack.
****** = The VCF valve and the BC4 tray cannot be installed together on a single fan coil.

Technical data

Mod.	FCX	17	22	24	32	34	42	44	50	54	62	64	82	84	102
Heating capacity	W (max.)	2490	3400	3950	4975	5850	7400	8600	8620	10100	12920	14300	15140	17100	17020
	W (med.)	2070	2700	3200	4085	4850	6415	6930	7530	8760	10940	11500	13350	14420	15240
	W (min.)	1610	1915	2200	3380	3850	5115	5200	5420	6240	8330	8500	10770	11200	12560
Heating capacity *	W **(E)**	1360	2100	2320	3160	3550	4240	5250	4900	6100	6460	7810	7990	10400	9670
(water inlet 50°C)															
Heating capacity (electric resistor)	W	700	950	-	1300	-	1650	-	1950	-	2200	-	2200	-	2200
Water flow rate	l/h	214	292	340	427	503	636	740	741	869	1110	1230	1300	1471	1464
Water pressure drops	kPa	2,8	6,3	4	14,2	8	14,1	21	14,2	22	14,8	22	19,8	30	16,6
Total cooling capacity	W (max.) **(E)**	1000	1500	1730	2210	2800	3400	4450	4190	4970	4860	6350	7420	8600	7620
	W (med.)	890	1330	1500	2055	2450	2800	3780	3640	4770	4660	5520	5500	7600	7140
	W (min.)	720	1055	1150	1570	2050	2310	2970	2840	3620	3950	4500	4710	6270	6270
Sensible cooling capacity	W (max.) **(E)**	830	1240	1380	1750	2130	2760	3300	3000	3540	3980	5030	5680	5780	5980
	W (med.)	710	1055	1140	1540	1789	2115	2722	2750	3101	3510	4195	4250	5016	4984
	W (min.)	540	755	828	1100	1441	1635	2079	2040	2281	2825	3330	3450	4013	4263
Water flow rate	l/h	172	258	297	380	482	585	765	721	855	836	1092	1276	1479	1311
Water pressure drops	kPa **(E)**	2,6	5,8	3	16,6	9	14,3	19,2	19,3	25,9	11,6	13	13,5	22	19,2
Air flow rate	m^3/h (max.)	200	290	290	450	450	600	600	720	720	920	920	1140	1140	1300
	m^3/h (med.)	160	220	220	350	350	460	460	600	600	720	720	930	930	1120
	m^3/h (min.)	110	140	140	260	260	330	330	400	400	520	520	700	700	900
Number of fans	n.	1	1	1	2	2	2	2	2	2	3	3	3	3	3
♪Sound pressure	dB (A) (max.)	36,5	41,5	42,5	39,5	39,5	42,5	46,5	47,5	47,5	48,5	48,5	53,5	52,5	57,5
	dB (A) (med.)	29,5	34,5	37,5	32,5	32,5	35,5	41,5	42,5	44,5	42,5	42,5	48,5	48,5	52,5
	dB (A) (min.)	22,5	22,5	26,5	25,5	27,5	28,5	32,5	33,5	35,5	33,5	35,5	41,5	42,5	47,5
Sound power	dB (A) (max.)**(E)**	45	50	51	48	48	51	55	56	56	57	57	62	61	66
	dB (A) (med.)**(E)**	38	43	46	41	41	44	50	51	53	51	51	57	57	61
	dB (A) (min.)**(E)**	31	31	35	34	36	37	41	42	44	42	44	50	51	56
Water content	l	0,58	0,79	1	1,11	1,5	1,48	1,9	1,48	1,9	2,52	3,4	2,52	3,4	2,52
Max. motor power	(W) **(E)**	35	25	33	44	44	57	57	67	67	82	91	106	106	131
Max input current	(A)	0,16	0,12	0,25	0,21	0,45	0,28	0,51	0,35	0,36	0,4	0,48	0,49	0,62	0,58
Max. motor power	(W)	735	975	-	1344	-	1707	-	2017	-	2282	-	2306	-	2331
with electric heater															
Input current	(A)	3,2	4,25	-	5,86	-	7,45	-	8,83	-	9,97	-	10,06	-	10,15
Coil connections	ø (4R)	-	-	3/4″	-	3/4″	-	3/4″	-	3/4″	-	3/4″	-	3/4″	-
	ø (3R)	1/2″	1/2″	-	1/2″	-	3/4″	-	3/4″	-	3/4″	-	3/4″	-	3/4″
	ø (1R)	1/2″	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″

Power supply = 230V ~ 50Hz

(E) = EUROVENT certificate performances

Performance values refer to the following conditions:

♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

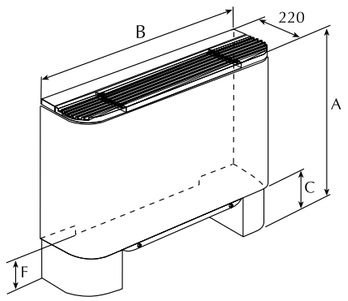
Cooling:
- Room air temperature 27°C D.B. ; 19°C W.B.
- maximum speed:
  - water inlet temperature 7°C; Dt water 5°C.
- medium and minimum speed:
  - water inlet temperature 7°C;
  - water flow rate as at maximum speed.

Heating:
room air temperature 20°C D.B.
- maximum speed
  - water inlet temperature 70°C; Dt water 10°C.
- medium and minimum speed:
  - water inlet temperature 70°C;
  - water flow rate as at maximum speed.

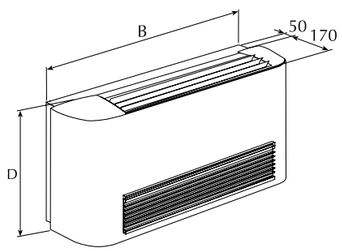
Heating*:
room air temperature 20°C D.B.
- maximum speed
  - water inlet temperature 50°C;
  - water flow rate as for cooling operation.

VERSION	AVAILABLE SIZES													
FCX A	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX AS	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX ACT	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX APC	-	22	24	32	34	42	44	50	54	62	64	82	84	-
FCX B	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX U	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX UA	17	22	24	32	34	42	44	50	54	-	-	-	-	-
FCX UE	-	22	-	32	-	42	-	50	-	62	-	82	-	102

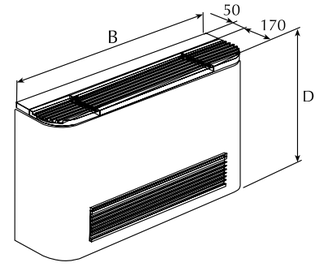
Dimensions (mm)



FCX A
FCX AS
FCX ACT
FCX APC



FCX U 17 - 22 - 32 - 42 - 50
FCX U 24 - 34 - 44 - 54
FCX UE 22 - 32 - 42 - 50



FCX B
FCX UA 17 - 22 - 32 - 42 - 50
FCX UA 24 - 34 - 44 - 54
FCX U 62 - 82 - 102
FCX U 64 - 84
FCX UE 62 - 82 - 102

Mod FCX (A - AS - ACT - APC)		17	22 / 24	32 / 34	42 / 44	50 / 54	62 / 64	82 / 84	102
Height with feet	A	563	563	563	563	563	688	688	688
Width	B	640	750	980	1200	1200	1320	1320	1320
Feet height	C	105	105	105	105	105	125	125	125
Rear height with feet	F	88	88	88	88	88	108	108	108
Weight (without feet)	kg	13	15	20	24	24	34	34	34

Mod FCX (U - UE)		17	22 / 24	32 / 34	42 / 44	50 / 54	62 / 64	82 / 84	102
Height	D	520	520	520	520	520	590	590	590
Width	B	640	750	980	1200	1200	1320	1320	1320
Weight	kg	13	15	20	24	24	34	34	34

Mod FCX (UA)		17	22 / 24	32 / 34	42 / 44	50 / 54
Height	D	490	490	490	490	490
Width	B	640	750	980	1200	1200
Weight	kg	13	15	20	24	24

Mod FCX (B)		17	22 / 24	32 / 34	42 / 44	50 / 54	62 / 64	82 / 84	102
Height	D	490	490	490	490	490	590	590	590
Width	B	640	750	980	1200	1200	1320	1320	1320
Weight	kg	13	15	20	24	24	34	34	34

Cod.: SFCXUY.15 / 110

FCXI

INVERTER TECHNOLOGY

Fan coils with Inverter brushless motor
Continuous 0-100% air flow rate regulation
Universal, floor and ducted installation

Variable Multi Flow

VMF

FCXI P





FCXI AS

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com



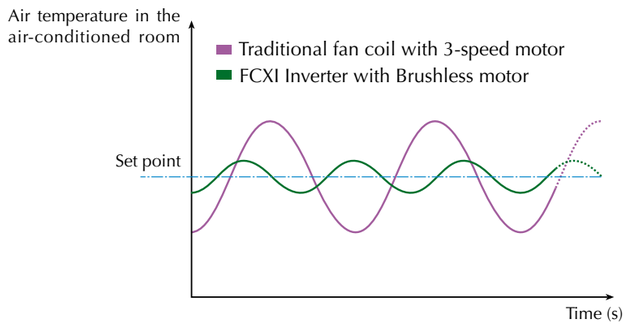
FCXI U

White:
housing: RAL 9002
head and feet: RAL 7044

The future is Inverter

FCXI is the Aermec range of fan coils with continuous 0-100% air flow rate variation and therefore continuous heating/cooling capacity variation.
Thanks to the Inverter technology, the FCXI continuously modifies the air flow rate, adapting it - moment by moment - to the real needs in the room.
This produces considerable advantages in terms of electric savings, comfort and noise reduction compared with a traditional on-off 3-speed fan coil.

- **ELECTRIC SAVINGS OF 50% COMPARED WITH A FAN COIL WITH TRADITIONAL 3–SPEED MOTOR**
- **VERY QUIET OPERATION**
- **TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATIONS IN THE AIR–CONDITIONED ROOMS**



Characteristics

- Available in 5 sizes and 3 versions:
  FCXI AS: with tall cabinet
  FCXI U: with universal cabinet for floor/ ceiling installation
  FCXI P: without cabinet for ceiling installation
- Compatible with VMF System
- EUROVENT Certification
- Fan unit with Brushless motor (continuous 0-100% speed variation)
- Full compliance with the accident prevention standards
- Rounded line
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille, for U versions
- Fan coil automatic power-off function with closure of the air delivery grille, for U versions
- Quiet operation
- Low loss of charge in the heat exchange batteries
- Configurable during the installation phase - using dip switches - to obtain greater head at nominal delivery, for P versions
- Ease of installation and maintenance
- Air filter easy to remove and clean
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase

Brushless electric motor



The "brushless" electric motor is the result of combining the most sophisticated technologies from the fields of mechanics and electronics.
"Brushless" literally means "without brushes".
The brushless electric motor has no sliding contacts between the rotor and the stator.

In brushless motors, the rotor consists of permanent magnets whose magnetic field interacts - without any mechanical contact - with the stator windings. With the special inverter device, it is possible to control the speed and torque of the rotor continuously, just by means of the stator currents.
Compared with the traditional alternate current motors, the brushless motor offers huge advantages:
- reduced wear and tear
- the possibility to adjust the rotation speed accurately and continuously (0-100%)
- higher energy yields
- longer life and greater reliability

These characteristics have made the brushless motor irreplaceable in a wide variety of applications:

- robotics
- automotive
- precision drives
- CD/DVD players
- medical equipment
- etc.

Thanks to Aermec's FCXI range of inverter fan coils, brushless technology can now make inroads in the field of chilled water air conditioning, bringing notable energy savings along with the precise contro of both air temperature and humidity in the air-conditioned rooms.

Accessories

Compulsory accessory, essential for unit operation:
- **WMT20**: Control panel with electronic thermostat and LCD monitor. Essential for operation. Wall mounting.
- **VMF System**: the characteristics are described on the appropriate card.

Accessories:
- **AMP**: Kit for ceiling installation, for versions FCXI P and FCXI U.
- **BC**: Auxiliary condensate drip tray.
- **BV**: 1-row hot water coil. The accessory is not available for the 4R models.
- **CHF**: VentilCassaforma is a galvanised metal template that allows you to create a space directly in the wall for housing the fan coil. The template facilitates masonry work during the construction of the niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from sight. (For FCXI P only).
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **GA**: Intake grille with fixed fins.
- **GAF**: Intake grille with fixed fins and filter.
- **GM**: Delivery grille with adjustable fins.
- **MA**: A-type covering cabinet (use tray accessory BC 4 for FCXI AS).
- **MU**: U-type covering cabinet (use tray accessory BC 5-6 for FCXI U).
- **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.
- **PC**: Sheet metal panel to close rear of unit.
- **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.
- **SE**: External air damper with command FCXI P and FCXI AS.
- **SWI**: Water temperature probe for WMT20 control panels. Cable length L = 2m.
- **VCF**: Kit comprising motorized 3 way valve with isolating shell, unions and insulated copper pipes. For 3/4-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of powered 2-way valve, copper couplings and pipes. For 3/4-row and 1-row coils (BV).
- **ZX**: Feet for floor installations for FCXI AS models.

Accessories		FCXI fan coil Size 20	30	40	50	80	Versions
WMT20		✔	✔	✔	✔	✔	AS - U - P
AMP*		✔	✔	✔	✔	✔	U - P
AMP20		✔	✔	✔	✔	✔	U - P
BC	**4*****	✔	✔	✔	✔	✔	AS - (P+MA)
	5	✔	✔	✔	✔		U - (P+MU)
	6					✔	U - (P+MU)
	8	✔	✔	✔	✔		P
	9					✔	P
BV**	**122**	✔					AS - U - P
	132		✔				AS - U - P
	142			✔	✔		AS - U - P
	162					✔	AS - U - P
CHF	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
DSC4*		✔	✔	✔	✔	✔	AS - U - P
GA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
GAF	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
GM	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
MA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
MU	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
PA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
PA	**22F**	✔					P
	32F		✔				P
	42F			✔	✔		P
	62F					✔	P
PC	**22**	✔					AS
	23	✔					U
	32		✔				AS
	33		✔				U
	42			✔	✔		AS
	43			✔	✔		U
	62					✔	AS - U
PCR	**1**	✔	✔	✔	✔		P
	2					✔	P
PM	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RD	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RDA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RP	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RPA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
SE	**20X**	✔					AS - P
	30X		✔				AS - P
	40X			✔	✔		AS - P
	80X					✔	AS - P
SWI		✔	✔	✔	✔	✔	AS - U - P
VCF ***	**41 - 4124*****	✔	✔				AS - U - P
	42 - 4224***			✔	✔		AS - U - P
	43 - 4324***					✔	AS - U - P
	44 - 4424***	✔****	✔****	✔****	✔****		AS - U - P
	45 - 4524***					✔****	AS - U - P
VCFD	**1 - 124******	✔	✔				AS - U - P
	2 - 224****			✔	✔		AS - U - P
	3 - 324****					✔	AS - U - P
	4 - 424****	✔****	✔****	✔****	✔****	✔****	AS - U - P
ZX	**5**	✔	✔	✔	✔		AS
	6					✔	AS
	7	✔	✔	✔	✔		P
	8					✔	P

* = The DSC4 accessory is not compatible with AMP accessory. The DSC4 accessory is compatible with AMP20 accessory.
** = The accessory is not available for models fitted with a Plasmacluster filter.
*** = 24 Volt.
**** = Only for accessory coil BV 1R.
***** = The BC4 accessory is not available for models fitted with VCF valve.

Technical data

Mod.	FCXI	20	30	40	50	80
Heating capacity (inlet water 70°C)	W (max.)	3400	4975	7400	8620	15140
	W (min.)	1080	1410	1700	1830	2740
Heating capacity (inlet water 50°C) (E)	W (max.)	2100	3160	4240	4900	7990
	W (min.)	670	900	980	1040	1450
Water flow rate	l/h	292	427	636	741	1300
Water pressure drops	kPa	6,3	14,2	14,1	14,2	19,8
Total cooling capacity	W (max.)	1500	2210	3400	4190	7420
	W (min.)	520	690	760	800	1170
Sensible cooling capacity	W (max.)	1240	1750	2760	3000	5680
	W (min.)	370	500	550	536	830
Water flow rate	l/h	258	380	585	721	1276
Water pressure drops	kPa	5,8	16,6	14,3	19,3	13,5
Air flow rate	m^3/h (max.)	290	450	600	720	1140
	m^3/h (min.)	70	115	140	140	190
Number of fans	n.	1	2	2	2	3
♪ Sound pressure	dB(A) Vel. max	41,5	39,5	42,5	47,5	53,5
	dB(A) Vel. med	34,5	32,5	35,5	42,5	48,5
	dB(A) Vel. min	22,5	25,5	28,5	33,5	41,5
Sound power	dB(A) Vel. S.min	21,5	18.5	21,5	21,5	23,5
	dB(A) (max.)	50	48	51	56	62
	dB(A) (min.)	30	28	30	30	32
Water content	l	0,79	1,11	1,48	1,48	2,52
Input power	W (max.)	12	12	16	37	75
Input current	A (max.)	0,11	0,11	0,14	0,3	0,57
Input power** (Maximum head)	W (max.)	36	45	57	62	102
Input current** (Maximum head)	A (max.)	0,33	0,41	0,5	0,51	0,78
Heat exchanger water connections	ø Gas	1/2"	1/2"	3/4"	3/4"	3/4"

Power supply = 230V ~ 50Hz
(E) = **Eurovent certified performance**

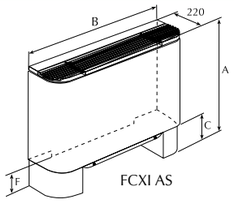
Performance values refer to the following conditions:
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.
** FCXI P version with internal dip-switch setting to obtain the maximum head at nominal delivery.

Cooling:
- room air temperature 27°C D.B., 19°C W.B;
- inlet water temperature 7°C; maximum speed;
- Dt water 5°C.
- for medium and low speed water flow rate, remains the same as at maximum speed.

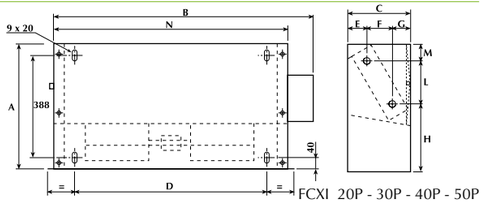
Heating:
room air temperature 20°C D.B.;
- maximum speed:
  - water inlet temperature 70°C; Dt water 10°C;
- medium and minimum speed:
  - water inlet temperature 70°C;
  - water flow rate as at maximum speed.

Heating*:
room air temperature 20°C D.B.;
- maximum speed
  - water inlet temperature 50°C;
  - water flow rate as for cooling operation.

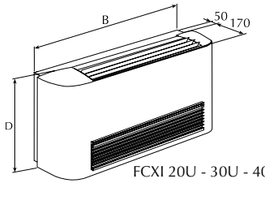
Dimensions (mm)



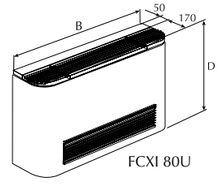
FCXI AS



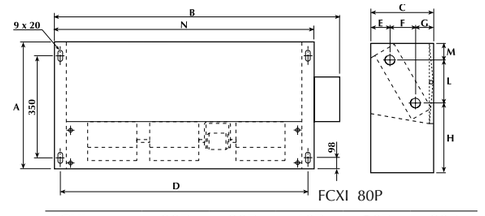
FCXI 20P - 30P - 40P - 50P



FCXI 20U - 30U - 40U - 50U



FCXI 80U



FCXI 80P

Mod FCXI		20 AS	30 AS	40 AS	50 AS	80 AS
Height with feet	A	563	563	563	563	688
Width	B	750	980	1200	1200	1320
Height of feet	C	105	105	105	105	125
Rear height with feet	F	88	88	88	88	108
Weight (without feet)	kg	15	20	24	24	34

Mod FCXI		20 U	30 U	40 U	50 U	80 U
Height	D	520	520	520	520	590
Width	E	750	980	1200	1200	1320
Weight	kg	15	20	24	24	34

FCXI	20P	30P	40P	50P	80P
A	453	453	453	453	558
B	562	793	1013	1013	1147
C	216	216	216	216	216
D	440	671	891	891	1102
E	41	41	41	41	41
F	101	101	101	101	107
G	74	74	74	74	68
H	260	260	260	260	273
L	144	144	144	144	253
M	49	49	49	49	32
N	522	753	973	973	1122
Weight (kg)	13	18	22	22	33

Cod.: SFCXIUY.01 / 1007

AERMEC

FCX P

Fan coils
Duct installation

Variable Multi Flow

VMF



Plasmacluster

Aermec
participate in the EUROVENT
program: FC / 2 / H, FC / 4 / H
the products are present on the site
www .eurovent-certification. com

Features

- Available in 14 sizes and 5 versions:
- **Vertical and horizontal installation**:
  FCX P: wall-mounted model without cabinet
  FCX PPC: (FCX 22, 24, 32, 34, 42, 44, 50, 54, 62, 64, 82, 84) wall/ceiling mounting without cabinet, with Plasmacluster purifier. Compatible with the VMF system, or you can request a combination with the PXAE control panel
  FCX PE: wall-mounted model without cabinet and with direct expansion coil
  FCX PO: cabinet with 6-speed (3 of which can be selected) boosted motor (FCX 22, 32, 42, 50, 62, 64 , 82, 84)
- **Vertical installation**:
  FCX PV: wall-mounted model without cabinet
- Versions with 3-row coil (FCX 17, 22, 32, 42, 50, 62, 82, 102)
- Versions with 4-row coil (FCX 24, 34, 44, 54, 64, and 84)
- EUROVENT Certification
- 3-speed ventilating unit
- Full compliance with the accident prevention standards
- Compatible with the VMF system
- Wide range of controls and accessories
- Quiet operation
- Low loss of charge in batteries
- Electric motors with permanently inserted condensers
- Ease of installation and maintenance
- Air filter easy to remove and clean
- Possibility of a residual head for ducting (if required)
- Internal insulation and air filter in fire resistance class 1
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase

Accessories

- **AMP**: Kit for overhang installation.
- **BC**: Auxiliary condensate drip tray.
- **BV**: 1-row hot water coil. Not available for 4-row versions or those with Plasmacluster.
- **CHF**: VentilCassaforma is a galvanised metal template that allows you to create a space directly in the wall for housing the fan coil. The template facilitates masonry work during the construction of the niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from sight. (For FCX P - PV only).
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **GA**: Intake grille with fixed fins.
- **GAF**: Intake grille with fixed fins and filter.
- **GM**: Delivery grille with adjustable fins.
- **MA**: A-type covering cabinet (use tray accessory BC 4 for FCX AS).
- **MU**: U-type covering cabinet (use the BC 5-6 tray accessory if horizontal, or BC 4 if vertical).
- **PCR**: Galvanised plate protection for the controls and the electrical element.
- **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.
- **RX**: Armoured electric coil with safety thermostat. (Requires a thermostat with heater management). Not available for 4-row versions or those with Plasmacluster.
- **SE**: Manually operated fresh air intake louver.
- **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.
- **SW**: water temperature probe that gives the automatic season change feature to electronic thermostats supplied with water-side change over.
- **SWA**: ASWA external probe accessory (length L = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) of the panel FMT20AW; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the water temperature in the system for ventilation consent, if connected to the connector (W) of the FMT20AW panel. Two SWA probes can be connected to the panel FMT20AW simultaneously.
- **VCF**: the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. For 4-row, 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD**: Kit consisting of powered 2-way valve, copper couplings and pipes. For 4-row, 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **ZX**: Feet for recessed installation.
- **Control panels and VMF System**: the characteristics are described on the appropriate card.

		FCX Fan Coil													
Accessories		**17**	**22**	**24**	**32**	**34**	**42**	**44**	**50**	**54**	**62**	**64**	**82**	**84**	**102**	**Versions**
FMT10		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
FMT20AW		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
KTLP		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
PX		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
PX2 •PX2C6***|	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
PXAE		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
PXAR		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
TF1		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
WMT05		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
WMT10		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
AMP*		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PPC
AMP20		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PPC
BC	**4******| ✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	FCX P-PV+ MA
	5	✔	✔	✔	✔	✔	✔	✔	✔	✔						FCX P + MU
	6										✔	✔	✔	✔	✔	FCX P + MU
	8	✔	✔	✔	✔	✔	✔	✔	✔	✔						P-PE-PO-PPC
	9										✔	✔	✔	✔	✔	P-PE-PO-PPC
BV **	**117**	✔														P-PE-PV
	122		✔													P-PE-PO-PV
	132				✔											P-PE-PO-PV
	142						✔		✔							P-PE-PO-PV
	162										✔		✔		✔	P-PE-PO-PV

		FCX Fan Coil													
Accessories		**17**	**22**	**24**	**32**	**34**	**42**	**44**	**50**	**54**	**62**	**64**	**82**	**84**	**102**	**Versions**
CHF	**17**	✔														P-PV
	22		✔	✔												P-PV
	32				✔	✔										P-PV
	42						✔	✔	✔	✔						P-PV
	62										✔	✔	✔	✔	✔	P-PV
DSC4*		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
GA	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
GAF	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
GM	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
MA	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
MU	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
PA	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
PA	**17 F**	✔														P-PE-PV-PPC
	22 F		✔	✔												P-PE-PO-PV-PPC
	32 F				✔	✔										P-PE-PO-PV-PPC
	42 F						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62 F										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
PCR	**1**	✔	✔	✔	✔	✔	✔	✔	✔	✔						P-PE-PO-PV-PPC
	2										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
PM	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
RD	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
RDA	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
RP	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
RPA	**17**	✔														P-PE-PV-PPC
	22		✔	✔												P-PE-PO-PV-PPC
	32				✔	✔										P-PE-PO-PV-PPC
	42						✔	✔	✔	✔						P-PE-PO-PV-PPC
	62										✔	✔	✔	✔	✔	P-PE-PO-PPC
RX**	**17**	✔														P-PE-PV
	22		✔													P-PE-PO-PV
	32				✔											P-PE-PO-PV
	42						✔									P-PE-PO-PV
	52								✔							P-PE-PO-PV
	62										✔		✔		✔	P-PE-PO-PV
SE	**15X**	✔														P-PE-PV
	20X		✔	✔												P-PE-PO-PV-PPC
	30X				✔	✔										P-PE-PO-PV-PPC
	40X						✔	✔	✔	✔						P-PE-PO-PV-PPC
	80X										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
SIT	**3**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV
	5	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PE-PO-PV-PPC
SW3		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PO-PV
SWA		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	P-PO-PV
VCF ******	**41 - 4124*****	✔	✔		✔											P-PO-PV-PPC
	42 - 4224***			✔		✔	✔	✔	✔	✔						P-PO-PV-PPC
	43 - 4324***										✔	✔	✔	✔	✔	P-PO-PV-PPC
	44 - 4424***	✔****	✔****		✔****		✔****		✔****							P-PO-PV
	45 - 4524***										✔****		✔****		✔****	P-PO-PV
VCFD	**1 - 124*****	✔	✔	✔	✔											P-PO-PV-PPC
	2 - 224***			✔		✔	✔	✔	✔	✔						P-PO-PV-PPC
	3 - 324***										✔	✔	✔	✔	✔	P-PO-PV-PPC
	4 - 424***	✔****	✔****		✔****		✔****		✔****		✔****		✔****		✔****	P-PO-PV
ZX	**7**	✔	✔	✔	✔	✔	✔	✔	✔	✔						P-PE-PO-PV-PPC
	8										✔	✔	✔	✔	✔	P-PE-PO-PV-PPC

* = The DSC4 accessory is not compatible with the installation brackets AMP. The DSC4 accessory is compatible with the installation brackets AMP20.
** = The accessory is not available for models fitted with a Plasmacluster filter.
*** = 24 Volt.
**** = Only for the BV 1-row coil accessory.
***** = PX2C6, PX2 panel in multiple 6-piece pack.
****** = The VCF valve and the BC4 tray cannot be installed together on a single fan coil.

Technical data

Mod.	FCX	17	22	24	32	34	42	44	50	54	62	64	82	84	102
Heating capacity	W (max.)	2490	3400	3950	4975	5850	7400	8600	8620	10100	12920	14300	15140	17100	17020
	W (med.)	2070	2700	3200	4085	4850	6415	6930	7530	8760	10940	11500	13350	14420	15240
	W (min.)	1610	1915	2200	3380	3850	5115	5200	5420	6240	8330	8500	10770	11200	12560
Heating capacity* (water inlet 50°C)	W ***(E)***	1360	2100	2320	3160	3550	4240	5250	4900	6100	6460	7810	7990	10400	9670
Heating capacity (electric resistor)	W	700	950	-	1300	-	1650	-	1950	-	2200	-	2200	-	2200
Water flow rate	l/h	214	292	340	427	503	636	740	741	869	1110	1230	1300	1471	1464
Water pressure drops	kPa	2,8	6,3	4	14,2	8	14,1	21	14,2	22	14,8	22	19,8	30	16,6
Total cooling capacity	W (max.) ***(E)***	1000	1500	1730	2210	2800	3400	4450	4190	4970	4860	6350	7420	8600	7620
	W (med.)	890	1330	1500	2055	2450	2800	3780	3640	4770	4660	5520	5500	7600	7140
	W (min.)	720	1055	1150	1570	2050	2310	2970	2840	3620	3950	4500	4710	6270	6270
Sensible cooling capacity	W (max.) ***(E)***	830	1240	1380	1750	2130	2760	3300	3000	3540	3980	5030	5680	5780	5980
	W (med.)	710	1055	1140	1540	1789	2115	2722	2750	3101	3510	4195	4250	5016	4984
	W (min.)	540	755	828	1100	1441	1635	2079	2040	2281	2825	3330	3450	4013	4263
Water flow rate	l/h	172	258	297	380	482	585	765	721	855	836	1092	1276	1479	1311
Water pressure drops	kPa ***(E)***	2,6	5,8	3	16,6	9	14,3	19,2	19,3	25,9	11,6	13	13,5	22	19,2
Air flow rate	m^3/h (max.)	200	290	290	450	450	600	600	720	720	920	920	1140	1140	1300
	m^3/h (med.)	160	220	220	350	350	460	460	600	600	720	720	930	930	1120
	m^3/h (min.)	110	140	140	260	260	330	330	400	400	520	520	700	700	900
Number of fans	n.	1	1	1	2	2	2	2	2	2	3	3	3	3	3
♪ Sound pressure	dB (A) (max.)	36,5	41,5	42,5	39,5	39,5	42,5	46,5	47,5	47,5	48,5	48,5	53,5	52,5	57,5
	dB (A) (med.)	29,5	34,5	37,5	32,5	32,5	35,5	41,5	42,5	44,5	42,5	42,5	48,5	48,5	52,5
	dB (A) (min.)	22,5	22,5	26,5	25,5	27,5	28,5	32,5	33,5	35,5	33,5	35,5	41,5	42,5	47,5
Sound pressure FCX PO	dB (A) (max.)	-	49,5	49,5	44	44	50	50	50,5	50,5	53,5	53,5	55,5	55,5	-
Sound power FCX PO	dB (A) (max.)	-	58	58	52,5	52,5	58,5	58,5	59	59	62	62	60	64	-
Sound power	dB (A) (max.)***(E)***	45	50	51	48	48	51	55	56	56	57	57	62	61	66
	dB (A) (med.)***(E)***	38	43	46	41	41	44	50	51	53	51	51	57	57	61
	dB (A) (min.)***(E)***	31	31	35	34	36	37	41	42	44	42	44	50	51	56
Water content	l	0,58	0,79	1	1,11	1,5	1,48	1,9	1,48	1,9	2,52	3,4	2,52	3,4	2,52
Max. motor power (W)	FCX P ***(E)***	35	25	33	44	44	57	57	67	67	82	91	106	106	131
	FCX PO	-	54	54	97	97	111	111	82	82	97	97	135	135	-
Max input current (A)	FCX P	0,16	0,12	0,25	0,21	0,45	0,28	0,51	0,35	0,36	0,4	0,48	0,49	0,62	0,58
	FCX PO	-	0,25	0,25	0,45	0,45	0,51	0,51	0,36	0,36	0,48	0,48	0,62	0,62	-
Max. motor power (W)	FCX P	735	975	-	1344	-	1707	-	2017	-	2282	-	2306	-	2331
with electric heater	FCX PO	-	1004	-	1397	-	1761	-	2032	-	2297	-	2335	-	-
Max input current (A)	FCX P	3,2	4,25	-	5,86	-	7,45	-	8,83	-	9,97	-	10,06	-	10,15
with electric heater	FCX PO	-	4,38	-	6	-	7,68	-	8,84	-	10,05	-	10,19	-	-
Coil connections	ø (4R)	-	-	3/4"	-	3/4"	-	3/4"	-	3/4"	-	3/4"	-	3/4"	-
	ø (3R)	1/2"	1/2"	-	1/2"	-	3/4"	-	3/4"	-	3/4"	-	3/4"	-	3/4"
	ø (1R)	1/2"	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"

Power supply = 230V ~ 50Hz

(E) = EUROVENT certificate performances

Performance values refer to the following conditions:

♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

Cooling:
- Room air temperature 27°C D.B. ; 19°C W.B.
- water inlet temperature 7°C; Maximum speed
- Dt water 5°C.
- for medium and low speed, the water flow rate remains the same as at maximum speed.

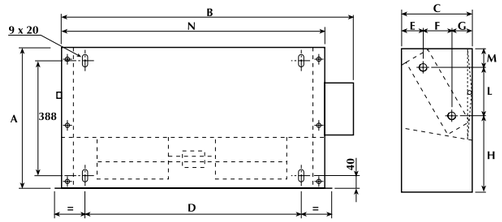
Heating 70°:
room air temperature 20°C D.B.
- maximum speed
  - water inlet temperature 70°C; Dt water 10°C.
- medium and minimum speed:
  - water inlet temperature 70°C;
  - water flow rate as at maximum speed.

Heating 50°:
room air temperature 20°C D.B.
- maximum speed
  - water inlet temperature 50°C;
  - water flow rate as for cooling operation.

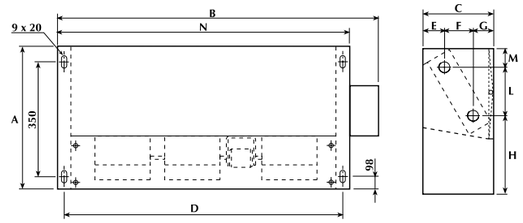
VERSION	AVAILABLE SIZES													
FCX P	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX PV	17	22	24	32	34	42	44	50	54	62	64	82	84	102
FCX PO	-	22	24	32	34	42	44	50	54	62	64	82	84	-
FCX PE	-	22	-	32	-	42	-	50	-	62	-	82	-	102
FCX PPC	-	22	24	32	34	42	44	50	54	62	64	82	84	-

Dimensions (mm)

FCX 17 - 22 / 24 - 32 / 34 - 42 / 44 - 50 / 54

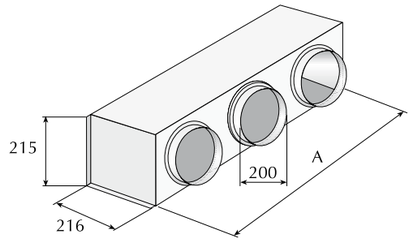


FCX 62 / 64 - 82 / 84 - 102



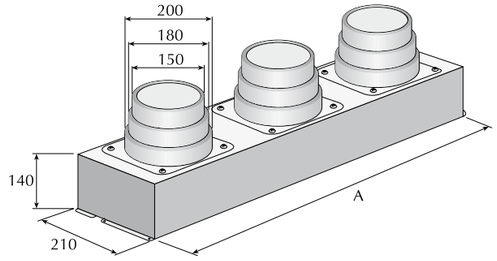
FCX	17	22 / 24	32 / 34	42 / 44	50 / 54	62 / 64	82 / 84	102
A	453	453	453	453	453	558	558	558
B	452	562	793	1013	1013	1147	1147	1147
C	216	216	216	216	216	216	216	216
D	330	440	671	891	891	1102	1102	1102
E	41	41	41	41	41	41	41	41
F	101	101	101	101	101	107	107	107
G	74	74	74	74	74	68	68	68
H	260	260	260	260	260	273	273	273
L	144	144	144	144	144	253	253	253
M	49	49	49	49	49	32	32	32
N	412	522	753	973	973	1122	1122	1122
Weight [Kg]	11	13	18	22	22	33	33	33

PA - INTAKE PLENUM



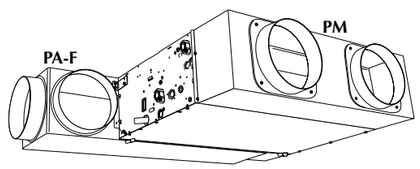
PA	17	22	32	42	62
A	390	500	731	951	1072
Vents	1	2	2	3	4

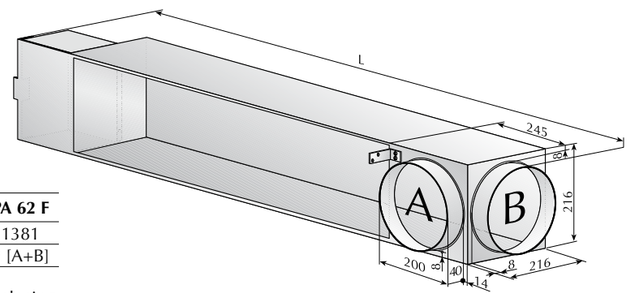
PM - DELIVERY PLENUM



PM	17	22	32	42	62
A	412	522	753	973	1094
Vents	1	2	2	3	4

PA-F - FRONT INTAKE PLENUM





	PA 17 F	PA 22 F	PA 32 F	PA 42 F	PA 62 F
L	658	768	1039	1259	1381
Vents	1 [A]	1 [A]	2 [A+B*]	2 [A+B*]	2 [A+B]

B* = Closed inlet vent, to use it remove the push-out closing component.

Cod.: SFCXPUY.12 / 1101

VEC

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

Variable Multi Flow

VMF



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.

- Available in 4 sizes
- 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.
- **Control panel and VMF system**: the features of the control panels are described in the relevant card.

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.
- **PCR1**: galvanised sheet metal protection for the commands and the electric resistor.
- **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 FMT20AW; 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 FMT20AW. Two SWA probes may be simultaneously connected to the panel FMT20AW.
- **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.

	VEC			
Accessory	**20**	**30**	**40**	**50**
VEC20GL	✔			
VEC30GL		✔		
VEC40GL			✔	✔
FMT10	✔	✔	✔	✔
FMT20AW	✔	✔	✔	✔
KTLP	✔	✔	✔	✔
PX2	✔	✔	✔	✔
PXAE	✔	✔	✔	✔
PXAR	✔	✔	✔	✔
WMT05	✔	✔	✔	✔
WMT10	✔	✔	✔	✔

		VEC			
Accessory		**20**	**30**	**40**	**50**
AMP		✔	✔	✔	✔
AMP	20	✔	✔	✔	✔
BC	5	✔	✔	✔	✔
	122	✔			
BV	132		✔		
	142			✔	✔
DSC	4	✔	✔	✔	✔
SIT	3	✔	✔	✔	✔
SIT	5	✔	✔	✔	✔
PCR1		✔	✔	✔	✔

		VEC			
Accessory		**20**	**30**	**40**	**50**
SW	3	✔	✔	✔	✔
SWA		✔	✔	✔	✔
VCF	41	✔	✔		
	42			✔	✔
	44*	✔	✔	✔	✔
	4124	✔	✔		
	4224			✔	✔
	4424*	✔	✔	✔	✔
VCFD	1	✔	✔		
	2			✔	✔
	4*	✔	✔	✔	✔
	124	✔	✔		
	224			✔	✔
	424*	✔	✔	✔	✔

* = only for accessory coil BV 1R

Technical data

Mod. VEC		**20**	**30**	**40**	**50**
Total cooling capacity	W (max)	1320	1950	2985	3610
	W (med)	1085	1645	2470	3170
	W (min)	805	1370	1985	2350
Sensible cooling capacity	W (max)	1085	1535	2410	2595
	W (med)	885	1285	1980	2275
	W (min)	640	1055	1580	1680
Water flow rate	l/h	227	335	514	621
Water pressure drops	kPa	4,6	13,3	11,3	14,8
Air flow rate	m^3/h (max)	247	383	511	613
	m^3/h (med)	194	309	406	529
	m^3/h (min)	130	241	306	371
Number of fans	n.	1	2	2	2
♪ Sound pressure	dB (A) (max)	39,5	36,5	40,0	44,5
	dB (A) (med)	33,5	31,5	34,5	41,5
	dB (A) (min)	26,5	26,5	29,5	34,5
Sound power	dB (A) (max)	48,0	45,0	48,5	53,0
	dB (A) (med)	42,0	40,0	43,0	50,0
	dB (A) (min)	35,0	35,0	38,0	43,0
Water content	l	0,79	1,11	1,48	1,48
Max. motor power	W	25	44	57	67
Max. input current	A	0,12	0,21	0,28	0,35
Max. power with electric resistor (RX)	W	975	1344	1707	2017
Input current with electric resistor	A	4,25	5,86	7,45	8,83
3-row coil connections	ø	1/2"G	1/2"G	3/4"G	3/4"G
1-row coil connections (BV)	ø	1/2"G	1/2"G	1/2"G	1/2"G

Heating mode: see notes and warnings in the technical booklet.

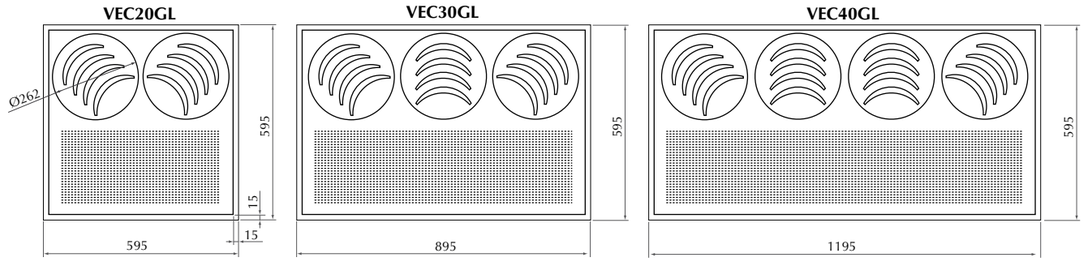
Electricity supply = 230V ~ 50Hz

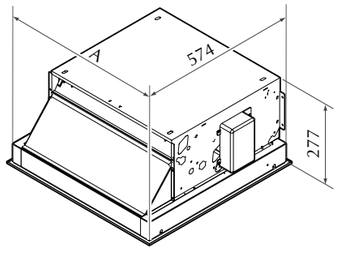
(E) = EUROVENT certificate performance

Performance values refer to the following conditions:
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m^3 ; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

Cooling:
- room air temperature 27°C D.B. ; 19°C W.B.
- inlet water temperature 7°C
- Δt water 5°C

Dimensions (mm)





Mod.		**VEC 020 VEC 20GL**	**030 30GL**	**040 40GL**	**050 40GL**
A	mm	574	874	1174	1174
Weight (VEC)	kg	15,5	20,6	24,7	24,7
Weight (VEC GL)	kg	3,7	5,7	7	7

Cod.: SVECUY.02 / 1007

Omnia HL

Fan coils
Universal installations for residential applications



Plasmacluster
(only for Omnia HL PC and PCM)

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

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

Features

- HL (High Line) fan coils for both horizontal and vertical installation
- 4 sizes and 10 versions:
  HL: white body with switch
  HL M: metallic grey body with switch
  HL C: white body with electronic thermostat
  HL CM: metallic grey body with electronic thermostat
  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.
- **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 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 FMT20AW 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 FMT20AW panel. Two SWA probes can be connected simultaneously to the FMT20AW panel.
- **VCH**: Kit comprising motorized 3-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.

Compatibility of accessories

Omnia HL	11	16	26	36	Versioni
AMP 10	✔	✔	✔	✔	All except S, SM
BC 10	✔	✔	✔	✔	All
BC 20	✔	✔	✔	✔	All
DSC5	✔	✔	✔	✔	All
FMT10	✔	✔	✔	✔	S, SM
FMT20AW	✔	✔	✔	✔	S, SM
PCH/PCHM	✔	✔	✔	✔	All
PX2 • PX2C6	✔	✔	✔	✔	S, SM
PXAE	✔	✔	✔	✔	S, SM
SIT 3	✔	✔	✔	✔	S, SM
SIT 5	✔	✔	✔	✔	S, SM
SW3	✔	✔	✔	✔	S, SM
SWA	✔	✔	✔	✔	S, SM
VCH	✔	✔	✔	✔	All except L, LM
WMT05	✔	✔	✔	✔	S, SM
WMT10	✔	✔	✔	✔	S, SM
ZH1/ZH1B	✔	✔	✔	✔	All
ZH1M/ZH1MB	✔	✔	✔	✔	All

PX2C6, PX2 panel in multiple 6-piece pack.

Main features

- **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.

Technical data

Mod. Omnia		HL 11	HL 16	HL 26	HL 36
Heating capacity	W (max.)	2010	2910	4620	5940
	W (med.)	1460	2120	3830	4870
	W (min.)	1060	1540	2890	3530
Heating capacity (water inlet 50°C)*	W ***(E)***	1150	1700	2750	3540
Water flow rate	l/h	173	250	397	511
Water pressure drop	kPa	1,6	3,7	10,5	7,4
Total cooling capacity	W (max.) ***(E)***	840	1200	2030	2830
	W (med.)	650	950	1780	2310
	W (min.)	490	690	1420	1730
Sensible cooling capacity	W (max.) ***(E)***	700	990	1640	2040
	W (med.)	530	750	1370	1790
	W (min.)	390	520	1050	1280
Water flow rate	l/h	144	206	349	487
Water pressure drop	kPa ***(E)***	1,9	4,8	11,0	9,5
Air flow rate	m^3/h (max.)	180	240	350	460
	m^3/h (med.)	120	160	270	350
	m^3/h (min.)	80	110	190	240
Fans	n.	1	1	2	2
♪ Sound pressure	dB (A) (max.)	37,5	39,5	39,5	39,5
	dB (A) (med.)	28,5	34,5	34,5	32,5
	dB (A) (min.)	22,5	25,5	26,5	25,5
Sound power	dB (A) (max.) ***(E)***	46,0	48,0	48,0	48,0
	dB (A) (med.) ***(E)***	37,0	43,0	43,0	41,0
	dB (A) (min.) ***(E)***	31,0	34,0	35,0	34,0
Water contents	l	0,4	0,5	0,8	1,1
Max. motor power	W ***(E)***	18	32	35	42
Max. input current	A	0,09	0,15	0,18	0,22
Coil connections	ø	1/2″	1/2″	1/2″	1/2″

Power supply = 230V ~ 50Hz

(E) = Eurovent certified performance

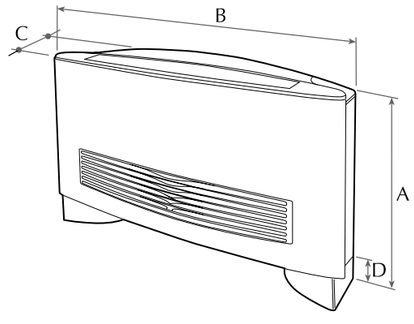
Performance values refer to the following conditions:
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

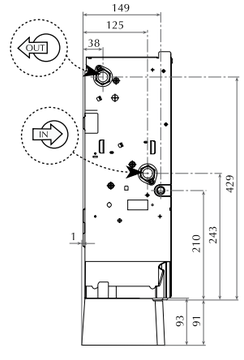
Cooling:
- room air temperature 27 °C D.B. , 19 °C W.B.
- water inlet temperature 7 °C ; max. speed
- Dt water 5 °C
- for medium and low speed, water flow rate remains same as at maximum speed

Heating:
- room air temperature 20 °C
- water inlet temperature 70 °C ; maximum speed;
- Dt water 10 °C;
- for medium and low speed, water flow rate remains same as at maximum speed

Heating*:
- room air temperature 20 °C
- water inlet temperature 50 °C
- maximum speed
- water flow same as in cooling operation

Dimensions (mm)





Mod Omnia		HL 11	HL 16	HL 26	HL 36
Height	A	600	605	615	623
Width	B	640	750	980	1200
Depth	C	187	189	191	198
Height	***D***	93	93	93	93
Weight	[kg]	13,6	14,6	17,6	20,6

Cod.: SOHLUY.14 / 1007

AERMEC

Omnia UL

Fan coils
Universal installations for residential applications

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com



Omnia UL-P

Variable Multi Flow
VMF



Omnia UL

Plasmacluster
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
- 4 sizes and 5 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
  UL-P: ceiling mounting version without cabinet. Compatible with VMF System
- EUROVENT certified
- 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.
- **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.
- **SWA**: External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT20AW 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 FMT20AW panel. Two SWA probes can be connected simultaneously to the FMT20AW panel.
- **VCH**: Kit comprising motorized 3-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.

Compatibility of accessories

Omnia UL	11	16	26	36	Versions
AMP 10	✔	✔	✔	✔	All except P, S
BC 10	✔	✔	✔	✔	All
BC 20	✔	✔	✔	✔	All
DSC5	✔	✔	✔	✔	All
FMT10	✔	✔	✔	✔	S, P
FMT20AW	✔	✔	✔	✔	S, P
GU	10	15	25	35	All except P
PCU	10	15	25	35	All except P
PX2•PX2C6	✔	✔	✔	✔	S, P
PXAE	✔	✔	✔	✔	S, P
PXLM	✔	✔	✔	✔	S
SIT 3	✔	✔	✔	✔	S, P
SIT 5	✔	✔	✔	✔	S, P
SW3	✔	✔	✔	✔	All
SWA	✔	✔	✔	✔	All
VCH	✔	✔	✔	✔	All
WMT05	✔	✔	✔	✔	S, P
WMT10	✔	✔	✔	✔	S, P
ZU	✔	✔	✔	✔	All except P

PX2C6, PX2 panel in multiple 6-piece pack.

Main features

- **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.

Technical data

Mod. Omnia		UL 11	UL 16	UL 26	UL 36
Heating capacity	W (max.)	2010	2910	4620	5940
	W (med.)	1460	2120	3830	4870
	W (min.)	1060	1540	2890	3530
Heating capacity (water inlet 50°C)*	W (E)	1150	1700	2750	3540
Water flow rate	l/h	173	250	397	511
Water pressure drop	kPa	1,6	3,7	10,5	7,4
Total cooling capacity	W (max.) (E)	840	1200	2030	2830
	W (med.)	650	950	1780	2310
	W (min.)	490	690	1420	1730
Sensible cooling capacity	W (max.) (E)	700	990	1640	2040
	W (med.)	530	750	1370	1790
	W (min.)	390	520	1050	1280
Water flow rate	l/h	144	206	349	487
Water pressure drop	kPa (E)	1,9	4,8	11	9,5
Air flow rate	m^3/h (max.)	180	240	350	460
	m^3/h (med.)	120	160	270	350
	m^3/h (min.)	80	110	190	240
Fans	n.	1	1	2	2
♪ Sound pressure	dB (A) (max.)	37,5	39,5	39,5	39,5
	dB (A) (med.)	28,5	34,5	34,5	32,5
	dB (A) (min.)	22,5	25,5	26,5	25,5
Sound power	dB (A) (max.) (E)	46	48	48	48
	dB (A) (med.) (E)	37	43	43	41
	dB (A) (min.) (E)	31	34	35	34
Water contents	l	0,4	0,5	0,8	1,1
Max. motor power	W (E)	18	32	35	42
Max. input current	A	0,09	0,15	0,18	0,22
Coil connections	ø	1/2″	1/2″	1/2″	1/2″

Power supply = 230V ~ 50Hz.

(E) = Eurovent certified performance

Performance values refer to the following conditions:

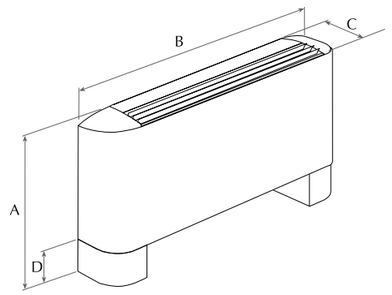
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85m^3 ; reverberation time t = 0.5s ; direction factor Q = 2; distance r = 2.5m

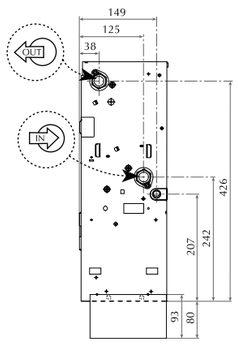
Cooling:
- room air temperature 27°C D.B. ; 19°C W.B.
- water inlet temperature 7°C ; max. speed
- Δt water 5°C
- for medium and low speed, water flow rate remains same as at maximum speed

Heating:
- room air temperature 20 °C
- water inlet temperature 70 °C ; maximum speed
- Δt water 10 °C
- for medium and low speed, water flow rate remains same as at maximum speed

Heating*:
- room air temperature 20 °C
- water inlet temperature 50 °C
- maximum speed
- water flow same as in cooling operation

Dimensions (mm)





Mod Omnia		UL 11	UL 16	UL 26	UL 36
Height	A	606	606	606	606
	D	93	93	93	93
Width	B	640	750	980	1200
Depth	C	173	173	173	173
Weight	[kg]	12,5	13,5	16,5	19,5

Cod.: SOULUY.14 / 1007

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

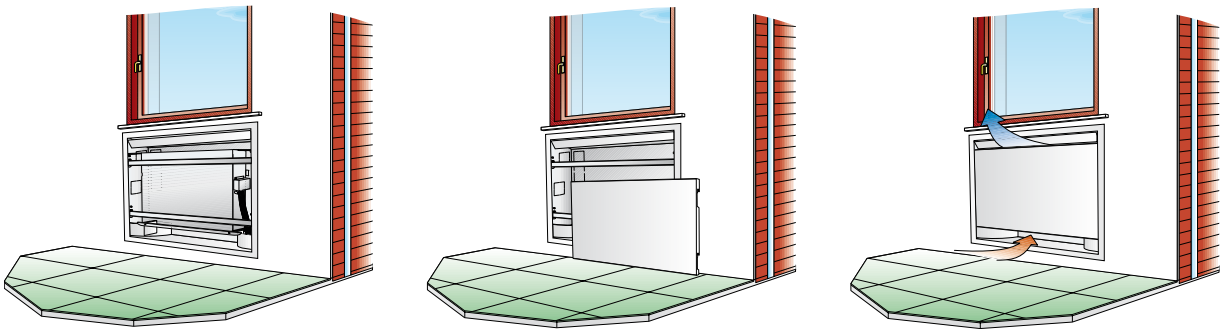
Features

- 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

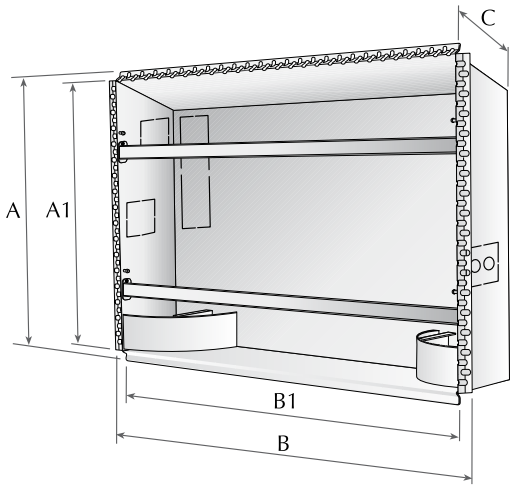
VentilCassaforma CHF + FCX P - FCX PV - FCXI P combination					
VentilCassaforma	CHF 17	CHF 22	CHF 32	CHF 42	CHF 62
Fan coil	FCX 17 P FCX 17 PV	FCX 22 P FCX 22 PV	FCX 32 P FCX 32 PV	FCX 42 P - 50 P FCX 42 PV - 50 PV	FCX 62 P - 82 P - 102 P FCX 62 PV - 82 PV - 102 PV
		FCX 24 P FCX 24 PV	FCX 34 P FCX 34 PV	FCX 44 P - 54 P FCX 44 PV - 54 PV	FCX 64 P - 84 P FCX 64 PV - 84 PV
		FCXI 20 P	FCXI 30 P	FCXI 40 P - 50 P	FCXI 80 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

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

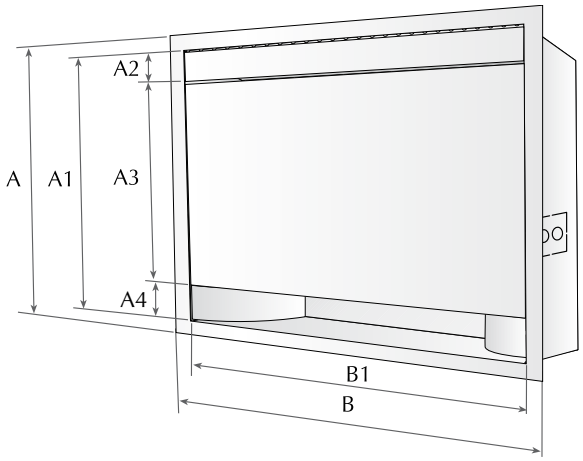
CHF		**17**	**22**	**32**	**42**	**62**
Height	A	728	728	728	728	833
	A1	684	684	684	684	789
Width	B	732	842	1073	1293	1414
	B1	684	794	1025	1245	1366
Depth	C	240	240	240	240	240



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



Cod.: SVC2UY.05 / 1201

FCW

Fan coil with ioniser
Wall installation



TLW accessory



Features

- EUROVENT certified
- 3-speed cross flow fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- Air outlet deflectors with horizontal adjustment facility
- Motorized louver controllable from remote handset for vertical adjustment of outlet air flow direction
- Local control facility
- Microprocessor control
- Timer for hourly operation programming and timer On LED
- Program for operation in automatic mode, cooling, heating, ventilation and air ionising
- Automatic start after black-out
- Ioniser (air purification system by negative ions). Only for FCW 20 and 30.
- Easy installation and maintenance
- Air filter can be easily removed and cleaned
- Full compliance with safety regulations

Accessories

- **TLW**: Infrared remote handset with LCD display for full control of all appliance functions. A series of machines can be controlled by a single remote control unit.
- **VCW**: Using this accessory it is possible to use a three-way valve to intercept water flow. The kit includes a three-way valve, connection pipes, and a support template.
- **VCWC**: Kit consisting of Support Frame and Assembly Screws.
- **VCWV**: Kit consisting of one Three-Way Valve and its Unions.

Compatibility of accessories

FCW	20	30	40
TLW	✔	✔	✔
VCW 1	✔	✔	
VCW 2			✔
VCW 1C	✔	✔	
VCW 2C			✔
VCW 1V	✔	✔	
VCW 2V			✔

Warning:
Note that condensation may form on the exterior of the unit if cold water circulates through the coil while the fan is off for prolonged periods of time, so it is advisable to fit VCW.

Technical data

Mod.		FCW 20	FCW 30	FCW 40
Heating capacity	W (max.)	4800	6600	10200
	W (med.)	4150	5900	8600
	W (min.)	3400	5050	7000
Heating capacity (water inlet 50°C)	W (E)	3000	3800	6100
Water flow rate	l/h	413	570	877
Water pressure drop	kPa	17,8	25	22
Total cooling capacity	W (max.) (E)	2100	2900	4600
	W (med.)	1900	2700	4150
	W (min.)	1600	2500	3700
Sensible cooling capacity	W (max.) (E)	1920	2240	3600
	W (med.)	1470	2090	3100
	W (min.)	1200	1700	2650
Water flow rate	l/h	361	500	791
Water pressure drop	kPa (E)	20,1	31,3	24
Air flow rate	m^3/h (max.)	440	540	890
	m^3/h (med.)	350	440	690
	m^3/h (min.)	270	370	530
Fans	n.	1	1	1
♪ Sound pressure	dB (A) (max.)	44,5	45,5	47,5
	dB (A) (med.)	39,5	41,5	42,5
	dB (A) (min.)	34,5	37,5	37,5
Sound power	dB (A) (max.) (E)	53	54	56
	dB (A) (med.) (E)	48	50	51
	dB (A) (min.) (E)	43	46	46
Water contents	l	0,45	0,68	1,7
Max. motor power	W (E)	27	30	50
Max. input current	A	0,12	0,13	0,22
Coil connections	ø	1/2″	1/2″	1/2″

Power supply = 230V ~ 50Hz

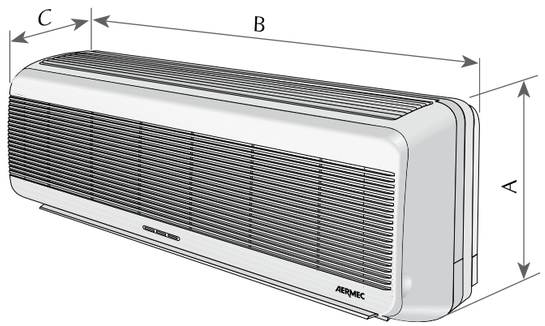
(E) = EUROVENT certified performance

Performance values refer to the following conditions:
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

Cooling:
- room air temperature 27 °C D.B., 19 °C W.B.;
- water inlet temperature 7 °C; maximum speed;
- Dt water 5 °C.
- for medium and low speed, water flow rate remains same as at maximum speed.

Heating:
- room air temperature 20 °C;
- water inlet temperature 70 °C; maximum speed;
- Dt water 10 °C;
- for medium and low speed, water flow rate remains same as at maximum speed.

Dimensions (mm)



		FCW 20	FCW 30	FCW 40
Height	A	270	270	320
Width	B	795	795	1200
Depth	C	178	178	210
Weight	[kg]	10,8	11,4	20

Cod.: SFCWUY.07 / 0603

FCW

Fan coil
Wall installation

Accessory TLW1





Accessory PFW

Three-way valve inside the unit as standard



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: FC / 2 / H
the products are present on the site
www .eurovent-certification. com

Features

- **EUROVENT certified**
- **Three-way valve incorporated inside**
- Color PANTONE Cool Gray 1C
- IR remote control with support for wall installation, the remote control can be used to control all the unit's functions (TLW1 accessory)
- Remote wired command panel with liquid crystal display makes it possible to control the unit's main functions, wall installation, four-metre cable (PFW accessory)
- Three-speed tangential ventilating assembly
- Maximum noiselessness
- Top-design appearance with rounded lines
- Air outlet deflectors with horizontal adjustment facility
- Motor driven deflector fin that can be worked from a remote control and a remote panel for the vertical directioning of the output air with five fixed positions and continuous oscillation.
- Microprocessor control
- Timer for on/off programming
- Automatic cooling, heating, ventilation and dehumidification function programming
- Sleep function only with TLW1 remote control
- Automatic season change
- Automatic start after black-out
- Easy installation and maintenance
- Air filter can be easily removed and cleaned
- Full compliance with safety regulations.

Accessories

- **TLW1 remote control (obligatory accessory):**
- Accessory essential for the functioning of the fan coil, an alternative to the PFW wired remote command panel, it is not possible to use the two remote control models at the same time.
- Infrared ray type with liquid crystal display for the control of all the functions of the unit, the remote control is powered by two 1.5V mini stick batteries of the R03 AAA type and works optimally up to seven meters from the unit.
- It is supplied separately from the fan coil because a single remote control can command more than one fan coil.
- Using the remote control, you can set all the functioning parameters of the device and they are shown on a crystal liquid display, thereby making programming easier.
- The remote control is fitted with a support so it can be hung on the wall and it is therefore possible to carry out the required operations without removing it, it must be installed at a point on the wall that is easy to reach and not exposed to sources of heat, steam or direct sunlight and that is at least a meter from televisions or other electronic apparatus.

- **PFW wired remote command panel (obligatory accessory):**
- Accessory essential for the functioning of the fan coil, an alternative to the TLW1 remote control, it is not possible to use the two remote control models at the same time:
- The PFW can only control one fan coil.
- The panel must be installed on the wall and connected to the fan coil with the four-meter-long cable supplied.
- Using the PFW, it is possible to set the main unctioning parameters of the device, these parameters are shown on a liquid crystal display thereby making programming easier.

Technical data

Mod.		FCW 21	FCW 31	FCW 41
Heating capacity	W (max.)	4000	5200	7600
	W (med.)	3600	4600	6800
	W (min.)	3000	3950	5700
Heating capacity (water inlet 50°C)	W (max.) **(E)**	2500	3300	4500
Water flow rate	l/h	344	447	654
Water pressure drop (max. speed)	kPa	18,5	23	23
Total cooling capacity	W (max.) **(E)**	1900	2700	3800
	W (med.)	1700	2200	3450
	W (min.)	1450	1850	3000
Sensible cooling capacity	W (max.) **(E)**	1550	2150	2850
	W (med.)	1350	1700	2500
	W (min.)	1100	1400	2150
Water flow rate	l/h	327	464	654
Water pressure drop (max. speed)	kPa **(E)**	20	27	31,4
Air flow rate	m3/h (max.)	380	470	540
	m3/h (med.)	280	360	440
	m3/h (min.)	220	295	370
Fans	n°.	1	1	1
♪ Sound pressure	dB (A) (max.)	42,5	43	43,5
	dB (A) (med.)	38,5	35,5	38,5
	dB (A) (min.)	31	28,5	35,5
Sound power	dB (A) (max.) **(E)**	51	51,5	52
	dB (A) (med.) **(E)**	47	44	47
	dB (A) (min.) **(E)**	39,5	37	44
Water contents	l	0,7	0,8	1,6
Max. motor power	W **(E)**	23	25	43,7
Max. input current	A	0,1	0,11	0,19
Coil connections	ø	1/2″ F	1/2″ F	1/2″ F

Power supply = 230V ~ 50Hz

(E) = EUROVENT certified performance

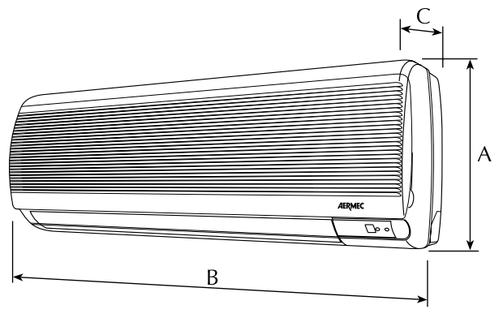
Performance values refer to the following conditions:

♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

Cooling:
- room air temperature 27 °C D.B., 19 °C W.B.;
- maximum speed:
  - water inlet temperature 7 °C; Dt water 5 °C.
- medium and low speed:
  - water inlet temperature 7 °C;
  - water flow rate remains same as at maximum speed.

Heating:
room air temperature 20 °C B.S.;
- maximum speed:
  - water inlet temperature 70 °C; Dt water 10 °C;
- medium and low speed:
  - water inlet temperature 70 °C;
  - water flow rate remains same as at maximum speed.
- maximum speed (water inlet temperature 50 °C):
  - water inlet temperature 50 °C;
  - water flow rate remains same as at maximum speed.

Dimensions (mm)



		FCW 21	FCW 31	FCW 41
Height	A	298	305	360
Width	B	880	990	1170
Depth	C	180	180	210
Weight	kg	9	10	19

Cod.: SFCW2UY.02/1104

FCL

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

Models:
FCL 32 , FCL36 , FCL42 , FCL62 - FCL72
FCL 34 , FCL38 , FCL44 , FCL64

Models:
FCL 82 , FCL102 , FCL122
FCL 84 , FCL104 , FCL124

Aermec participate in the EUROVENT program: FC / 2 / H, FC / 4 / H the products are present on the site www .eurovent-certification. com

Variable Multi Flow®

VMF



GLL10 - GLL10M - GLL10R - GLL10N
White: RAL 9010



Remote Control included for GLL10M
GLL10R - GLL20R



GLL20 - GLL20R - GLL20N
White: RAL 9010

FCL with accessory **FCLMC**



FCLMC
White: RAL 9010

- **4 CONFIGURATIONS ON ONE CASSETTE–TYPE FAN COIL:**
  – WITH MOTORISED LOUVERS THAT CAN BE ORIENTED VIA THE REMOTE CONTROL (GLLIOM ONLY)
  – WITH LOUVERS THAT CAN BE ORIENTED MANUALLY, REMOTE CONTROL
  – WITH LOUVERS THAT CAN BE ORIENTATED MANUALLY, WALL–MOUNTED CONTROL PANEL
  – WITH MANUALLY ADJUSTABLE FINS, VMF SYSTEM ELECTRONIC THERMOSTAT, WALL–MOUNTED CONTROL PANEL (VMF–E4), COMPLETE INTEGRATION WITH THE VMF SYSTEM (ONLY WITH GLLION AND GLL2ON)
- **STANDARD INTERNAL 3–WAY VALVE, WITH FAST CONNECTION ACTUATOR AND VISUAL POSITION SIGNALLING**
- **VERSION WITH 2–WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSION WITHOUT VALVES**
- **HEAT EXCHANGE COIL WITH SHAPED PROFILE AND ENHANCED SURFACE**
- **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.
- 3 configurations on one cassette-type fan coil:
  - louvers that can be oriented by means of a remote control and electronic control if coupled with the accessory GLL10M;
  - with remote control, louvers that can be oriented manually and by means of electronic control if coupled with the accessory GLL10R or GLL20R;
  - with louvers that can be oriented manually if coupled with the accessory GLL10 or GLL20, also requires a wired control panel (accessory).
- High design aesthetics.
- Grille dimensions perfectly integrable in standard suspended ceiling panels of 600x600mm and 840x840mm for the most powerful units.
- 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

Compulsary GLL accessories, essential for unit operation:

- **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 panels and VMF System**: the characteristics are described on the appropriate card.

Accessories:

- **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 and FCLI remain unvaried.
- **FEL10** : electrostatically pre-charged air filter, regenerated 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.
- **RXLE - RXLE20** : electric heater for heating, can be installed on the single-fan FCL units. Requires GLL-M or GLL-R.
- **SIT 3-5** : Thermostat Interface Cards. They allow the creation of a network of fan coils (max. 6) 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); transmits the thermostat commands to the network of fan coils fitted with SIT3.

- **SW3** : Minimum water temperature probe, to be used with electronic PXAE thermostats.
- **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 SWA probe accessory for FMT20AW panels. Detects the ambient air temperature if connected to the connector (A); the probe in the panel will be automatically disabled. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) (Length L = 6m)
- **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.

Compatibility of accessories

Mod. FCL	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
GLL10	✔	✔	✔	✔	✔	✔	✔	✔	✔						
GLL10M**	✔	✔	✔	✔	✔	✔	✔	✔	✔						
GLL10R**	✔	✔	✔	✔	✔	✔	✔	✔	✔						
GLL10N**	✔	✔	✔	✔	✔	✔	✔	✔	✔						
GLL20										✔	✔	✔	✔	✔	✔
GLL20R**										✔	✔	✔	✔	✔	✔
GLL20N**										✔	✔	✔	✔	✔	✔
FCLMC10	✔	✔	✔	✔	✔	✔	✔	✔	✔						
FCLMC20										✔	✔	✔	✔	✔	✔
FEL10	✔	✔	✔	✔	✔	✔	✔	✔	✔						
KFL	✔	✔	✔	✔	✔	✔	✔	✔	✔						
KFL20***										✔	✔	✔	✔	✔	✔
KFLD	✔	✔	✔	✔	✔	✔	✔	✔	✔						
KFLD20***										✔	✔	✔	✔	✔	✔
RXLE**	✔		✔		✔		✔		✔						
RXLE20**										✔		✔		✔	
SW3*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SW4**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SWA*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VHL1		✔		✔		✔		✔							
VHL20											✔		✔		✔
VHL2		✔		✔		✔		✔							
VHL22											✔		✔		✔
SIT 3*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SIT 5*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
FMT10*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
FMT20AW*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PX*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PX2*- PX2C6****	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PXAE*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
WMT10*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E4*****	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

* Accessories that can only be used in combination with GLL10 and GLL20 grilles.
** SW4 mandatory with GLL_M, GLL_R, GLL_N
*** A maximum of three KFL20 / KFL20D can be assembled on a single unit
**** PX2C6 = Multiple package of n°6 “PX2” control panels
***** Accessories that can only be used in combination with the GLL10N and GLL20N grilles for individual units or network master

Technical data

Mod. FCL	2-pipe versions		32	36	42	62	72	82	102	122
Heating capacity* 50°C ***(E)***	vel. (max)	W	2380	3750	4950	6250	6750	7100	10600	13000
Water flow rate* 50°C	vel. (max)	l/h	327	516	679	857	939	1032	1548	1892
Pressure drops* (VL) 50°C ***(E)***	vel. (max)	kPa	9	14	23	32	38	23	25	34
Total cooling capacity ***(E)***	vel. (max.)	W	1900	3000	3950	4980	5460	6000	9000	11000
Sensible cooling capacity ***(E)***	vel. (max.)	W	1520	2400	3160	3810	4100	4200	6660	8470
Water flow rate	vel. (max.)	l/h	327	516	679	857	939	1032	1548	1892
Pressure drops (VL) ***(E)***	vel. (max.)	kPa	10	15	25	36	43	25	28	38
Air flow rate ***(E)***	vel. 4	m³/h	-	-	700	880	900	1100	1350	1750
	vel. 3	m³/h	600	600	530	660	680	830	1010	1350
	vel. 2	m³/h	410	410	360	500	520	680	830	1100
	vel. 1 (min)	m³/h	300	300	260	380	400	460	560	750
Fans		n.	1	1	1	1	1	1	1	1
Sound power ***(E)***	vel. (max.)	dB(A)	46	46	53	61	63	50	54	60
Sound pressure	vel. 4	dB(A)	-	-	44	52	54	41	45	51
	vel. 3	dB(A)	37	37	37	45	47	36	39	45
	vel. 2	dB(A)	29	29	29	38	40	34	36	41
	vel. 1 (min.)	dB(A)	26	26	26	32	34	30	31	35
Heat exchanger water content		l	1,2	1,5	1,5	2,1	2,1	3	4,5	4,5
Water connections		ø Gas	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″
Kvs (standard version 3R valve)			2,5	2,5	2,5	2,5	2,5	4	4	4
Input power ***(E)***	(max.)	W	45	45	75	83	93	150	155	175
Input current	(max.)	A	0,22	0,22	0,33	0,37	0,4	0,70	0,69	0,75
Starting current		A	0,66	0,66	0,99	1,11	1,2	2,10	2,07	2,25

Mod. FCL	4-pipe versions		34	38	44	64	84	104	124
Heating capacity 70°C ***(E)***	vel. (max)	W	2600	2600	3070	3800	8500	10000	12500
Water flow rate 70°C	vel. (max)	l/h	224	224	264	327	731	860	1075
Pressure drops 70°C (VL) ***(E)***	vel. (max)	kPa	11	11	14	21	14	19	29
Total cooling capacity ***(E)***	vel. (max.)	W	1900	2770	3650	4610	6000	7200	8800
Sensible cooling capacity ***(E)***	vel. (max.)	W	1520	2240	2920	3530	4200	5300	6770
Water flow rate	vel. (max.)	l/h	327	476	628	793	1032	1238	1514
Pressure drops (VL) ***(E)***	vel. (max.)	kPa	10	13	22	31	25	26	38
Air flow rate ***(E)***	vel. 4	m³/h	-	-	700	880	1100	1350	1750
	vel. 3	m³/h	600	600	530	660	830	1010	1350
	vel. 2	m³/h	410	410	360	500	680	830	1100
	vel. 1 (min)	m³/h	300	300	260	380	460	560	750
Fans	n.		1	1	1	1	1	1	1
Sound power ***(E)***	vel. (max.)	dB(A)	46	46	53	61	50	54	60
Sound pressure	vel. 4	dB(A)	-	-	44	52	41	45	51
	vel. 3	dB(A)	37	37	37	45	36	39	45
	vel. 2	dB(A)	29	29	29	38	34	36	41
	vel. 1 (min.)	dB(A)	26	26	26	32	30	31	35
Heat exchanger water content	l		1,2	1,5	1,5	2,1	3	4,5	4,5
Heat exchanger water content (hot circuit)	l		0,3	0,5	0,5	0,6	1,5	1,5	1,5
Water connections	ø Gas		3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″
Water connections (hot circuit)	ø Gas		1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″
Kvs (standard version 3R valve)			2,5	2,5	2,5	2,5	4	4	4
Kvs (hot circuit valve)			1,6	1,6	1,6	1,6	2,5	2,5	2,5
Input power ***(E)***	(max.)	W	45	45	75	83	150	155	175
Input current	(max.)	A	0,22	0,22	0,33	0,37	0,70	0,69	0,75
Starting current		A	0,66	0,66	0,99	1,11	2,10	2,07	2,25

Power supply = 230V ~ 50Hz

(E) = EUROVENT certificate performances

The performances are the same for all the configurations:
FCL (standard), FCL V2 and FCL VL.

Performance values refer to the following conditions:

♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

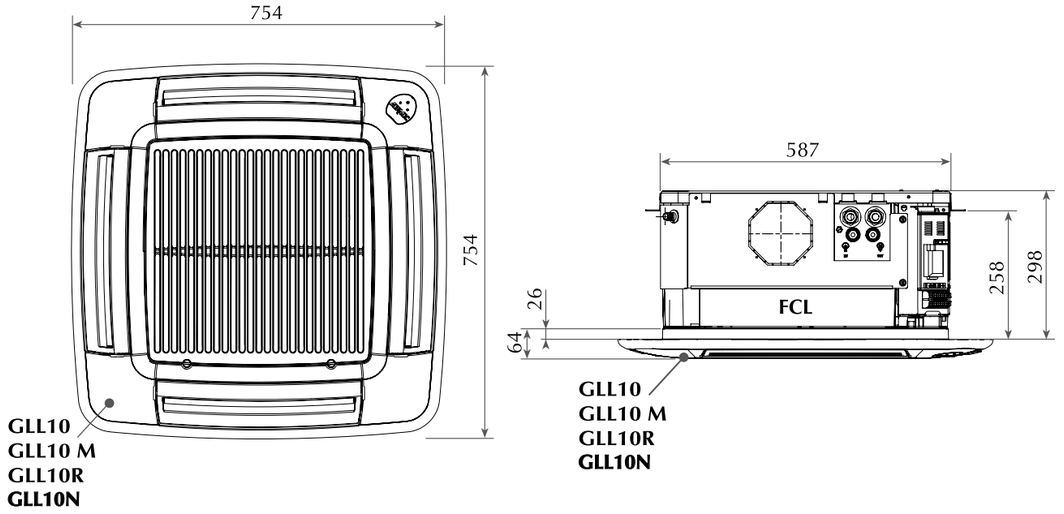
Cooling:
- room air temperature 27°C B.S. ; 19°C B.U.
- inlet water temperature 7°C ; maximum speed
  Δt water 5°C

Heating
- room air temperature 20°C
- inlet water temperature 70°C ; Dt water 10°C
- maximum speed
- water flow rate as in cool mode

Heating *:
- oom air temperature 20°C
- inlet water temperature 50°C
- maximum speed
- water flow rate as in cool mode

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

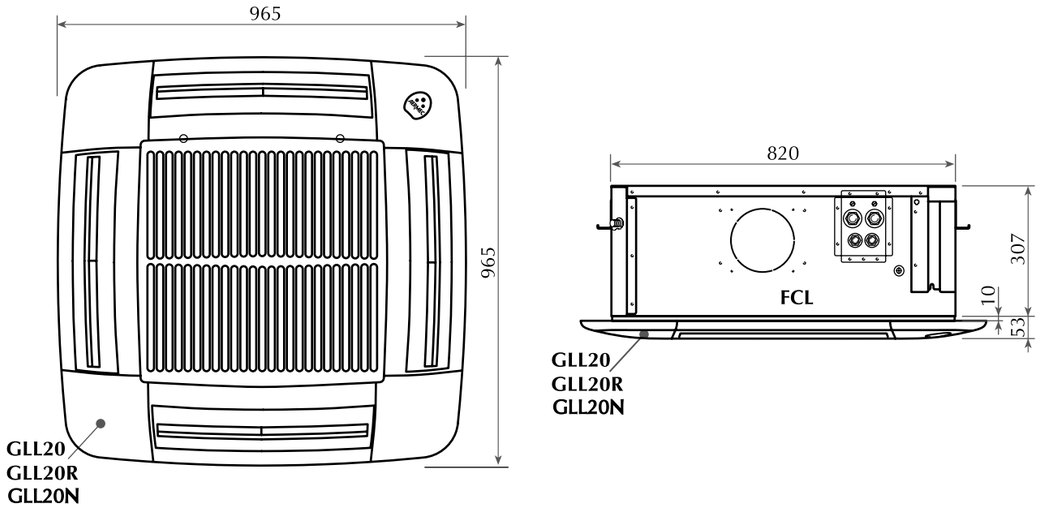


Mod. FCL		32	34	36	38	42	44	62	64	72
Weight	kg	20,5	21	20,5	21	20,5	21	22	22,5	22,5

Mod. FCL		32 V2	34 V2	36 V2	38 V2	42 V2	44 V2	62 V2	64 V2	72 V2
Wheigt	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

Cod.: SFCLUY.08 / 1107

FCLI

Cassette-type fancoils with Brushless Inverter motor
Continuous 0-100% air flow rate regulation
Ceiling and false ceiling installation, cooling power from 1900 up to 11000W

Aermec
participate in the EUROVENT program: FC / 2 / H, FC / 4 / H the products are present on the site www .eurovent-certification. com

Variable Multi Flow
VMF

Models:
FCLI32 , FCLI42 , FCLI62
FCLI34 , FCLI44 , FCLI64



GLLI10 - GLLI10N
White: RAL 9010

Models:
FCLI82 , FCLI122 , FCLI124



GLLI20 - GLLI20N
White: RAL 9010

FCLI with accessory **FCLMC**



FCLMC
White: RAL 9010

The future is Inverter

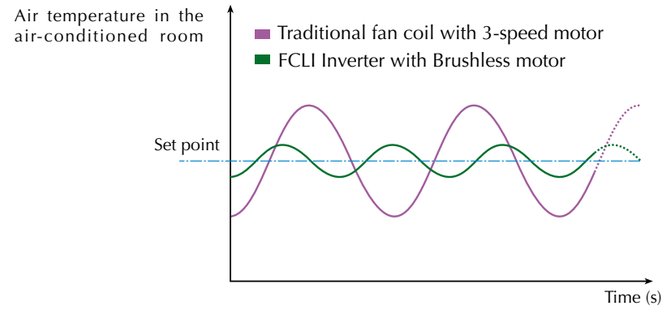
FCLI is the Aermec range of cassette-type fan coils with continuous 0-100% air flow rate variation and therefore continuous heating/cooling capacity variation.
Thanks to the Inverter technology, the FCLI continuously modifies the air flow rate, adapting it - moment by moment - to the real needs in the room.
This produces considerable advantages in terms of electric savings, comfort and noise reduction compared with a traditional on-off 3-speed fan coil.

- **VMF SYSTEM WITH GLLI1ON AND GLLI2ON GRILLES**
- **ELECTRIC SAVINGS OF 50% COMPARED WITH A FAN COIL WITH TRADITIONAL 3–SPEED MOTOR**
- **VERY QUIET OPERATION**
- **TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATIONS IN THE AIR–CONDITIONED ROOMS**
- **STANDARD INTERNAL THREE–WAY VALVE, WITH FAST CONNECTION ACTUATOR AND POSITION VISUAL SIGNALLING**
- **VERSION WITH 2–WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSION WITHOUT VALVES**
- **THERMAL EXCHANGE BATTERY WITH SHAPED PROFILE AND ENHANCED SURFACE**
- **FAN FOR LOW SOUND EMISSIONS**
- **VERSIONS FOR SYSTEMS WITH 2 AND 4 PIPES**

Features

- Fan unit with Brushless motor (Continuous 0-100% speed variation);
- 5 sizes for 2-pipe versions: FCLI 32-42-62-82-122
- 4 sizes for 4-pipe versions: FCLI 34-44-64-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and visual signalling of the position
- FCLI_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems
- FCLI_VL preparation (available upon request), without internal valve
- Requires matching with the obligatory accessories, grill and control panel, necessary for the operation
- High design aesthetics
- Grille dimensions that can be perfectly incorporated into standard suspended ceiling panel sizes (600x600 mm) and (840X840) for more powerful units.
- Fan for low sound emissions
- EUROVENT certification
- 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
- The condensation drip tray is in one piece, with V0 self-extinguishing level and joined by means of over-moulding technology to the 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
- Possibilità di condizionare anche locali attigui
- Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with a fire resistance class V0 (UL 94)
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory)
- Full compliance with the accident prevention standards
- Ease of installation and maintenance

Brushless electric motor



The "brushless" electric motor is the result of combining the most sophisticated technologies from the fields of mechanics and electronics.
"Brushless" literally means "without brushes".
The brushless electric motor has no sliding contacts between the rotor and the stator.

In brushless motors, the rotor consists of permanent magnets whose magnetic field interacts - without any mechanical contact - with the stator windings. With the special inverter device, it is possible to control the speed and torque of the rotor continuously, just by means of the stator currents.
Compared with the traditional alternate current motors, the brushless motor offers huge advantages:
- Reduced wear and tear
- The possibility to adjust the rotation speed accurately and continuously (0-100%)
- Higher energy yields
- Longer life and greater reliability

These characteristics have made the brushless motor irreplaceable in a wide variety of applications:

- robotics
- automotive
- precision drives
- CD/DVD players
- medical equipment
- etc.

Thanks to Aermec's FCLI range of inverter fan coils, brushless technology can now make inroads in the field of chilled water air conditioning, bringing notable notevoli vantaggi di energy savings along with the precise control of both air temperature and humidity in the air-conditioned rooms

Accessories

Obligatory accessories, essential for unit operation:

- **GLLI10 (600x600)**
  GLLI20 (840x840)
  Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.
- **WMT20** : Control panel with electronic thermostat and LCD monitor.
  Wall mounting.
- **GLLI10N (600x600)**
  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.
- **VMF-E4** : Control panel "VMF System" with electronic thermostat and LCD monitor.
  Wall-mounting
- **Control panels and VMF System**: the characteristics are described on the appropriate card.

Accessories:

- **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 and FCLI remain unvaried.
- **FEL10** : electrostatically pre-charged air filter, regenerated with fire resistance class 2 (UL 900).
- **KFL10**
  KFL20 : Delivery flange, allowing the air to be directed to an adjacent room.
- **KFLD**
  KFLD20 : suction flange, allows to introduce external air directly into the room without mixing.
- **VHL1** : motor-driven three-way valve for the heating battery in 4-pipe systems. Obligatory accessory in the 4-pipe systems.
- **VHL2** : motor-driven two-way valve for the heating battery in 4-pipe systems. Obligatory accessory for 4-pipe systems with variable flow rates.
- **SWI** : Water temperature probe for WMT20 control panels. Cable length L = 2m.

Compatibility of accessories

Mod. FCLI	32	34	42	44	62	64	82	122	124
GLLI10	✔	✔	✔	✔	✔	✔			
GLLI20							✔	✔	✔
GLLI10N	✔	✔	✔	✔	✔	✔			
GLLI20N							✔	✔	✔
WMT20	✔	✔	✔	✔	✔	✔	✔	✔	✔
FCLMC10	✔	✔	✔	✔	✔	✔			
FCLMC20							✔	✔	✔
FEL10	✔	✔	✔	✔	✔	✔			
KFL	✔	✔	✔	✔	✔	✔			
KFL20							✔	✔	✔
KFLD	✔	✔	✔	✔	✔	✔			
KFLD20							✔	✔	✔
VHL1		✔		✔		✔			✔
VHL2		✔		✔		✔			✔
SWI	✔	✔	✔	✔	✔	✔	✔	✔	✔

Technical data

Mod. FCLI	2-pipe versions		32	42	62	82	122
Heating capacity 50°C ***(E)***	vel. (max)	W	2380	4950	6250	7100	13000
Pressure drops (VL) 50°C ***(E)***	vel. (max)	kPa	9	23	16	21	34
Total cooling capacity ***(E)***	vel. (max)	W	1900	3950	4980	6000	11000
Sensible cooling capacity ***(E)***vel. (max)	W		1520	3160	3815	4200	8470
Water flow rate	vel. (max)	l/h	327	679	857	1032	1892
Pressure drops (VL) ***(E)***	vel. (max)	kPa	10	25	36	25	38
Air flow rate ***(E)***	vel. (max)	m³/h	600	700	880	1100	1750
	vel. (min)	m³/h	150	150	150	350	350
Fans		n.	1	1	1	1	1
Sound power ***(E)***	vel. (max)	dB(A)	46	53	61	50	60
♪ Sound pressure	vel. (max)	dB(A)	37	42	52	41	51
	vel. (min)	dB(A)	22	23	24	31	31
Heat exchanger water content		l	1,2	1,5	2,1	3	4,5
Water connections		ø Gas	3/4″	3/4″	3/4″	3/4″	3/4″
Kvs (standard version 3R valve)			2,5	2,5	2,5	4	4
Input power ***(E)***	(max)	W	33	55	61	80	90
Input current	(max)	A	0,28	0,43	0,47	0,71	0,8

Mod. FCLI	4-pipe versions		34	44	64	124
Heating capacity 70°C		l/h	2600	3070	3800	12500
Water flow rate 70°C ***(E)***	vel. (max)	W	224	264	327	1075
Pressure drops (VL) 70°C ***(E)***		kPa	11	14	21	29
Total cooling capacity ***(E)***	vel. (max)	W	1900	3650	4610	8800
Sensible cooling capacity ***(E)***vel. (max)	W		1520	2920	3530	6770
Water flow rate	vel. (max)	l/h	327	628	793	1514
Pressure drops (VL) ***(E)***	vel. (max)	kPa	10	22	31	38
Air flow rate ***(E)***	vel. (max)	m³/h	600	700	880	1750
	vel. (min)	m³/h	150	150	150	350
Fans		n.	1	1	1	1
Sound power ***(E)***	vel. (max)	dB(A)	46	53	61	60
♪ Sound pressure	vel. (max)	dB(A)	37	42	52	51
	vel. (min)	dB(A)	22	23	24	31
Heat exchanger water content		l	1,2	1,5	2,1	4,5
Heat exchanger water content (hot circuit)		l	0,3	0,5	1,5	4,5
Water connections		ø Gas	3/4″	3/4″	3/4″	3/4″
Water connections (hot circuit)		ø Gas	1/2″	1/2″	1/2″	1/2″
Kvs (standard version 3R valve)			2,5	2,5	2,5	4
Kvs (hot circuit valve)			2,5	2,5	2,5	2,5
Input power ***(E)***	(max)	W	33	55	61	90
Input current	(max)	A	0,28	0,43	0,47	0,8

Power supply = 230V ~ 50Hz

(E) = EUROVENT certificate performances

The performances are the same for all the configurations:
FCLI (standard), FCLI V2 and FCLI VL.

Performance values refer to the following conditions:

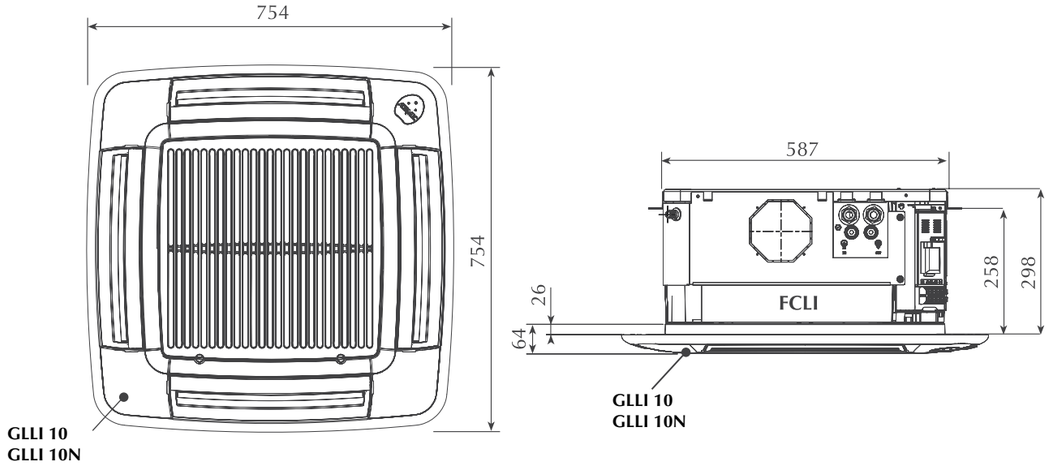
♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

Cooling:
- room air temperature 27°C B.S. ; 19°C B.U.
- inlet water temperature 7°C ; maximum speed
  Δt water 5°C

Heating
- room air temperature 20°C
- inlet water temperature 70°C ; Δt water 10°C
- maximum speed
- water flow rate as in cool mode

Dimensions (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

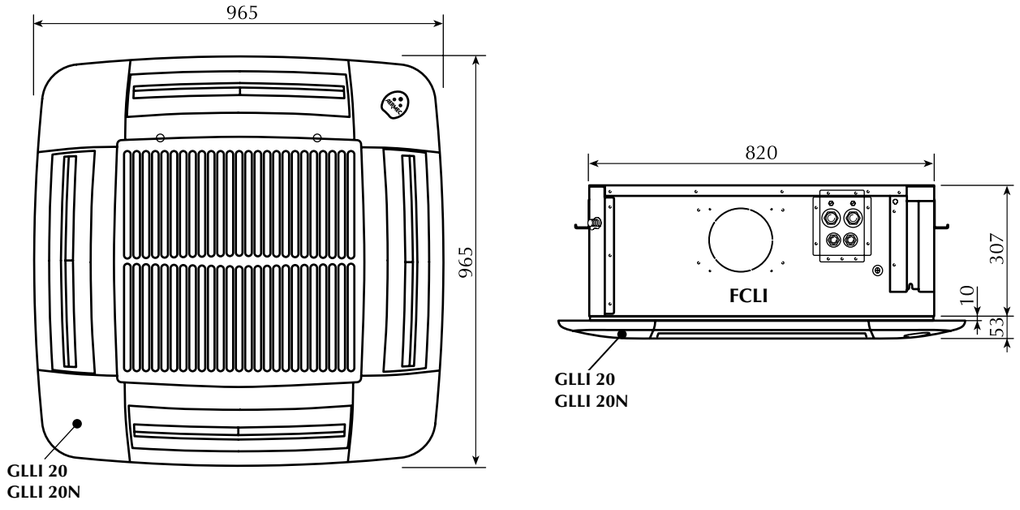


Mod. FCLI		32	34	42	44	62	64
Weight	kg	20,5	21	20,5	21	22	22,5

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

Cod.: SFCLIUY.04/ 1104

FHX

Fan coils
With germicidal lamp

Germicidal lamp incorporated

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program: FC / 2 / H
the products are present on the site
www .eurovent-certification. com



FHX-UV



FHX-UVP
FHX-UVPO

Variable Multi Flow

VMF

The FHX fan coil is fitted with an exclusive device for air sterilization, making it essential in environments that require the highest levels of hygiene, such as:

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

Features

- Available in 6 sizes and 3 versions:
  FHX-UV: universal free-standing or wall/ceiling mounting.
  FHX-UVP: wall-mounted model without cabinet.
  FHX-UVPO: wall-mounted model without cabinet, with boosted motor at 7 speeds (3 selectable).
- EUROVENT certification.
- Compatible with VMF System.
- Exclusive air sterilization system with germicidal lamps. Efficiency of 99.999% in the deactivation of all microorganism Gram - and Gram +
- 3 row coil.
- 3-speed ventilating unit.
- Full compliance with the accident prevention standards.
- Rounded line.
- Quiet operation.
- Low loss of charge in the heat exchange batteries.
- Electric motors with permanently inserted condensers.
- Ease of installation and maintenance.
- Air filter easy to remove and clean.
- Control made by a microprocessor thermostat supplied as an accessory:
- FHX-UVP and UVPO: requires external control panel (PXAE accessory).
- FHX-UV: The control panel may be fitted on board the unit (PXAI accessory) or externally (PXAE accessory).
- FHX-UV: Metal protection cabinet with varnishing in anticorrosion polyester, colour RAL9002.
- FHX-UV: The air delivery and suction louvers are made of plastic material, colour RAL7044
- Adjustable air delivery louver on version UV except models 62 and 82.

Accessories

- **BC**: Auxiliary condensate drip tray.
- **BV**: Single row hot water coil.
- **GA**: Intake louver with fixed slats.
- **GAF**: Intake louver with fixed slats and filter.
- **GM**: Delivery louver with adjustable slats.
- **PA**: Intake Plenum made of galvanized steel sheet, provided with Intake Connections for Circular Section Ducts.
- **PA-F**: Intake plenum that allows to have the intake and the delivery on the same side, suitable for all the installations where it is requested to put the appliance outside the air-conditioned rooms in order to reduce to the minimum the noise and facilitate the maintenance operations.
- **PC**: Rear cover panel. Conveniently covers exposed rear fancoil sections. The panel is required by current safety standards for units installed away from the room wall.
- **PM**: Delivery plenum in galvanized steel with external insulation, with plastic outlet connections for circular section ducting.
- **RD**: Delivery straight duct connection.
- **RDA**: Intake straight duct connection.
- **RP**: Delivery 90° duct connection.
- **RPA**: Intake 90° duct connection.
- **SE**: Manually operated fresh air intake louver.
- **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**: Probe for the electronic thermostats which permits operation of the unit only with water above 35 °C.
- **VCF**: **The SW3 probe must be combined to this accessory.**
  Kit complete with copper connections and 3 way valves all or nothing type, to be powered by a 230 V ~ 50Hz, 24 V ~ 50Hz voltage supply.
- * **Attention: The VCF valve and the drip tray BC4 can be installed at the same time as the fan coil.**
- **VCFD**: **The SW3 probe must be combined to this accessory.**
  Kit complete with copper connections and 2 way valves all or nothing type, to be powered by a 230 V ~ 50Hz, 24 V ~ 50Hz voltage supply.
- * **Attention: The VCFD valve and the drip tray BC4 can be installed at the same time as the fan coil.**
- **ZX**: Feet for built-in installation.
- **Control panels and VMF System**: the characteristics are described on the appropriate card.

Accessories		Size (FHX)						
		22	32	42	50	62	82	Versions
BC	4	✔	✔	✔	✔	✔	✔	UV-UVP-UVPO
	5	✔	✔	✔	✔			UV-UVP-UVPO
	6					✔	✔	UV-UVP-UVPO
	8*	✔	✔	✔	✔			UVP-UVPO
	9*					✔	✔	UVP-UVPO
BV	122	✔						UV-UVP-UVPO
	132		✔					UV-UVP-UVPO
	142			✔	✔			UV-UVP-UVPO
	162					✔	✔	UV-UVP-UVPO
GA	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
GAF	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
GM	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
PA	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
PA	22F	✔						UVP-UVPO
	32F		✔					UVP-UVPO
	42F			✔	✔			UVP-UVPO
	62F					✔	✔	UVP-UVPO
PC	23	✔						UV
	33		✔					UV
	43			✔	✔			UV
	62							
PM	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
PXAE		✔	✔	✔	✔	✔	✔	UV-UVP-UVPO

Accessories		Size (FHX)						
		22	32	42	50	62	82	Versions
PXAI		✔	✔	✔	✔	✔	✔	UV
RD	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
RDA	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
RP	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
RPA	22	✔						UVP-UVPO
	32		✔					UVP-UVPO
	42			✔	✔			UVP-UVPO
	62					✔	✔	UVP-UVPO
SE**	20X	✔						UVP-UVPO
	30X		✔					UVP-UVPO
	40X			✔	✔			UVP-UVPO
	80X					✔	✔	UVP-UVPO
SIT3		✔	✔	✔	✔	✔	✔	UV-UVP-UVPO
SIT5		✔	✔	✔	✔	✔	✔	UV-UVP-UVPO
SW3		✔	✔	✔	✔	✔	✔	UV-UVP-UVPO
VCF	41	✔	✔					UV-UVP-UVPO
	42			✔	✔			UV-UVP-UVPO
	43					✔	✔	UV-UVP-UVPO
	4124	✔	✔					UV-UVP-UVPO
	4224			✔	✔			UV-UVP-UVPO
	4324					✔	✔	UV-UVP-UVPO
VCFD	1	✔	✔					UV-UVP-UVPO
	2			✔	✔			UV-UVP-UVPO
	3					✔	✔	UV-UVP-UVPO
	124	✔	✔					UV-UVP-UVPO
	224			✔	✔			UV-UVP-UVPO
	324					✔	✔	UV-UVP-UVPO
ZX	7	✔	✔	✔	✔			UVP-UVPO
	8					✔	✔	UVP-UVPO

(*) BC8 and BC9 are not applicable to fan coils with cover cabinets
(**) SE accessories are matched with ZX feet

Technical data

Mod.			FHX 22	FHX 32	FHX 42	FHX 50	FHX 62	FHX 82
Heating capacity	W (max.)		3400	4975	7400	8620	12920	15140
	W (med.)		2700	4085	6415	7530	10940	13350
	W (min.)		1915	3380	5115	5420	8330	10770
Heating capacity (inlet water 50°C)	W (E)		2100	3160	4240	4900	6460	7990
Water capacity	l/h		292	427	636	741	1110	1300
Water pressure drops	kPa		6,3	14,2	14,1	14,2	14,8	19,8
Total cooling capacity	W (max.) (E)		1500	2210	3400	4190	4860	7420
	W (med.)		1330	2055	2800	3640	4660	5500
	W (min.)		1055	1570	2310	2840	3950	4710
Sensitive cooling capacity	W (max.) (E)		1240	1750	2760	3000	3980	5680
	W (med.)		1055	1540	2115	2750	3510	4250
	W (min.)		755	1100	1635	2040	2825	3450
Water capacity	l/h		258	380	585	721	836	1276
Water pressure drops	kPa (E)		5,8	16,6	14,3	19,3	11,6	13,5
Air capacity	m3/h (max.)		290	450	600	720	920	1140
	m3/h (med.)		220	350	460	600	720	930
	m3/h (min.)		140	260	330	400	520	700
Number of fans	n.		1	2	2	2	3	3
♪ Sound pressure	dB (A) (max.)		41,5	39,5	42,5	47,5	48,5	53,5
	dB (A) (med.)		34,5	32,5	35,5	42,5	42,5	48,5
	dB (A) (min.)		22,5	25,5	28,5	33,5	33,5	41,5
	dB (A) (max.) (E)		50	48	51	56	57	62
Sound power	dB (A) (med.) (E)		43	41	44	51	51	57
	dB (A) (min.) (E)		31	34	37	42	42	50
Water content	l		0,79	1,11	1,48	1,48	2,52	2,52
Total input power	W	(FHX-UV / UVP)	50	69	82	92	182	206
		(FHX-UVPO)	79	122	136	107	197	235
Total input current	A	(FHX-UV / UVP)	0,24	0,33	0,4	0,47	0,84	0,93
		(FHX-UVPO)	0,37	0,57	0,63	0,48	0,92	1,06
Battery connections 3R	ø		1/2"	1/2"	3/4"	3/4"	3/4"	3/4"
Battery connections 1R (BV)	ø		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"

Electrical power supply = 230V ~ 50Hz

(E) = Performance EUROVENT certification

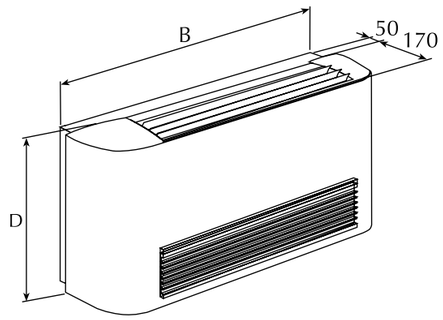
The performance refers to the following conditions:

♪ Level of sound pressure (A-weighted) measured in the room with volume V = 85 m 3; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

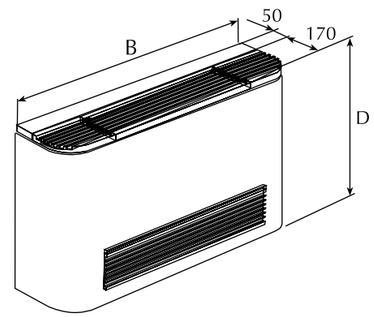
Cooling:
- room air temperature 27°C D.B. ; 19°C W.B.
- maximum speed:
  - water inlet temperature 7°C ; Δt water 5°C
- medium and minimum speed:
  - water inlet temperature 7°C
  - water flow rate same as at maximum speed

Heating:
room air temperature 20°C D.B.
- maximum speed:
  - water inlet temperature 70°C; Δt water 10°C
- medium and minimum speed:
  - water inlet temperature 70°C
  - water flow rate same as at maximum speed
- maximum speed (water inlet 50°C):
  - water inlet temperature 50°C
  - water flow rate same as in cooling operation

Dimensions (mm)

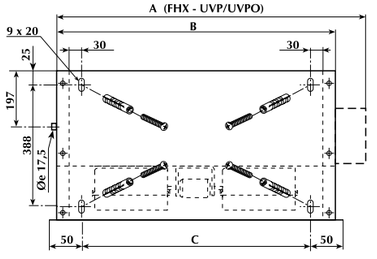


FHX 22 UV - 32 UV - 42 UV - 50 UV

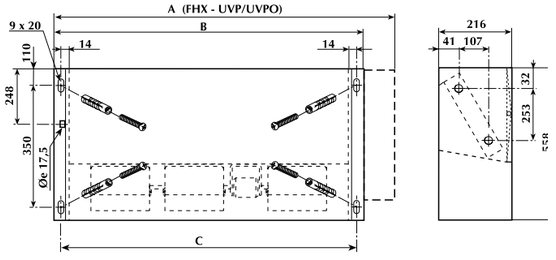


FHX 62 UV - 82 UV

Mod. FHX		22 UV	32 UV	42 UV	50 UV	62 UV	82 UV
Height	D	520	520	520	520	590	590
Width	E	750	980	1200	1200	1320	1320
Weight	[kg]	16	26	25	25	35	35



FHX 22 - 32 - 42 - 50 UVP
FHX 22 - 32 - 42 - 50 UVPO



FHX 62 - 82 UVP
FHX 62 - 82 UVPO

Mod. FHX		22 UVP/UVPO	32 UVP/UVPO	42 UVP/UVPO	50 UVP/UVPO	62 UVP/UVPO	82 UVP/UVPO
	A	572	823	1043	1043	1205	1205
	B	522	753	973	973	1122	1122
	C	440	671	891	891	1102	1102
Weight	[kg]	16	26	25	25	35	35

Cod.: SFHXUY.03 / 0912

Control panels

Control panels for fan coils

PXAE



PXAI



PXAR



PTI



PXBI



KTLM



WMT05
WMT06



WMT10



FMT10



FMT20AW



PX2C6
PX2



Control panels

- **FMT10**: Electronic thermostat for fan coils installed in 4-pipe and 2-pipe systems and in 2-pipe systems with electric heater, can be connected to two On/Off valves for closing coil water supply. Simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds). External air sensor (supplied with sensor holder) to be placed inside the fan coil.
  Recessed installation.
- **FMT20AW**: Electronic thermostat with LCD for fan coils installed in 4-pipe systems, 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. Probe for air temperature inside the panel. A room air temperature probe can be connected (SWA accessory). A probe for the temperature of the water in the system can be connected (SWA accessory). Recess installation.
- **KTLM**: Thermostat kit, including an IR remote control, an IR receiver, an electronic control board with air temperature sensor, a connecting cable, brackets and all the necessary mounting fittings. KTLM can be applied to fan coils installed in 2-pipe systems with or without water valves or in 4-pipe systems with water valves. For use with FCX fan coils with cabinet.
- **KTLP**: Thermostat kit, including an IR remote control, an IR receiver, an electronic control board with air temperature sensor, a connecting cable, brackets and all the necessary mounting fittings. KTLP can be applied to fan coils installed in 2-pipe systems with or without water valves or in 4-pipe systems with water valves. For use with FCX fan coils without cabinet.
- **PCT2**: Control panel with electromechanical thermostat for 2-pipe systems with thermostated ventilation. Not for use with FCA-R.
  Wall installation.
- **PXBI**: Simplified control panel with electronic room temperature thermostat.
  Mounted directly on the fan coil (for FCX AS, B, U and UA).
- **PXAE**: Electronic thermostat for fan coils installed in 2-pipe or 4-pipe systems. Simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds, manual or automatic control). Can control 2 On/Off valves. Continuous or thermostated ventilation. Wall installation.
- **PXAI**: Electronic thermostat for fan coils installed in 2-pipe or 4-pipe systems. Simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds, manual or automatic control). Can control 2 On/Off valves. Water temperature sensor included. Continuous or thermostated ventilation. Mounted directly on the fan coil (for FCX AS, B, U and UA).
- **PXAR**: Electronic thermostat for fan coils installed in 2-pipe systems, 2-pipe systems with electric heater or 4-pipe systems (without electric heater). Simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds, manual or automatic control). The electric heater is controlled by the fan speed control. Can control the heater and one On/Off valve or, alternatively, 2 On/Off valves. Continuous or thermostated ventilation. Water temperature sensor included. Wall installation or mounted directly on the fan coil (for FCX AS, B, U and UA).
- **PTI**: Control panel with electronic room temperature thermostat to be mounted directly on the fan coil (for FCX AS, B, U and UA).
  Mounting on the fan coil.
- **PX**: Control panel with switch.
  Wall installation.
- **PX2**: Control panel with switch. Wall installation or mounted directly on the fan coil (for FCX AS, B, U and UA).
- **PX2C6**: The control panel PX2C6 is provided only in multiple packages of 6 parts, sealed individually. Wall installation.
- **TF1**: Room temperature thermostat with switch. Wall installation.
- **WMT05**: Electronic thermostat for fan coils installed in 2-pipe systems. The panel is electrically protected by an internal fuse. Thermostatically controlled ventilation, no control valve, wall installation.
- **WMT06**: Electronic thermostat for fan coils installed in 2-pipe or 4-pipe systems. The panel is electrically protected by an internal fuse.control of the thermostat valve, continuous ventilation, wall installation.
- **WMT10**: Electromechanical thermostat for fan coils installed in 4-pipe and 2-pipe systems and in 2-pipe systems with electric heater; can be connected to two On/Off valves for closing coil water supply. The panel is electrically protected by an internal fuse. Continuous or thermostated ventilation.
  Wall installation.

	PXAE	PXAI	PXAR	PXBI	PTI	FMT10	FMT20	WMT05	WMT06	WMT10	KTLM	KTLP	TF1	PX	PX2	PX2C6	PCT2
Features																	
Electronic thermostat	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Electromechanical thermostat																✓	✓
Switch								✓							✓	✓	
Change over																	
Automatic	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Manual				✓			✓	✓									
Standard equipment																	
Internal air sensor	✓	✓	✓	✓			✓	✓									
External air sensor		✓2,3m	✓2,3m	✓2,3m	✓2,3m	✓6m											
Water sensor		✓2,5m	✓2,5m		✓2,5m												
Installation																	
Wall installation	✓		✓					✓									
On board installation		✓	✓	✓	✓												
Recessed installation (503)						✓	✓										
IR remote control																	
Configurations 2-pipe system																	
2-pipe system Without valve	✓	✓		✓	✓	✓	✓	✓									
VCF	✓	✓		✓	✓	✓	✓										
SW**	✓						✓6m										
SA***							✓6m										
SIT	✓			✓													
SIT3	✓			✓													
SIT5	✓			✓													
2-pipe system with electric heater																	
RX			✓			✓	✓										
RX + VF			✓			✓	✓										
SW3**																	
SIT			✓														
SIT3			✓														
SIT5			✓														
4-pipe system																	
VC+VF	✓	✓				✓	✓										
SW3**	✓																
SIT	✓																
SIT3	✓																
SIT5	✓																

VF = Cold water valve
VCF = Hot and cold water valve
RX = Electric heater
(503) = Recessed 503 module

Important: Before choosing a control panel make sure it is compatible with the fan coil model and its accessories.
Some control panels offer more functions than the standard configuration; consult the manual for information on all the functions available

Cod.: SPCUY.04 / 1102

Symbols
* = Air temperature sensor selected by remote control
** = Water temperature sensor
*** = Air temperature sensor
VC = Hot water valve

VMF

Variable Multi Flow system
Range of components for the management of air conditioning, heating and domestic hot water systems

Variable Multi Flow

Zone interface



VMF-E4D

VMF-E4

GOOD DESIGN

*As awared by Chicago Athenaeum: Museum of the Architecture and Design

VMF systems central interface



VMF-E5N / VMF-E5B

Accessory module



VMF-VOC VMF-CRP

Zone interface



VMF-E2
VMF-E2H

Thermostat with serial communication



VMF-E0 VMF-E1 / VMF-E18



VMF-SW / VMF-SW1

Domestic water panel



VMF-ACS

* Winner for the International design Award "Good Design 2010" for the "Electronics"

Features

- VMF: Variable Multi Flow system.
  Management and control system of hydronic systems for the conditioning, heating and production of domestic hot water.
  The VMF system allows complete control of every component of a hydronic system both locally and centrally and, communicating between the various components of the system, manages the performance without ever neglecting the end user's request of comfort, but reaching it as efficiently as possible with energy saving.
  If you add the advantages deriving from such an innovative control to the flexibility of a hidronic system, you get a more efficient and effective alternative to the variable refrigerant flow systems (VRF).
  The VMF system is extremely flexible, enough to allow various control and manage steps, expandable at different moments:

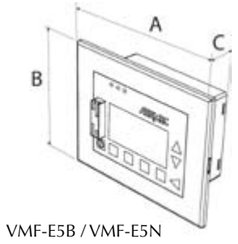
1) Control of a single fancoil.
2) Control of a microzone (one MASTER fancoil and a maximum of 5 SLAVE fancoils).
3) Control of multi independent zones system (one MASTER fancoil and a maximum of 5 SLAVE fancoils for each zone).
4) Control of a fancoil system, plus management of the heat pump (if compatible with the VMF system).
5) Control of a fancoil system, heat pump and management of the domestic hot water system (VMF-ACS).
6) Control of a fancoil system, heat pump, domestic hot water production and additional circulators (up to a maximum of 12 using three additional VMF-CRP modules).
7) Control of a fancoil system, heat pump, domestic hot water production, additional circulators and management of heat recovery units, maximum 3, (with the ability to handle up to 3 VMF-VOC sensors) or a boiler.

- The VMF system can operate and manage, through a VMF-E5N / VMF-E5B panel, a maximum of 64 zones consisting of a MASTER fancoil and a maximum of 5 SLAVE fancoils connected to each MASTER, for a total of 384 fancoils.
- Besides the central control supplied by theVMF-E5N / VMF-E5B panel, the MASTER fancoils must be provided with a local control interface; this interface can be mounted on the fancoil (VMF-E2 / VMF-E2H) or be mounted into a wall panel (VMF-E4).
- Different functions can be controlled through the VMF-E5N / VMF-E5B panel, including:
  - Identify the different zones setting a name for each one.
  - Check and set the ON-OFF function and the set temperature of each zone.
  - Set and manage the set temperature of the heat pump.
  - Scheduling time slots.
- Simple installation of the fancoil system through the SELF-MONITORING function of the MASTER fancoils.

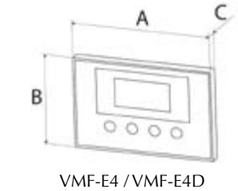
System components

- **VMF-E0:** thermostat accessory to fix on the side of the fancoil, equipped with air and water sensors as standard, controls 2 pipes, 4 pipes,
  2 pipes + Plasmacluster, 2 pipes + UV lamps, 2 pipes + Electric 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 + 5 slaves maximum). The thermostat is fuse protected.
- **VMF-E1:** like VMF-E0 with extra:
  - Economy contact/presence sensor.
  - Auxiliary water sensor for general control in 4-tube systems (with VMF-SW1 accessory).
  - Serial RS485, protocol ModBus RTU, for centralised control.
  - Possibility to insert expansion cards for future development. The VMF-E1 accessory must therefore be used in the Masters in the presence of multiple zones, or for communication with the chiller/heat pump.
- **VMF-E18:** the same as the VMF-E1, but for fancoils with inverter motors.
- **VMF-E2:** this is the user interface on the machine to match to the VMF-E0, VMF-E1 and E18 accessories for the series UL-S-FCX-AS, FCX-U (sizes 62-64-82-84-102) FCX180U FHX-U (sizes 62-82). Equipped with 2 selector switches, one for temperature and one for speed control.
- **VMF-E2H:** this is the User Interface (as above) on the machine, to match to the VMF-E0, E1, accessories dedicated to the HL series
- **VMF-E4:** this is the wall mounted user interface, to match to the VMF-E0, VMF-E1 and VMF-E18 accessories for the UL, HL, and FCX series without on-board control. Innovative design, extremely slim and inexpensive, allows control of functions via a capacitive touch keypad with LCD display. The environment can be adjusted with the sensor on the panel (standard), or the sensor of the fancoil which it is connected to, or by their arithmetic mean. It also allows the activation of the air purifier accessory (Plasmacluster / UV Lamp) and the electrical heating element.
- **VMF-E4D:**is the variant of the previous code, but with frontal gray Pantone 425C (METAL)
- **VMF-E5B:** white recessed panel, with backlit graphic LCD and capacitive keyboard allows the centralised command/control of a complete hydronic system consisting of Fancoils: up to 64 fancoil zones consisting of a master + 5 slaves. Chiller/heat pump equipped with Modu_Control, GR3 and pCO2/PCO³ controls (accessory required for RS 485 interface with MODU-485A, AER485, AER485P2 / AER485P1); circulators: up to 12 configurable zone circulators; boiler: boiler consensus management for hot water production; heat recovery units: consents up to 3 per programmable recovery units based on the timing and/or by measuring the air quality obtained with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverting/circulator valve, integrated resistor, accumulation temperature sensor, anti-legionella circuit.
- **VMF-E5N:** this is the variant of the previous code, but with black plastic.
- **VMF-VOC :** accessories for measuring air quality (see related point in the description of the VMF-E5B).
- **VMF-CRP:** accessory module for the control of the boilers, pumps and heat recovery units.
- **VMF-SW:** water sensor may be used in place of the standard supplied with VMF-E0, VMF-E1 and VMF-E18 thermostats for the installation upstream of the valve.
- **VMF-SW1:** additional water sensor may be used for 4-pipe systems with VMF-E1 and E18 thermostats for the maximum control in the cold range.
- **VMF-ACS3KM:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated single phase 3kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS3KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three-phase 3kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS6KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three phase 6kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS8KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three phase 8kW resistor command, Anti-legionella and temperature sensor).
- **GLL_N:** FCL_N grid units, equipped with thermostat card for serial communication with the accessory functions equivalent and VMF-E1 (this grid is a mandatory accessory for the units FCL N);
- **GLLI_N:** FCLI_N grid units, equipped with thermostat card for serial communication with the accessory functions equivalent and VMF-E18, (this grid is a mandatory accessory for the units FCLI N);

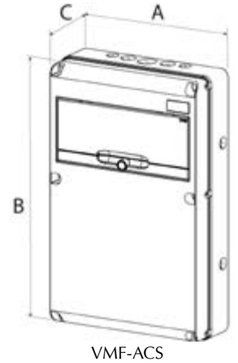
Dimensions (mm)



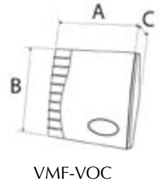
VMF-E5B / VMF-E5N



VMF-E4 / VMF-E4D



VMF-ACS



VMF-VOC

	A [mm]	B [mm]	C [mm]
VMF-E5B / VMF-E5N	138	110	45
VMF-E4 / VMF-E4D	125	80	11
VMF-ACS	354	544	135
VMF-VOC	79	81	26

Selection 1 • Compatibility of thermostats for serial communication and control interface for MASTER units

Models	Versions	Notes	VMF-E0	VMF-E1	VMF-E18	VMF-E2	VMF-E2H	VMF-E4/E4D	GLL N	GLLI N
FCX	AS - UA - B		✔	✔	-	✔	-	✔	-	-
	U	(7)	✔	✔	-	✔	-	✔	-	-
	P - PPC - PO - PV		✔	✔	-	-	-	✔	-	-
FCXI	AS		-	-	✔	✔	-	✔	-	-
	U	(7)	-	-	✔	✔	-	✔	-	-
	P	(2)	-	-	✔	-	-	✔	-	-
HL	S - SM		✔	✔	-	-	✔	✔	-	-
	N	(1)	-	-	-	-	-	-	-	-
UL	S		✔	✔	-	-	-	✔	-	-
	P		✔	✔	-	-	-	✔	-	-
FHX	UV	(7)	✔	✔	-	✔	-	✔	-	-
	UVP - UVPO		✔	✔	-	-	-	✔	-	-
VEC			✔	✔	-	-	-	✔	-	-
FCL		(8)	-	-	-	-	-	✔	✔	-
FCLI		(8)	-	-	-	-	-	✔	-	✔
VED			✔	✔	-	-	-	✔	-	-

Selection 2 • Compatibility of VMF-E5 7 VMF-E5B centralised control

Models	Versions	Notes	VMF-E5N / VMF-E5B
FCX	AS - U - UA - B	(2)	✔
	P - PPC - PO - PV	(2)	✔
FCXI	AS - U - P	(2)	✔
HL	S - SM	(2)	✔
	N	(1)	-
UL	S	(2)	✔
	P	(2)	✔
FHX	UV - UVP - UVPO	(2)	✔
VEC		(2)	✔
FCL		(2)	✔
FCLI		(2)	✔
VED		(2)	✔

Selection 3 • Compatibility of heat pumps with electrical panel for domestic hot water management

Models	Versions	Notes	VMF-ACS3KM	VMF-ACS3KT	VMF-ACS6KT	VMF-ACS8KT
ANL	H	(3) (4)	✔	✔	✔	✔
ANLI	Tutte	(4)	✔	✔	✔	✔
ANK	Tutte	(4)	✔	✔	✔	✔
ANR	H	(3) (4)	✔	✔	✔	✔
ANF	H	(3) (4)	✔	✔	✔	✔
SRA	Tutte	(4)	✔	✔	✔	✔
SRP-V1	Tutte	(4)	✔	✔	✔	✔
NRL	H	(3) (4)	✔	✔	✔	✔
NRC	H	(3) (4)	✔	✔	✔	✔
WSH	Tutte	(4)	✔	✔	✔	✔

Selection 4 • Compatibility of modules and additional sensors

Models	Versions	Notes	VMF-CRP	VMF-VOC	VMF-SIT3
VMF-E5N/ E5D	All	(5) (6)	✔	✔ (6)	
VED	All	(9)			✔

Notes:

The versions with the accessories hanging MA or MP, can be treated equally to their respective versions FCX AS U FCX, FCX AU;

(1) This version includes the thermostat E0-VMF and VMF-E2H command interface already installed, these features make these models suitable for operation as a single unit or function of the MASTER microzone plants (plants consist of a single zone, without centralized contol VMF-E5N / VMF-E5B);

(2) To be compatible with the centralized control of VMF-E5N / VMF-E5B, a fan must be set as MASTER of the area, therefore this must be equipped with the thermostat for serial communications, or VMF VMF-E1-E18 and combined with a user interface (VMF-E2, or VMF VMF-E2H-E4), or units FCL / FCLI equipped with a thermostat on the grid GLL_N / GLLI_N, combined with a command interface VMF-E4 / VMF-E4D ;

(3) The heat pumps with integrated storage are not suitable for production of hot water;

(4) To know the maximum temperature of hot water production (plant and / or health) refer to the limits on the operating unit technical manual;

(5) All types of systems that provide centralized control of VMF-E5N / VMF-E5B, are compatible with the accessory modules (maximum 4) VMF-CRP, and each module can function as a pump controller (4 for each accessory module) or boiler control and recovery (with ON / OFF control and management of 3 recovery boiler in addition to 3 accessories VMF-VOC);

(6) The compatibility of the probe VMF-VOC is only related to the presence of the accessory module in the system with VMF-CRP control function recovery;

(7) VMF-E2: Only for size FCX62U-64U-82U -84U-102U, FCXI80U, FHX62UV-82UV.

(8) units must be included in boxes FCLI GLLI_N mandatory accessory grid, this grid is equipped with a card thermostat same rights as VMF-E18 models.

FCL cassette units must provide the mandatory accessory GLL_N grid, this grid is equipped with a card equivalent and thermostat models VMF-E1. To use one of these drives as MASTER is necessary to provide the command interface VMF-E4;

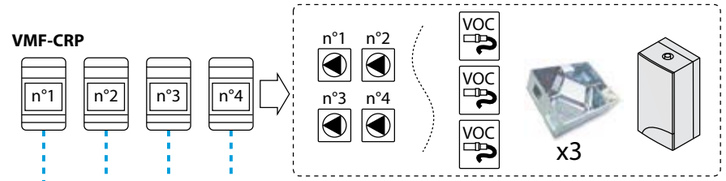
(9) Accessory units required for the combination of VED with thermostats or VMF VMF-E0-E1. Using a VMF-SIT3 for each unit;

Example of system components

Selection 4:

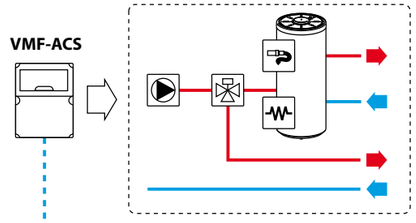
• A maximum number of 4 VMF-CRP modules can be installed and each one can perform several tasks based on the type of setting:
- Control 4 pumps
- Control 3 heat recovery units and 3 VOC sensors (in this case the correct number of VMF-VOC accessories must be purchased)
- Control a boiler

• The only requirement to install VMF-CRP modules is the presence of a VMF-E5 centralised control

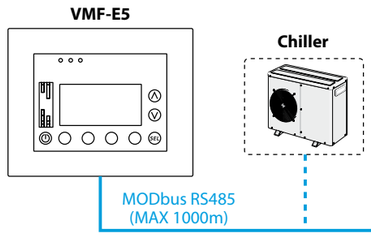


Selection 3:

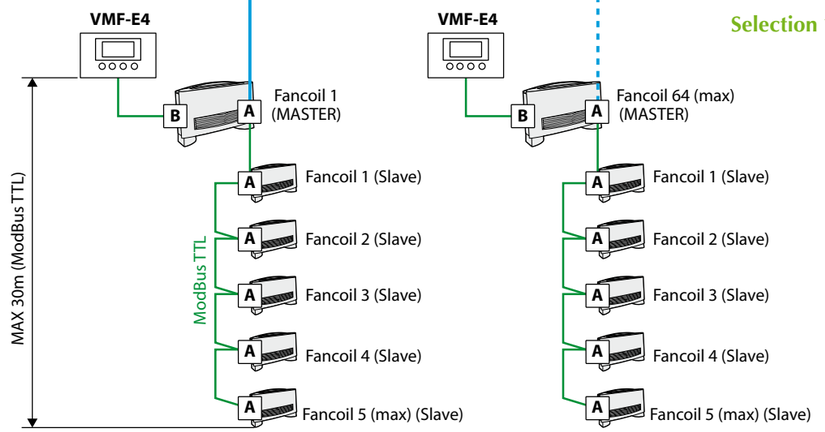
• The VMF-ACS accessory allows to control the different components needed to produce domestic hot water; for detailed information on the types of systems manageable by VMF-ACS, refer to technical documentation of the accessory



Selection 2:



Selection 1:



A Thermostat for serial connection VMF-E0 / VMF-E1 / VMF-E18

B Commands interface for MASTER unit VMF-E2 / VMF-E2H / VMF-E4

Cod.: SVMFUY.05 / 1111

Climafon

Thermoconvectors
Vertical installation residential use







With fixed grille (Version G) | With Manual Blade (Version M) | With Automatic Blade (Version A)

Aermec presents the brand new natural convection heating system in the **CLIMAFON** system.

CLIMAFON is born from long experience in the heat exchange field gained within the Giordano Riello International Group, a group in which Aermec is the leading company.

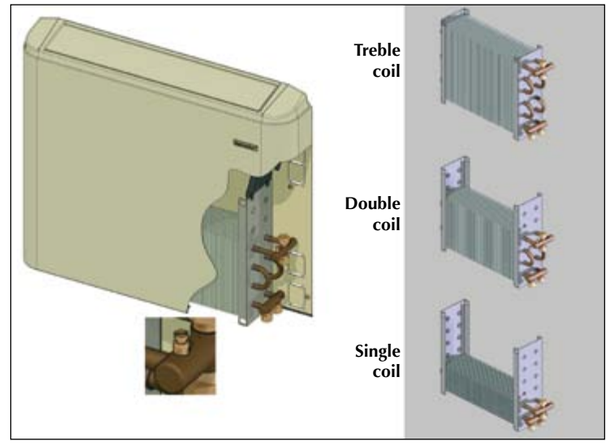
CLIMAFON is a system terminal that works on the basis of natural convection: the air is heated through an exclusive finned exchange and is sent into the room through a flue effect.

Features

- **Enhanced Comfort:** CLIMAFON heats rooms quickly and naturally because it basis its operation on air moved by simple convection. The use of CLIMAFON with low temperature heating systems (heat pump, condensation boiler, geothermal and solar...) ensures that the rooms are heated without drying the air. It causes a pleasant sensation of well-being that helps to survive even the longest and harshest winters in total relaxation.
- **Best quality of the air we breath:** the air temperature of the air leaving CLIMAFON is such as not to allow the toasting of the powder in the environment. The result is healthy, clean air. In addition to our health, winners also include the walls of our house (CLIMAFON spells the end to the blackening of walls typical of radiator systems).
- **Energy saving:** the innovative finned exchanger ensures high energy efficiency thanks the possibility of effective use at low temperatures of the warm supply water.
- **Operation at full capacity achieved more quickly:** CLIMAFON has much smaller water content. This enables it to be very fast in heating times and permits it to be used only where it is useful. The speed it takes CLIMAFON to reach full capacity operation has been checked by TÜV (world leader in product assessment and verification).
- **Greater security:** CLIMAFON's outer surface reaches a top temperature of 43°C, a value that is totally harmless for our body (the risk of burning is nil). Its rounded form without sharp edges makes the room a safer environment especially for children.
- **Greater care to appearance:** the soft flowing, modern and elegant lines give CLIMAFON greater appeal that enables it to be integrated with all types of furnishing whether it is traditional or modern.
- **Easier and faster installation:** CLIMAFON is much lighter than a radiator with the same capacity; just one person is needed to handle and install it quickly and easily on all types of wall. CLIMAFON is fitted with an installation template that means the unit can be assembled after the building work has been completed. Costly masonry work typical of radiator installation is avoided: just four blocks are required for fixing CLIMAFON to the wall.
- **Electronic regulation:** CLIMAFON, in its complete version, has a built in thermostat with temperature that can be regulated by the user. The thermostat controls an interior motor that opens and closes the deflector interrupting the supply of heat. This system is powered by a normal 9 volt battery (a life of up to three years operation before replacement is necessary) that makes CLIMAFON completely autonomous without the need for connection to the mains.

Versions

- Available in four sizes.
- Available versions with fixed grille, manual fin or motorised fin. For the last version, in order to avoid the creation of an electrical system, the unit is controlled by a normal 9V battery (life of up to three years of operation before replacement is necessary).
- The versions available are single coil (2 rows of pipes), double (4 rows of pipes) or treble (6 rows of pipes).



Selection

By combining the various options, each model can be configured.

Code:
CLIMAFON

Size :
1, 2, 3, 4

Coil :
1 - Single
2 - Double
3 - Treble

Grille:
G - With fixed grille
M - With manual blade
A - With motorised blade

Commercial code example: **CLIMAFON 23M**

This is the Climafon unit, size 2 with treble coil and manual blade.

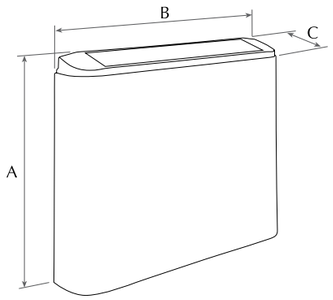
Technical data

Mod. Climafon		11	12	13	21	22	23	31	32	33	41	42	43
Heating capacity	W	700	910	1005	1010	1350	1540	1400	1750	2001	1810	2205	2515
Water flow rate	l/h	60	78	87	87	116	135	120	150	176	156	190	221
Water pressure drop	kPa	0,18	0,22	0,26	0,24	0,50	0,72	0,35	0,95	1,36	0,52	1,31	1,91
Water contents	l	0,4	0,5	0,6	0,5	0,8	1,1	0,6	1,0	1,4	0,7	1,1	1,6
Coil connections	ø	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″
Rows of pipes	ø	1	2	3	1	2	3	1	2	3	1	2	3

Performance values refer to the following conditions:

Heating (in accordance with UNI EN 442):
- room air temperature 20 °C;
- water inlet temperature 75-65 °C; Dt water 50 °C.

Dimensions (mm)

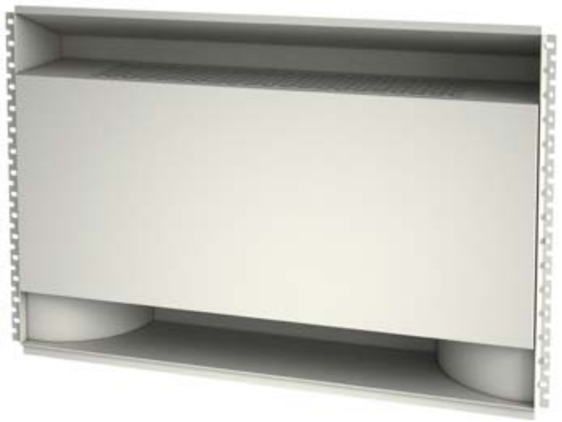


Mod Climafon		11	12	13	21	22	23	31	32	33	41	42	43
Height	A	675	675	675	675	675	675	675	675	675	675	675	675
Width	B	600	600	600	800	800	800	1000	1000	1000	1200	1200	1200
Depth	C	140	140	140	140	140	140	140	140	140	140	140	140
Weight	[kg]	11,6	12,1	12,5	14,2	14,9	15,6	17,1	18	18,7	19,9	21	21,9

Cod.: SCFONUY,00 / 0503

Climabox

Recessed wall-mounted convection heater



Climabox is the innovative built-in wall convection radiator for heating systems. It was created to meet the needs for space rationalization according to modern architecture criteria for interiors and the current need for energy saving.

Characteristics

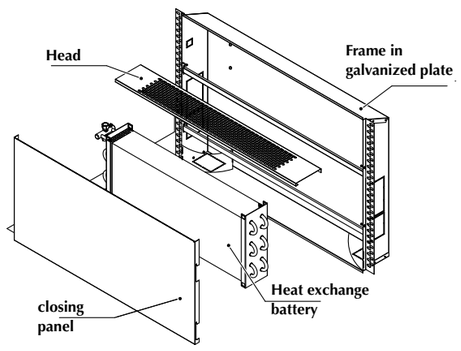
- Available in 3 sizes with double or triple battery.
- **Climabox** consists of several parts to be assembled:

1. **Frame in galvanized** and painted plate that allows the heat exchanger to be installed in the wall.
2. **Heat exchanger**, designed for maximum intensification of the natural convection effect, constructed of copper piping and finning.
3. **Closing panel** supplied, which allows the materials, desired look and colour of the panel to be customized. Once the work is complete, the heating unit will be completely hidden from view.
4. **Head**
   Located on the upper horizontal part of the panel, it is available with a fixed metallic grille.

The closing panel and all of the visible parts of the frame are treated so they can be painted with the same paint as the wall.

The **Climabox** convection heater is the ideal terminal for heating any room. Heat is supplied instantly and uniformly distributed throughout the area.
It can be added to a heating system powered by a boiler, district heating system or heat pump. The possibility of easily removing the cover allows for thorough cleaning of the interior.

Ease of installation with reversable water attachments in the installation phase. Full compliance with safety and injury prevention regulations

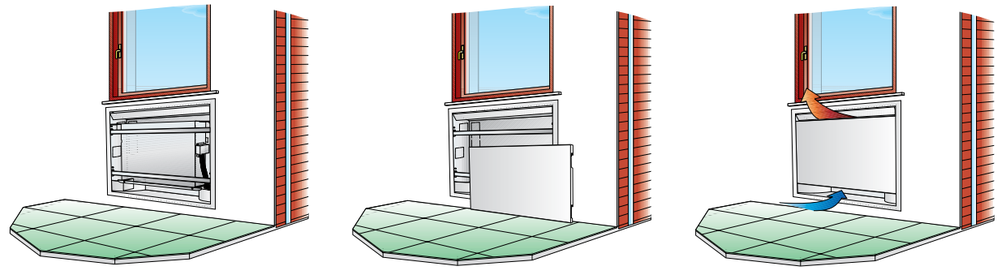


Unit choice

Any model can be configured by changing the available options.

Logo:
CLIMABOX
Size:
2, 3, 4

Battery:
2 - Double
3 - Triple
Grille:
Fixed grille



Technical data

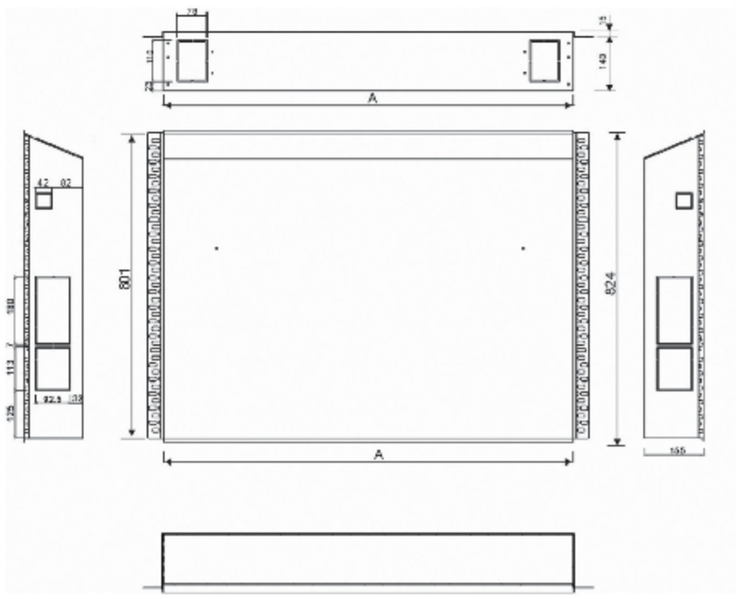
Mod.		CBX 22	CBX 23	CBX 32	CBX 33	CBX 42	CBX 43
Thermal power	W	1220	1330	1610	1755	2005	2180
Water flow rate	l/h	105	114	138	151	172	187
Water pressure drop	kPa	0,5	0,72	0,95	1,36	1,31	1,91
Water content	l	0,8	1,1	1	1,4	1,1	1,6
Battery connectors	ø gas	1/2" Female					

Data in compliance with standard UNI EN 442

HEATING

Water input temperature	75 °C
Water output temperature	65 °C
room temperature	20 °C (ΔT0=50 °C)

Dimensions (mm)



CHF			22	23	32	33	42	43
Height	A	mm	155	155	155	155	155	155
Width	A	mm	884	884	1084	1084	1284	1284
Exchanger width		mm	625	625	825	825	1025	1025

Cod.: SCBXUY.01 / 1203

NEW

VED

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

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Variable Multi Flow

VMF



- **WIDE RANGE OF ACCESSORIES**
- **HORIZONTAL AND VERTICAL INSTALLATION**
- **COMPATIBLE WITH THE VMF SYSTEM**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **HEAT EXCHANGER ONLY WITH 1 OR 2 ROWS**
- **WIDE RANGE OF USEFUL STATIC PRESSURE**
- **5 SPEED VENTILATION UNIT**
- **CENTRIFUGAL FANS IN ANTISTATIC PLASTIC**
- **INSPECTIONABLE FAN UNIT**
- **INTERNAL ISOLATION WITH CLASS 1 FIREPROOF PROTECTION**
- **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
I	I	I	I
Code	Size	Main coil n°. rows	Heating only coil n°. rows
1 2 3	4	5	6
I	I	I	I
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

- **RDA_V**: Straight fitting with rectangular flange for ducting.
  In galvanised sheet steel
- **RPA_V:** Intake plenum with rectangular flange for ducting.
  In galvanised sheet steel
- **PA_V:** Intake plenum with circular flanges for ducting.
  In galvanised sheet steel, the flanges are in plastic
- **RPM_V:** Flow plenum with rectangular flange for ducting.
  In galvanised sheet steel, internally isolated.
- **PM_V:** Flow plenum with circular flanges for ducting
  In galvanised sheet steel, internally isolated, the flanges are in plastic
- **KFV:** Circular flange kit for intake/flow plenum.
  In plastic
- **VCF4_C:** Kit made up from motorised 3-way valves with isolating shell, fittings and isolated copper pipes. For main coils.
  230V~50 Hz 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
- **VCF2_C:** Kit made up from motorised 2-way valves, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF2_H:** Kit made up from motorised 2-way valves, with fittings and copper pipes.
  For heating only coils. 230V~50 Hz power supply

CONTROL PANELS

The complete features of the control panels are described in the dedicated sheet.

Some control panels require coupling with other accessories, consult the relative documentation.

ACCESSORIES TO COUPLE WITH THE CONTROL PANELS

- **SIT3 :** Thermostat interface board
  Mandatory accessory on the VED units coupled to thermostats different to the VMF System
- **SIT5:** Thermostat interface board.
  Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel
- **SW3:** Water minimum temperature probe to use with PXAE control panel.

VARIABLE MULTI FLOW SYSTEM

VMF System: The complete fittings of the VMF System management system are described in the dedicated sheet.
Some VMF components require coupling with other accessories, consult the relative documentation.

- **VMF-SIT 3 :** Thermostat Interface Board VMF. Mandatory accessory on the VED unit supplied with VMF-E0 / E1 thermostat.

Accessories compatibility

Mod. VED	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
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	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SW3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SIT 3*	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SIT 5**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PXAE	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
WMT05	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
WMT06	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
WMT10	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VCF45C	✔	✔	✔	✔	✔	✔	✔	✔								
VCF45H		✔		✔		✔		✔								
VCF47C									✔	✔	✔	✔	✔	✔	✔	✔
VCF47H										✔		✔		✔		✔
VCF25C	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VCF25H		✔		✔		✔		✔		✔		✔		✔		✔
VMF-SIT3***	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E0	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E1	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-SW	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-SW1	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E4	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E5B	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VMF-E5N	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

* SIT3 =Mandatory accessory on the VED units coupled to thermostats different to the VMF System
** SIT5 = Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel
*** VMF-SIT3 = Mandatory accessory for coupling with VMF-E0 or VMF-E1

Technical data

Mod. VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
Heating Capacity 70°C (heating only coil circuit)	W (nominal)	-	13875	-	8990	-	15020	-	9510	-	22800	-	14800	-	25080	-	15800
	W (max.) **(E)**	-	12090	-	8160	-	13540	-	8850	-	20500	-	13750	-	22180	-	14500
	W (med.) **(E)**	-	10725	-	7480	-	12850	-	8520	-	17750	-	12370	-	19720	-	13330
	W (min.) **(E)**	-	8280	-	6190	-	10720	-	7475	-	14690	-	10770	-	16730	-	11830
Water flow rate 70°C (heating only coil circuit)	l/h (nominal)	-	1193	-	773	-	1292	-	818	-	1961	-	1273	-	2157	-	1359
	l/h (max.)	-	1040	-	702	-	1164	-	761	-	1763	-	1183	-	1907	-	1247
	l/h (med.)	-	922	-	643	-	1105	-	733	-	1527	-	1064	-	1696	-	1146
	l/h (min.)	-	712	-	532	-	922	-	643	-	1263	-	926	-	1439	-	1017
70°C water pressure drop (heating only coil circuit)	kPa (nominal)	-	22	-	32	-	25	-	35	-	33	-	31	-	39	-	34
	kPa (max.) **(E)**	-	17	-	27	-	21	-	31	-	27	-	27	-	31	-	30
	kPa (med.) **(E)**	-	14	-	23	-	19	-	29	-	21	-	23	-	25	-	26
	kPa (min.) **(E)**	-	9	-	17	-	14	-	23	-	15	-	18	-	19	-	21
Heating capacity 50°C	W (nominal)	10420	-	11950	-	11340	-	13110	-	18220	-	19600	-	20060	-	21820	-
	W (max.) **(E)**	9475	-	10740	-	10420	-	11820	-	16070	-	17930	-	17280	-	19150	-
	W (med.) **(E)**	8250	-	9130	-	9775	-	11050	-	13500	-	14940	-	15120	-	16680	-
	W (min.) **(E)**	6195	-	6810	-	8190	-	9170	-	11100	-	11980	-	12640	-	13840	-
50°C water pressure drop (main coil circuit)	kPa (nominal)	17	-	24	-	19	-	29	-	57	-	37	-	69	-	43	-
	kPa (max.) **(E)**	13	-	19	-	16	-	23	-	48	-	32	-	57	-	35	-
	kPa (med.) **(E)**	11	-	15	-	15	-	21	-	36	-	24	-	44	-	28	-
	kPa (min.) **(E)**	7	-	9	-	11	-	16	-	26	-	17	-	33	-	21	-
Total cooling capacity	W (nominal)	8010	8010	9290	9290	8660	8660	10280	10280	13900	13900	16450	16450	15360	15360	18100	18100
	W (max.) **(E)**	6950	6950	8010	8010	7760	7760	8970	8970	12530	12530	15180	15180	13850	13850	16080	16080
	W (med.) **(E)**	6150	6150	7060	7060	7395	7395	8545	8545	10700	10700	12760	12760	12200	12200	14230	14230
	W (min.) **(E)**	4685	4685	5340	5340	6160	6160	7435	7435	8890	8890	10430	10430	10400	10400	11960	11960
Sensitive cooling capacity	W (nominal)	6225	6225	6675	6675	6755	6755	7255	7255	11500	11500	11590	11590	12770	12770	12800	12800
	W (max.) **(E)**	5360	5360	5735	5735	6020	6020	6450	6450	10300	10300	10660	10660	11440	11440	11320	11320
	W (med.) **(E)**	4715	4715	5040	5040	5715	5715	6130	6130	8750	8750	8910	8910	9990	9990	9970	9970
	W (min.) **(E)**	3545	3545	3785	3785	4720	4720	5040	5040	7220	7220	7240	7240	8480	8480	8340	8340
Water flow rate (cooling)	l/h (nominal)	1378	1378	1598	1598	1490	1490	1768	1768	2391	2391	2829	2829	2642	2642	3113	3113
	l/h (max.)	1195	1195	1378	1378	1335	1335	1543	1543	2155	2155	2611	2611	2382	2383	2766	2766
	l/h (med.)	1058	1058	1214	1214	1272	1272	1470	1470	1840	1840	2195	2195	2098	2098	2448	2448
	l/h (min.)	806	806	918	918	1060	1060	1279	1279	1529	1529	1794	1794	1789	1789	2057	2057
Water head loss (cooling)	kPa (nominal)	22	22	30	30	26	26	37	37	58	58	47	47	70	70	56	56
	kPa (max.) **(E)**	17	17	22	22	21	21	28	28	48	48	41	41	58	58	45	45
	kPa (med.) **(E)**	13	13	17	17	19	19	25	25	36	36	30	30	46	46	37	37
	kPa (min.) **(E)**	8	8	10	10	13	13	19	19	26	26	21	21	35	35	27	27
Air flow rate	m³/h (nominal)	1520	1520	1520	1520	1700	1700	1700	1700	2450	2450	2450	2450	2800	2800	2800	2800
	m³/h (max.) **(E)**	1350	1250	1340	1250	1520	1460	1500	1460	2210	2110	2200	2110	2410	2350	2380	2350
	m³/h (med.) **(E)**	1130	1060	1100	1060	1400	1360	1380	1360	1800	1730	1770	1730	2040	2000	2020	2000
	m³/h (min.) **(E)**	790	750	780	750	1120	1060	1100	1060	1380	1340	1370	1340	1640	1600	1620	1600
Useful static pressure (with filter installed)	Pa (nominal)	55	40	50	40	40	30	35	30	68	53	63	53	47	37	42	37
	Pa (max.) **(E)**	72	70	70	70	58	56	56	56	75	75	75	75	69	69	69	69
	Pa (med.) **(E)**	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pa (min.) **(E)**	24	25	24	25	32	32	32	32	30	30	30	30	32	32	32	32
Motor speed connections	(nominale)	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5
	(max.) **(E)**	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5
	(med.) **(E)**	V3	V3	V3	V3	V4	V4	V4	V4	V3	V3	V3	V3	V3	V3	V3	V3
	(min.) **(E)**	V1	V1	V1	V1	V2	V2	V2	V2	V1	V1	V1	V1	V1	V1	V1	V1
Input power	W (nominal)	238	242	240	242	283	281	282	281	376	376	376	376	411	411	411	411
	W (max.) **(E)**	228	215	222	215	270	265	267	265	339	339	339	339	371	371	371	371
	W (med.) **(E)**	182	175	178	175	232	229	230	229	268	268	268	268	285	285	285	285
	W (min.) **(E)**	137	130	135	130	175	269	172	169	224	224	224	224	234	234	234	234
Maximum input power	W	290	290	290	290	300	300	300	300	436	436	436	436	440	440	440	440
Maximum input current	A	1,4	1,4	1,4	1,4	1,35	1,35	1,35	1,35	2,07	2,07	2,07	2,07	2,00	2,00	2,00	2,00
Protection rating		IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Number of fans	n°	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Coil connections (main)	ø Gas (Female)	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″	3/4″
Coil connections (heating only)	ø Gas (Female)	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″	-	1/2″
Net Weight	kg	41	45,5	43	45,5	41	45,5	43	45,5	57	63	60	63	57	63	60	63
Gross Weight	kg	44	48,5	46	48,5	44	48,5	46	48,5	72	78	75	78	72	78	75	78

The performance refers to the following conditions:
(E) : Cetificate Data in compliance with the Eurovent FCP Program
- Electric power supply: 230V~50Hz
- Class G3 air filter installed
- The nominal speed represents the upper limit of the air flow rate for which the heat exchanger has been dimensioned

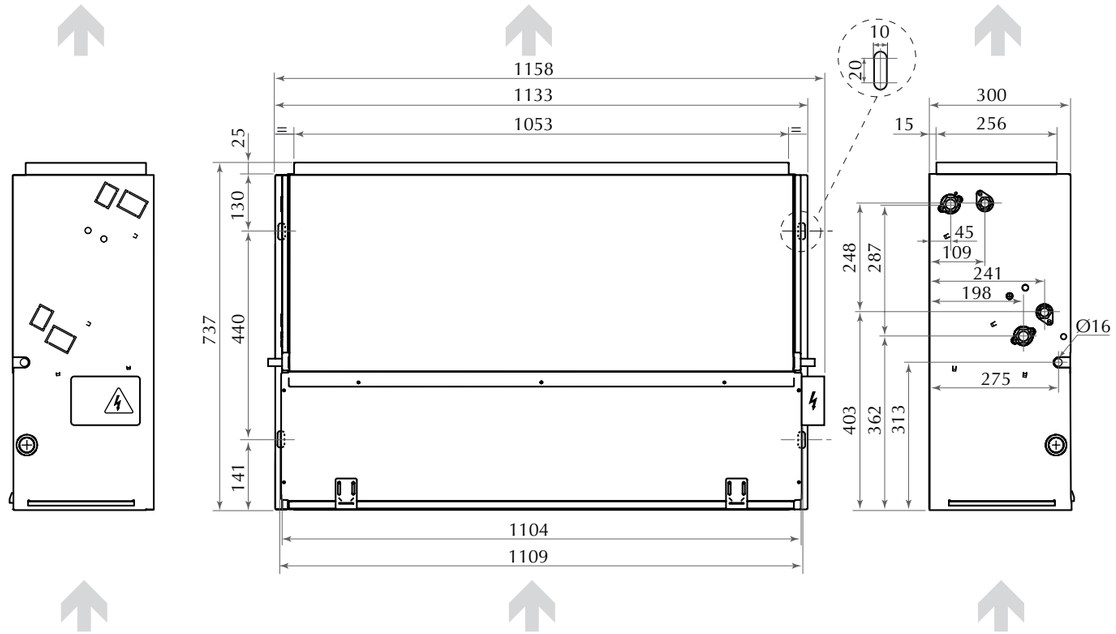
Cooling (Eurovent):
- Inlet air temperature D.B. = 27°C
- Inlet air temperature W.B. = 19°C
- Water inlet temperature = 7°C
- Outlet water temperature = 12°C
- Water flow rate depending on the Dtw constant

Heating 50°C (Eurovent):
- Inlet air temperature D.B. = 20°C
- Inlet air temperature W.B. = 15°C
- Water inlet temperature = 50°C
- Water flow rate as in the cooling test

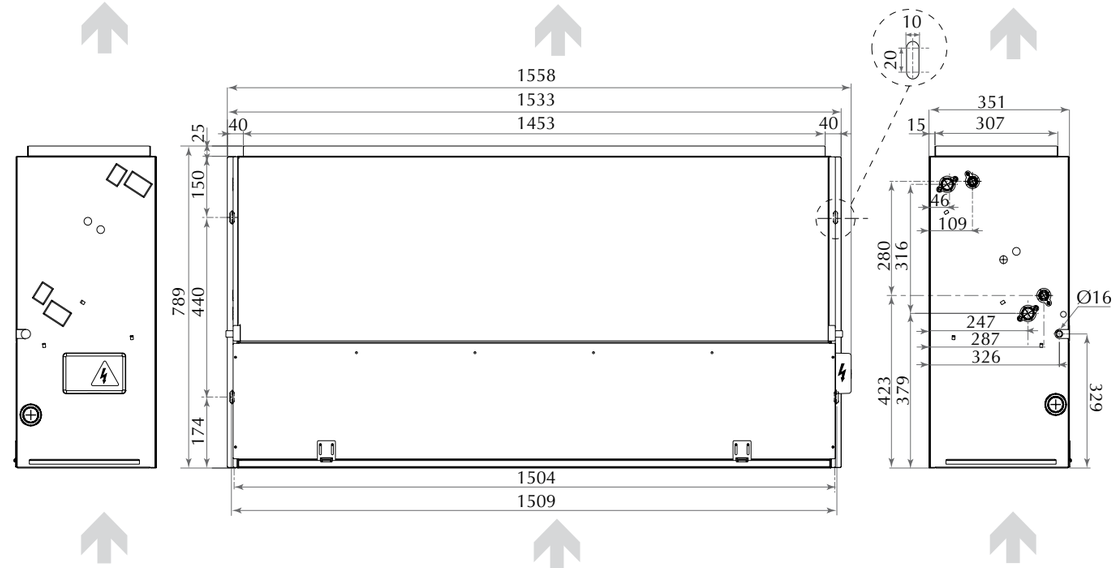
Heating 70°C (Eurovent):
- Inlet air temperature D.B. = 20°C
- Inlet air temperature W.B. = 15°C
- Water inlet temperature = 70°C
- Outlet water temperature = 60°C
- Water flow rate depending on the Dtw constant

Dimensional data (mm)

VED: 430 - 432 - 440 - 441 - 530 - 532 - 540 - 541



VED: 630 - 632 - 640 - 641 - 730 - 732 - 740 - 741



Code : SVEDUY.00 / 1101

TS

Air handling units with cooling capacity from 4.85 up to 24.8 kW



Characteristics

- Compact unit for horizontal installation
- Structure made of Aluzink 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
- 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

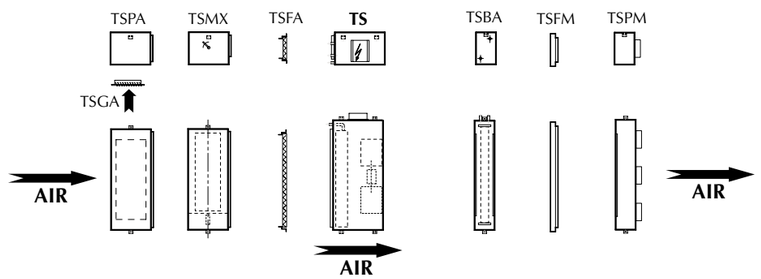
Coil:
3 - 3-row coil
4 - 4-row coil
6 - 6-row coil

Example of the commercial code: **TS34**
This is a **TS** unit, size **3**, with **4**-row coil.

Models available:
TS 13
TS 16
TS 23
TS 34
TS 36
TS 43
TS 46
TS 53
TS 56
TS 63
TS 74
TS 76

Accessories

- **TSBA:** 2-row coil for post-heating, contained in a delivery installation plenum
- **TSFA:** Class G3 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).
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT20AW 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 FMT20AW panel. Two SWA probes can be connected simultaneously to the FMT20AW panel.
- **Control panels:**the characteristics of the control panels are described on the appropriate card.



Technical data

Model		TS 13	TS 16	TS 23	TS 34	TS 36	TS 43	TS 46	TS 53	TS 56	TS 63	TS 74	TS 76
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	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	80	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	120	120	120	120	120	120	120	120	120	120	120	120
Maximum operating pressure	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	n°.	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	90	90	147	147	147	184	184	184	184	420	600	600
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.

Performance values refer to the following conditions:
(1) rated capacity (maximum speed) without air filter;
(2) air filter (TSFA accessory) at rated capacity;

Cooling:
- Internal air temperature 27 °C B.S. ; 19 °C B.U.
- Water inlet temperature 7 °C ;
- Δt = 5 °C

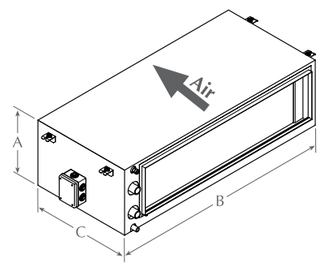
Heating:
- Internal air temperature 20 °C
- Water inlet temperature 70 °C
- Δt = 10 °C

Compatibility of accessories

TS	TSBAx	TSFAx	TSFMx	TSGAx	TSMXx	TSPAx	TSPMx	FMT10	PXAE	WMT	SWA**
	10	10	10	10	10	10	10	10		05	
	20/30	20/30	20/30	20/40	20/30	20/30	20/30	20AW		10	
	40	40	40		40	40	40				
	50	50	50	50/60/70	50	50	50				
	60/70	60/70	60/70		60/70	60/70	60/70				
13 - 16	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
23	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
34 - 36	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
43 - 46	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
53 - 56	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
63	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(x 1-2)
74 - 76	✔*	✔*	✔*	✔*	✔*	✔*	✔*	✔	✔	✔	✔(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 FMT20AW control panels.

Dimensions (mm)



		TS13	TS16	TS23	TS34	TS36	TS43	TS46	TS53	TS56	TS63	TS74	TS76
Height (A)	[mm]	296	296	296	296	296	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.02 / 0909

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.
- **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

Compatibility of accessories

	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

Compatibility of accessories

	TDA09	TDA15	TDA21	TDA 28	TDA 37
BR	BR1	BR2	BR3	BR4	BR5
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

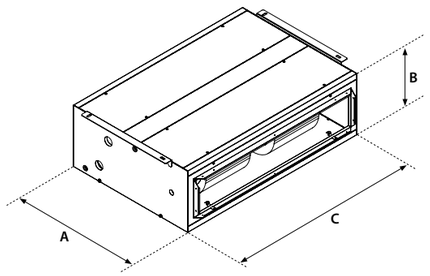
Code:
TDA
Size:
09, 15, 21, 28, 37
Version:
3 - 3-row water coil
4 - 4-row water coil
E - 2-row direct expansion coil
X - Extractor (without coil)

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″

(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.01 / 0911

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      |  Configuration   |
          |                  |
          |                  |
        Size               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.
- **B1R 1 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.
- **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.
- **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
B1R	B1R1	B1R1	B1R2	B1R3	B1R4	B1R4	B1R5	B1R5
B2R	B2R1	B2R1	B2R2	B2R3	B2R4	B2R4	B2R5	B2R5
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)

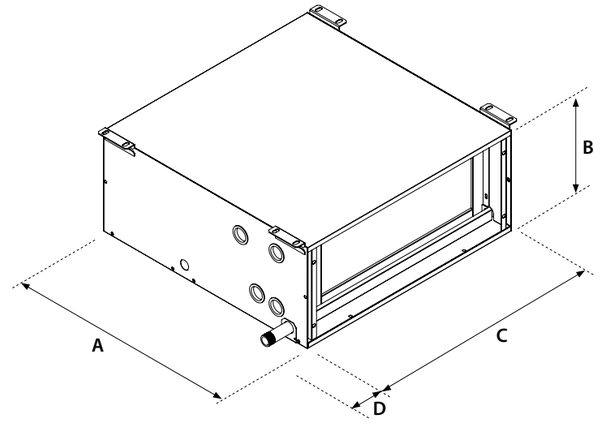
(1) Envision the use of SIT and the replacement of the 2A fuse with one 4A fuse
(2) Envisions return relay, one per speed

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

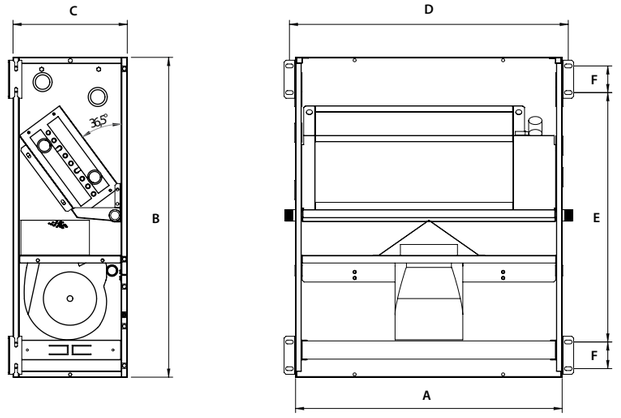
(1) At nominal capacity with 4 row coil
(2) Entry air temperature 27°C d.b. 19°C w.b.; water temperature (Ent-Ex) 7°C - 12°C
(3) Entry air temperature 27°C d.b. 19°C w.b.; medium evap. temperature 2°C
(4) Entry air temperature 10°C; Water temperature (Ent-Ex) 70°C - 60°C
(5) Entry air temperature 20°C; 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								

Cod.: STAUY.00 / 0910

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
X - Extractor

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. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied.

• **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.

• **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**

• **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)

• **WMT 10 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	PBE1	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
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	FPI1	FPI2	FPI3	FPI4	FPI4	FPI5
PX	•	•	•	•	•(2)	•(2)
WMT 05	•	•(1)	•(1)	•(1)	•(2)	•(2)
WMT 10	•	•(1)	•(1)	•(1)	•(2)	•(2)

(1) SIT3 is to be used and the 2A fuse is to be replaced with a 4A fuse
(2) Install a replay, 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 (3)	total	kW	5,5	9,3	12,1	16	25,9	6,4	30,8
6-row coil (3)	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 (4)		m3/h	900	1500	2000	2500	4000	900	4000
Static pressure		Pa	110	150	170	150	120	330	220
Fan input current		W	357	713	886	874	1771	713	1771
Fan power supply		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 (5) std/opt	STD/OPT		G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4
Efficiency of bag filters (6)			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"

(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 10°C
Water temperature inlet 70°C
Water temperature outlet 60°C

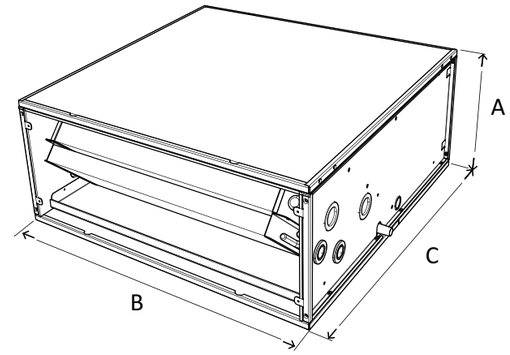
(3) Temperature of incoming air 20°C
Water temperature inlet 45°C
Water temperature outlet 50°C

(4) At nominal flow rate with 4-row coil

(5) In compliance with EN 779

(6) In compliance with UNI EN ISO 9614-2

Dimensional data (mm)



TUN HORIZONTAL INSTALLATION WITH EXTRACTOR

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.02 / 1106

T (standard)

Air handling unit with cooling capacity from 15.6 up to 137.8 kW



The T series constitutes an alternative to the air handling units in the range with flow rates from 3000 to 20000 m3/h in cases where requirements are limited to the filtration, cooling and/or heating for civil and industrial buildings.

The units from "T" series are manufactured for vertical installation with delivery outlet at the top, front suction and left hand connections.

Both "standard" models and those to be "configured" can be rotated on site to get different configurations (refer to manuals for models to be configured).

Features

- Frame in aluminium profiles with black nylon corner pieces and pre-plastified steel panelling
- Sandwich panels with injected polyurethane core (density 40 kg/m3), total thickness is 25 mm
- Delivery plenum with internal sound insulating lining
- Adjustable speed double suction radial fans
- Vee belt and pulley transmission; adjustable diameter driving pulley
- UNELMEC normalized motors (protection factor IP 55 and insulation class F)
- Modular structure offering the maximum versatility of installation
- Effective static pressure sufficient for connection to extensive duct networks
- Heat exchangers with 4 or 6 rows for heating and/or cooling
- Synthetic G3 class pleated filters
- Elastomer dampers under the motor cradle and on upper side of fan unit

Accessories

- **GC:** Cooling section intake grille. In anodized aluminium with single row of fixed slats.
- **M:** Delivery plenum. Made using same panelling as basic unit but equipped with an internal layer of sound insulating material. To be adopted in non-ducted installations for the delivery of processed air into the building through a louver with two rows of angle-adjustable slats. Outlet louver in anodized aluminium.
- **P**: Feet kit. Feet in galvanized steel; height of unit increases by 50 mm.

Designation codes for T series units

Position	Code	Description
1°	T	T series
	1	nominal flow rate 3000 m3/h
	2	nominal flow rate 4000 m3/h
	3	nominal flow rate 5600 m3/h
2°	4	nominal flow rate 7600 m3/h
	5	nominal flow rate 10800 m3/h
	6	nominal flow rate 14000 m3/h
	7	nominal flow rate 20400 m3/h
3°	4	air conditioning section with 4-row coil
	6	air conditioning section with 6-row coil

Technical data

4-row coil		T14	T24	T34	T44	T54	T64	T74
Cooling capacity	kW	15,6	20,6	30,2	39,8	56,6	68,1	98
Heating capacity	kW	32	42,3	60,1	80,6	114	154,2	224
Max. effective static pressure	Pa	138	174	253	235	246	290	271
Nominal air flow rate	m3/h	3000	4000	5600	7600	10800	14000	20400
Coil surface area	m2	0,332	0,432	0,615	0,815	1,141	1,485	2,16
Motor power	kW	0,55	0,75	1,1	1,5	2,2	3	4

6-row coil		T16	T26	T36	T46	T56	T66	T76
Cooling capacity	kW	20,1	25,8	38,1	53	76,1	95,3	137,8
Heating capacity	kW	39	51,4	73	99,3	141	188,9	274,7
Max. effective static pressure	Pa	117	151	228	210	220	268	249
Nominal air flow rate	m3/h	3000	4000	5600	7600	10800	14000	20400
Coil surface area	m2	0,332	0,432	0,615	0,815	1,141	1,485	2,16
Motor power	kW	0,55	0,75	1,1	1,5	2,2	3	4

Power supply = 3~ 230V 50Hz; 3~ 400V 50Hz

Performance values refer to the following conditions:

Cooling:
- room air temperature 27 °C D.B., 19 °C W.B.;
- water temperature 7 - 12 °C.

Heating:
- room air temperature 20 °C;
- water temperature 70 - 60 °C.
- pressure measured with dry coil.
- nominal air flow rate.

Selection

Modularity

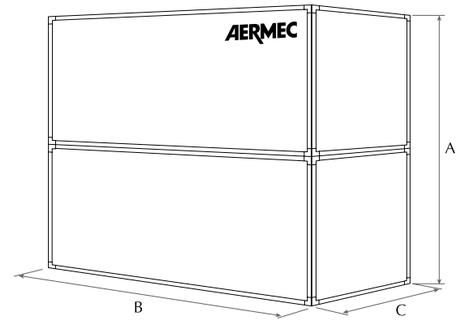
The T (standard) series is composed of the following sections for each size:

-Ventilating section.

-Housing section for cooling coil, condensate drip tray and filter.

For different configurations refer to manuals for models to be configured.

Dimensions (mm)



		T14/T16	T24/T26	T34/T36	T44/T46	T54/T56	T64/T66	T74/T76
Height	A	1300	1300	1480	1480	1740	1740	2260
Width	B	1100	1350	1500	1900	1900	2560	2560
Depth	C	650	650	740	740	870	870	1130

Cod.: STSUY.00 / 0106

T

Air handling unit with cooling capacity from 8.8 up to 137.8 kW



the photo is just an example.

The T series constitutes an alternative to the air handling units in the range with flow rates from 3000 to 20000 m3/h in cases where requirements are limited to the filtration, cooling and/or heating for civil and industrial buildings.

T series units are suitable for ducted or non-ducted installations. The appliances can be equipped with numerous accessories on the intake and delivery sides. T series appliances can be installed vertically or horizontally, with intake and delivery sides oriented with the maximum freedom.

Features

- Frame in aluminium profiles with black nylon corner pieces and pre-plastified steel panelling
- Sandwich panels with injected polyurethane core (density 40 kg/m3), total thickness is 25 mm
- Delivery plenum with internal sound insulating lining
- Adjustable speed double suction radial fans
- Vee belt and pulley transmission; adjustable diameter driving pulley
- UNELMEC normalized motors (protection factor IP 55 and insulation class F)
- Modular structure offering the maximum versatility of installation
- Effective static pressure sufficient for connection to extensive duct networks
- Heat exchangers with 2, 3, 4 or 6 rows for heating and/or cooling
- Synthetic G3 class pleated filters
- Elastomer dampers under the motor cradle and on upper side of fan unit

Accessories

- **GC:** Cooling section intake grille. In anodized aluminium with single row of fixed slats.
- **GR**: Heating section intake grille. In anodized aluminium with single row of fixed slats.
- **M**: Delivery plenum. Made using same panelling as basic unit but equipped with an internal layer of sound insulating material. To be adopted in non-ducted installations for the delivery of processed air into the building through a louver with two rows of angle-adjustable slats. Outlet louver in anodized aluminium.
- **MO**: Intake plenum with two dampers (recirculation and fresh air intake) for horizontal installations. The plenum is effectively an air mixing chamber equipped one damper on the front and the other on the top. Opposing slat type dampers made of aluminium.
- **MV:** Intake plenum with two dampers (recirculation and fresh air intake) for vertical horizontal installations. The plenum is effectively an air mixing chamber equipped one damper on the front and the other on the rear. Opposing slat type dampers made of aluminium.
- **P:** Feet kit. Feet in galvanized steel; height of unit increases by 50 mm.
- **RC:** Intake plenum with front grille. Similar to plenum RT but with anodized aluminium grille with single row of fixed slats: used when air is drawn in directly from the room in which the air conditioning unit is installed.
- **RF:** Intake plenum with front grille and partial lateral opening. Similar to plenum RC but with partial opening on one of the side panels to accept a flanged intake duct supplying part of the intake air from a different room or from an external louver.
- **RP:** Intake plenum with front grille and partial flow lateral damper. Similar to plenum RC but equipped with a smaller damper on one of the side panels to adjust intake air flow from another room or from an external louver.
- **RS:** Intake plenum with front grille and full size lateral damper. Similar to plenum RC but one of the side panels is replaced with a damper to adjust the intake air flow from another room or from an external louver.
- **RT:** Intake plenum with front opening for connection to the suction duct. Made using the same panel type as the basic T series conditioning unit.
- **RV:** Intake plenum with front grille and full size lateral opening. Similar to plenum RC but without one of the lateral panels to provide the facility for flanging an intake duct to supply part of the air flow from another room or from an external louver.

Technical data

			T1	T2	T3	T4	T5	T6	T7
Cooling capacity	2R	kW	8,8	12,7	17,6	23,6	33,5	38	69,9
	3R	kW	12,6	17	24,4	32,6	45,6	53	81,4
	4R	kW	15,6	20,6	30,2	39,8	56,6	68,1	98
	6R	kW	20,1	25,8	38,1	53	76,1	95,3	137,8
Heating capacity	2R	kW	20	26,9	37,8	50,8	71,9	98	150
	3R	kW	26,8	35,6	50,4	67,7	95,5	129,3	190,4
	4R	kW	32	42,3	60,1	80,6	114	154,2	224
	6R	kW	39	51,4	73	99,3	141	188,9	274,7
Max. effective static pressure	2R	Pa	164	199	277	259	271	310	297
	3R	Pa	151	185	265	247	258	299	284
	4R	Pa	138	174	253	235	246	290	271
	6R	Pa	117	151	228	210	220	268	249
Nominal air flow rate		m3/h	3000	4000	5600	7600	10800	14000	20400
Coil surface area		m2	0,332	0,432	0,615	0,815	1,141	1,485	2,16
Motor power		kW	0,55	0,75	1,1	1,5	2,2	3	4

Power supply = 3~ 230V 50Hz; 3~ 400V 50Hz.

Performance values refer to the following conditions:
Cooling:
- room air temperature 27 °C D.B., 19 °C W.B.;
- water temperature 7 - 12 °C.

Heating:
- room air temperature 20 °C;
- water temperature 70 - 60 °C.
- pressure measured with dry coil.
- nominal air flow rate.

Selection

Modularity
The T series is composed of the following sections for each size:
- Ventilating section.
- Housing section for heating coil and filter.
- Housing section for cooling coil, condensate drip tray and filter.
- Delivery plenum section.
- Intake plenum section.

Individual units can be configured as follows (components given in sequence following air flow path).

Heating only:
- Heating coil section + ventilating section
- Heating coil section + ventilating section + delivery plenum
- Intake section + heating coil section + ventilating section
- Intake plenum + heating coil section + ventilating section + delivery plenum

Cooling only or heating/cooling with dual function coil:
- Cooling coil section + ventilating section
- Cooling coil section + ventilating section + delivery plenum
- Intake plenum + cooling coil section + ventilating section
- Intake plenum + cooling coil section + ventilating section + delivery plenum

Cooling and post-heating:
- Cooling coil section + heating coil section + ventilating section
- Cooling coil section + heating coil section + ventilating section + delivery plenum
- Intake plenum + cooling coil section + heating coil section + ventilating section
- Intake plenum + cooling coil section + heating coil section + ventilating section + delivery plenum.

Pre-heating and cooling:
- Heating coil section + cooling coil section + ventilating section
- Heating coil section + cooling coil section + ventilating section + delivery plenum
- Intake plenum + heating coil section + cooling coil section + ventilating section
- Intake plenum + heating coil section + cooling coil section + ventilating section + delivery plenum.

Special designs
The following special designs are available to order:

- 4/6 pole motor
- 4/8 pole motor
- 2R superheated water coil (heavy gauge CuAl)
- 3R superheated water coil (heavy gauge CuAl)
- 4R superheated water coil (heavy gauge CuAl)
- 3R direction expansion coil
- 4R direction expansion coil
- Ventilating section supplied without motor so that customer can install preferred type.

Designation codes for T series units

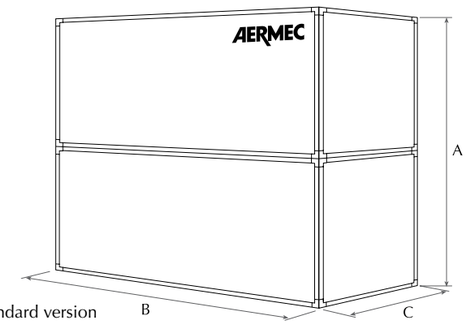
Position	Code	Description
1°	T	T series
2°	1	nominal flow rate 3000 m3/h
	2	nominal flow rate 4000 m3/h
	3	nominal flow rate 5600 m3/h
	4	nominal flow rate 7600 m3/h
	5	nominal flow rate 10800 m3/h
	6	nominal flow rate 14000 m3/h
	7	nominal flow rate 20400 m3/h
3°	0	no air conditioning sections
	2	air conditioning section with 2-row coil
	3	air conditioning section with 3-row coil
	4	air conditioning section with 4-row coil
	6	air conditioning section with 6-row coil
4°	0	no heating section
	2	heating section with 2 row coil
	3	heating section with 3 row coil
	4	heating section with 4 row coil
5° 6°	GC	conditioning section intake grille
	GR	heating section intake grille
	MO	two-damper inlet plenum for horizontal installation
	MV	two-damper inlet plenum for vertical installation
	RC	intake plenum with recirculation grille and side panel
	RF	intake plenum with recirculation grille and panel with opening for fresh air intake
	RP	intake plenum with recirculation grille and partial size fresh air damper
	RS	intake plenum with recirculation grille and full size fresh air damper
	RT	frontal openining inlet plenum
	RV	intake plenum with recirculation grille and no side panel
	00	no air intake accessories
7°	M	delivery plenum with double row of slats on louver
	0	no delivery plenum
8°	P	feet
	0	no feet accessory
9°	1	vertical position of upper delivery outlet
	2	vertical position of front delivery outlet
	3	horizontal position of upper delivery outlet
	4	horizontal position of front delivery outlet
10°	A	intake from front
	I	intake from base
	P	intake from rear
11°	S	left hand connections, with cooling coil or only coil first
	D	right hand connections, with cooling coil or only coil first
	A	left hand connections, with heating coil first (for use only with two coils)
	B	right hand connections, with heating coil first (for use only with two coils)

The 11 character commercial code is made up by selecting the required option from the above table for each position.
Configuration of the unit is defined by the last three letters.

Example: a T series unit size 3, composed of a cooling section with 6 row coils, an intake plenum with external partial air intake damper and feet, vertical positioning with delivery outlet at the top, intake of the coil section at the base and right hand water connections (the connection side is considered when facing the machine with the motor on the left hand side and the connections on the opposite side), is designated with code T3 60 RP 0 P 1ID where:

T ----> T series unit
3 ----> Air flow rate of 5600 m3/h
6 ----> Cooling section with 6 row coil
0 ----> No heating section
RP ----> Intake grille with partial fresh air intake damper
0 ----> No delivery plenum
P ----> Feet
1 ----> Vertical type with air expulsion at top
I ----> Coil section air intake at base
D ----> Right hand water connections

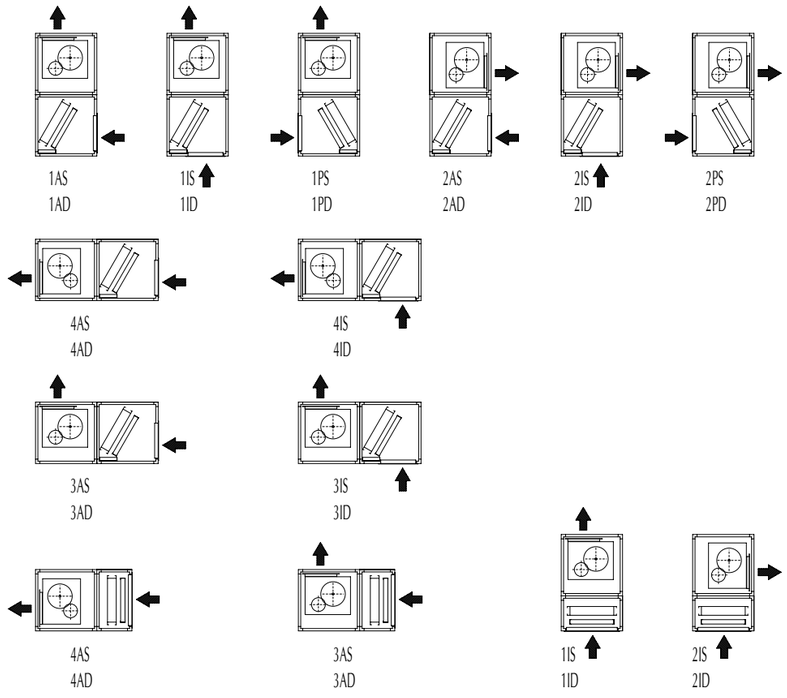
Dimensions (mm)



		T1	T2	T3	T4	T5	T6	T7
Height	A	1300	1300	1480	1480	1740	1740	2260
Width	B	1100	1350	1500	1900	1900	2560	2560
Depth	C	650	650	740	740	870	870	1130

Orientation

The ventilating sections and cooling coil sections are designed so that they can be oriented by altering the position of the intake side panel and the air transfer partition wall between the two sections. The coils can be turned upside down so that the water connections can be presented on the left or right hand sides. The connection side is defined when observing the unit with the fan motor on the left: the unit connections are left-handed when they are on the same side as the fan motor.
The following figures show all possible configurations for each of the two water connection sides.
In the designation code, orientation is referred to the unit without the delivery and intake plenums; note also that the intake side of the first coil should be considered in the direction of the air flow. For example, in the case of a unit composed of a heating coil, cooling coil and ventilating section, orientation must be selected from among the possibilities shown below.
Note: units in which the first component is the heating section must not be installed on the floor in the vertical version (1xx and 2xx).



Cod.: STUY.02 / 0912

UR Heat recovery unit



These units allow to extract a certain amount of exhaust air from the room and supply an equivalent quantity of fresh air.
A crossflow aluminium plate exchanger assures an efficient heat exchange between exhaust and fresh air: therefore the fresh air is pre-heated or pre-cooled according to the seasons.
The supply air is filtered before entering the heat recovery exchanger that is protected with a synthetic filter also at the exhaust air side.
The supply air can optionally be re-heated with a hot water coil or with an electric coil.

Features

- 7 sizes are available:
  UR: standard version
  UR W: same as standard version and equipped with water heating coil with copper tubes and 3 rows aluminium fins. Not to be used with chilled water
  UR E: same as standard versions and equipped with electric heating coil with aluminium fins and double safety thermostat
- Double suction centrifugal fans coupled directly to the electric motors, equipped with adjustable speeds via an electronic control to vary the flow rate
- G3 class synthetic filter on the air outlet
- Aluminium plate reheater housed in the condensate tray that is easily removed from the bottom
- G3 class synthetic filter on the fresh air intake
- Self-bearing panels made of galvanized plate with injected polyurethane insulation and thickness 20 mm.
- Galvanized condensate tray
- Fans can be inspected from the bottom
- Filters can be removed from the bottom for cleaning or replacement
- Two versions available for horizontal and vertical installation (it is not possible to install the cooling coil accessories and silencers for the vertical installation)
- Electronic Regulator with Slave Application allowing continuous variation of rotation speed and air flow rate

Accessories

- **BF**: Water cooling coil.
- **FGC**: Circular flanges.
- **G4**: High-efficiency filters on the fresh air intake in class G4.
- **MPW**: Module with 4-row water cooling coil and 1-row water post-heating coil.
- **MPX**: Module with 4-row water cooling coil and electric post-heating coil with reinforced finned coils. Safety thermostat included.
- **SE:** Free-Cooling control dampers.
- **SU**: Silencers.

Compatibility of accessories

Horizontal installation:

	UR 35	UR 55	UR 75	UR 100	UR 150	UR 210	UR 330
BF 35	✔						
BF 55		✔					
BF 75			✔				
BF 100				✔			
BF 150					✔		
BF 210						✔	
BF 330							✔
FGC 1	✔	✔	✔				
FGC 2				✔	✔		
G4 35	✔						
G4 55		✔					
G4 75			✔				
G4 100				✔			
G4 150					✔		
G4 210						✔	
G4 330							✔
MPW 35	✔						
MPW 55		✔					
MPW 75			✔				
MPW 100				✔			
MPW 150					✔		
MPW 210						✔	
MPW 330							✔
MPX 35	✔						
MPX 55		✔					
MPX 75			✔				
MPX 100				✔			
MPX 150					✔		
MPX 210						✔	
MPX 330							✔
SE 1	✔	✔					
SE 2			✔				
SE 3				✔	✔		
SE 4						✔	
SE 5							✔
SU 1	✔	✔					
SU 2			✔				
SU 3				✔	✔		
SU 4						✔	
SU 5							✔

Vertical installation:

	UR 35	UR 55	UR 75	UR 100	UR 150	UR 210	UR 330
FGC 1	✔	✔	✔				
FGC 2				✔	✔		
G4 35	✔						
G4 55		✔					
G4 75			✔				
G4 100				✔			
G4 150					✔		
G4 210						✔	
G4 330							✔
SE 1	✔	✔					
SE 2			✔				
SE 3				✔	✔		
SE 4						✔	
SE 5							✔

Technical data

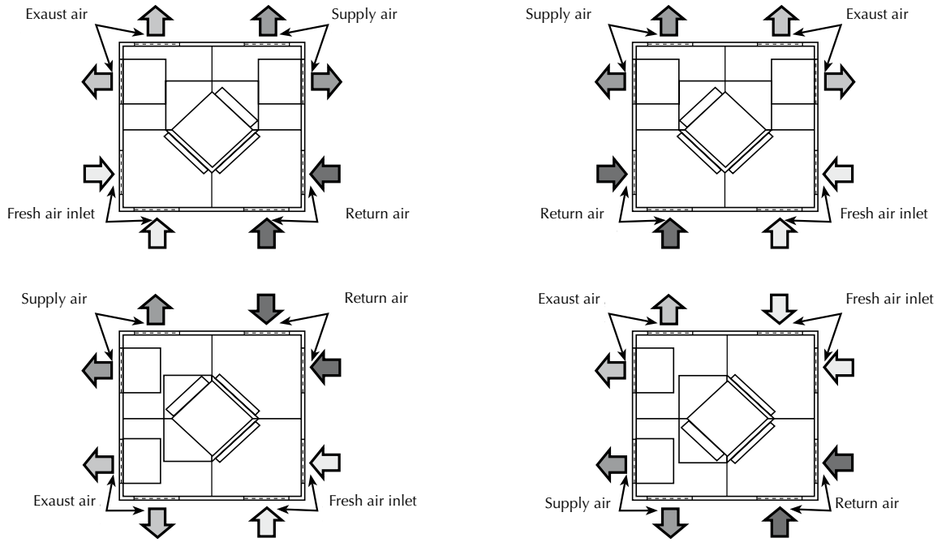
Mod.		**UR 35**	**UR 55**	**UR 75**	**UR 100**	**UR 150**	**UR 210**	**UR 330**
Air flow	m^3/h	350	550	750	1000	1500	2100	3300
Recoverer:								
Efficiency	%	52,1	55	54,3	54,4	53,1	52,7	52
Heat capacity recovered	kW	1,5	2,5	3,4	4,6	6,7	9,3	14,3
Cooling capacity recovered	kW	0,4	0,7	1	1,3	1,9	2,6	4,3
Output temperature	°C	8	8,7	8,6	8,6	8,3	8,2	8
Fan motor assembly:								
Fans	n.	2	2	2	2	2	2	4
Total input power	kW	0,27	0,44	0,65	1,12	1,12	2	4
Max. input current	A	1,1	1,7	2,8	5	5	8,6	17,2
Fan speed variation		continous	continous	continous	continous	continous	continous	continous
Available static pressure (Pa)	UR Standard	125	140	170	150	150	120	150
	UR E	115	130	160	140	140	110	140
	UR W	50	50	50	70	50	50	50
Electrical protection	IP	44	54	44	55	55	55	55
Insulation class		B	F	F	F	F	F	F
Filtres:								
EN779 Classification		G3	G3	G3	G3	G3	G3	G3
Efficiency	%	80	80	80	80	80	80	80
Water heating coil (UR W):								
Geometry		P2519	P2519	P2519	P2519	P2519	P2519	P2519
Rows	n.	3	3	3	3	3	3	3
Fin pitch	mm	1,8	1,8	1,8	1,8	1,8	1,8	2,1
Frontal surface area	m^2	0,027	0,047	0,052	0,092	0,119	0,165	0,237
Heating capacity (1)	kW	4,9	8,1	10,6	15,5	22,4	31	43
Air output temperature (1)	°C	48	50	48	52	51	50	46
Heating capacity (2)	kW	4,1	6,7	8,8	13	18,7	25,9	36,6
Air output temperature (2)	°C	41,2	43	41,3	45	43,6	43	39,5
Heating capacity (3)	kW	2,4	4	5,2	7,7	11,2	15,4	22
Air output temperature (3)	°C	27,7	28,7	27,8	30	29,2	29	27
Electric heating coil (UR E):								
Heating capacity	kW	3	3	6	6	10	15	25
Air side pressure drop	Pa	10	10	10	10	10	10	10
Stages	n.	2	2	2	2	3	3	3
Input current	A	4,6	4,6	9,1	9,1	15,2	22,7	37,9
Air output temperature (air 8 °C)	°C	34	25	32	26	28	29	31
Water cooling coil accessory with box to be positioned after the discharge fan:								
Frontal surface area	m2	0,075	0,075	0,1125	0,2125	0,2125	0,25	0,25
Rows	n.	4	4	4	4	4	4	4
Cooling capacity (4)	kW	2	3	4	6,9	8,8	12	17,5
Air side pressure drop	Pa	25	57	48	25	54	74	105

Power supply = 1~ 230V 50Hz (3N~ 400V 50 Hz per le resistenze elettriche).

Performance values refer to the following conditions:
- room air temperature 20 °C;
- ambient air temperature -5 °C.

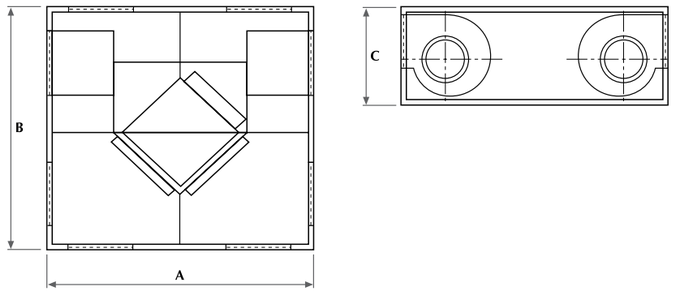
(1) air temp. 8 °C - water temp. 80/70 °C
(2) tair temp. 8 °C - water temp. 70/60 °C
(3) air temp. 8 °C - water temp. 45/40 °C
(4) air temp. 27 °C - HR 50% - water temp. 12/7 °C

Lay-out (horizontal configuration)



Warning : the above diagrams refer to the unit in horizontal configuration only.
For the vertical configuration, please consult the manual.

Dimensions (mm)



Mod. UR		**35**	**55**	**75**	**100**	**150**	**210**	**330**
Height	A	1090	1090	1190	1500	1500	1750	2500
Width	B	900	900	1000	1250	1250	1400	1750
Depth	C	300	300	330	390	390	390	390
Weight (kg)	UR Std	61	65	74	115	130	170	280
	UR E	62	66	75	117	133	174	286
	UR W	62	66	75	117	133	174	286

Cod.: SURUY.02 / 0405

HRS

Heat recovery unit



HORIZONTAL INSTALLATION

These units allow to extract a determined amount of air from the environment and replace it with fresh air.

An aluminium plate recovery unit allows effective heat exchange between the expulsion air flow and that of fresh air: the fresh air is pre-heated or pre-cooled in this way, depending on the season, at the cost of the expelled air.

The air introduced is filtered before passing through the recovery unit, which is protected from dirtying with a filter of the same type also on the expulsion side. The air introduced can also be post-heated int he versions with hot water heating coil.

Features

- Available in 8 sizes and 2 versions:
  HRS: standard version
  HRS W: version with additional hot water coil. It is used when post-heating is necessary. Available in models from 090 to 390.
- Horizontal installation.
- Panels realised in Aluzink sheet steel, removable for inspection and maintenance.
- Acoustic and heat insulation of the panels using polyethylene/polyester with average thickness of 20 mm.
- Condensate drip tray in ABS with low condensate drain connection.
- Air filters with G3 efficiency, easily extractable laterally, to allow periodical cleaning.
- Double intake centrifugal fans, coupled directly onto electric motors (with single intake for HRS 030).
- Terminal board on machine to ease the electric connections and fan control.
- Aluminium plate heat recovery unit housed in condensate drip tray.

Accessories

- **HRS_CS**: Section of water cooling/heating (with stainless steel condensate drip tray).
- **HRS_ED**: Regulation shutter.
- **HRS_S**: N° 4 circular connection kits for direct connection of the unit to the circular conduits.
  - HRS090S (ø 315 mm)
  - HRS160S (ø 355 mm)
  - HRS230S (ø 400 mm)
- **HRS_SC**: Electronic speed regulator.
- **HRS_AT**: Anti-freeze thermostat, allows to control that the temperature does not fall below a pre-established value. **Accessory installed in the factory, to be requested when placing the order for the HRS W version.**
- **PX**: Control panel with switch-over. Wall installation. (from size 090 to 300)
- **PX2**: Control panel with switch-over. Wall installation. (from size 090 to 300)

Accessories compatibility

	HRS 030	HRS 060	HRS 090 HRS 090W	HRS 160 HRS 160W	HRS 190 HRS 190W	HRS 230 HRS 230W	HRS 300 HRS 300W	HRS 390 HRS 390W
HRS090CS		✔						
HRS160CS				✔				
HRS190CS					✔			
HRS230CS						✔		
HRS300CS							✔	
HRS390CS								✔
HRS090ED			✔					
HRS160ED				✔				
HRS190ED					✔			
HRS230ED						✔	✔	✔
HRS090S			✔					
HRS160S				✔	✔			
HRS230S						✔	✔	✔
HRS030SC	✔							
HRS060SC		✔						
HRS01AT *	✔	✔	✔	✔	✔	✔	✔	✔
PX	✔	✔	✔	✔	✔	✔	✔	
PX2	✔	✔	✔	✔	✔	✔	✔	

* Accessory installed in the factory, **compatible only with HRS W version**, to be requested when placing the order.

Technical data

Mod.		HRS 030	HRS 060	HRS 090	HRS 160	HRS 190	HRS 230	HRS 300	HRS 390
Nominal air flow rate	m3/h	300	620	920	1580	1850	2250	2950	3920
Useful static pressure (1)	Pa	45	55	65	70	77	80	100	100
Total max input	A	0,75	1,8	2,2	4,4	4,8	5,2	8,3	5
♪ Sound Pressure	dB(A)	43	51	50	53	52	51	54	56
Recuperator									
Efficiency (2)	%	53	54	55	54	54	54	51	57
Recovered heating capacity (2)	kW	1,5	3,1	4,7	7,9	9,2	11,2	13,9	20,6
Conditioned air temperature (2)	°C	8,3	8,5	8,8	8,5	8,5	8,5	7,8	9,3
Efficiency (3)	%	46	48	48,5	47,5	47	47,5	45	50
Recovered cooling capacity (3)	kW	0,27	0,58	0,88	1,48	1,73	2,11	2,63	3,86
Conditioned air temperature (3)	°C	29,2	29,1	29,1	29,2	29,2	29,2	29,3	29
Fans									
Power	W	92 x 2	90 x 2	147 x 2	350 x 2	350 x 2	350 x 2	550 x 2	750 x 2
Poles	n°	4	4	4	4	4	4	4	4
Number of fans	n°	2	2	2	2	2	2	2	2
Number of speeds	n°	1(5)	1(5)	3	3	3	3	3	1
Protection rating	IP	44	44	44	44	44	55	44	55
Isolation class		F	F	F	F	F	F	F	F
Electric power supply		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	
Filters (1)									
Efficiency		G3	G3	G3	G3	G3	G3	G3	G3
Air front speed	m/s	0,9	1,7	2	2,3	2,7	1,8	2,5	2,8
Features of the water post-heating coil (HRS W) (4)									
Geometry	mm	-	-	25x22	25x22	25x22	25x22	25x22	25x22
Rows	n°	-	-	2	2	2	2	2	2
Pipes for row	n°	-	-	14	18	18	22	22	22
Louver pitch	mm	-	-	2,5	2,5	2,5	2,5	2,5	2,5
Heating capacity	kW	-	-	8,2	12,2	14,4	20,3	24,2	29,9
Air outlet temperature	°C	-	-	33,4	30,8	30,2	33,2	31,3	29,7
Air side pressure drop	Pa	-	-	25	32	35	24	36	38
Water side pressure drop	kPa	-	-	8	14	15	17	22	30
Collectors diameter	Ø gas	-	-	3/4	3/4	3/4	3/4	3/4	3/4
Weight	kg	-	-	2,5	2,5	2,5	5	5	6,5

The performance refers to the following conditions:

(1) Values referring to the nominal air flow rate including recovery unit and filters

(2) Winter nominal conditions:
- external air temperature: -5°C BS, UR 80%
- environmental air temperature: 20 °C BS, UR 50%
- nominal air flow rate

(3) Summer nominal conditions:
- external air temperature: 32 °C BS UR 50%
- environmental air temperature: 26 °C BS, UR 50%
- nominal air flow rate

(4) Heating:
- water input temperature: 70 °C
- Δt = 10 °C
- air input temperature: 8 °C
- nominal air flow rate

(5) Can be adjusted electronically with HRS_SC regulator accessory

♪ Noise pressure level: values referring to 1.5 m from machine intake in free field.

Mod.		HRS 030	HRS 060	HRS 090	HRS 160	HRS 190	HRS 230	HRS 300	HRS 390
Features of the water post-heating/cooling coil (HRS_CS)									
Geometry	mm	-	-	25x22	25x22	25x22	25x22	25x22	25x22
Rows	n°	-	-	3	3	3	3	3	3
Pipes for row	n°	-	-	16	22	25	26	26	26
Louver pitch	mm	-	-	2,1	2,1	2,1	2,1	2,1	2,1
Heating (6)									
Heating capacity	kW	-	-	13,2	19,4	25,7	33,9	38	44,7
Air outlet temperature	°C	-	-	45,1	43,1	44,4	46,9	43,4	40,9
Water flow rate	m3/h	-	-	1,2	1,7	2,3	3	3,3	3,9
Water side pressure drop	kPa	-	-	4	11	20	18	21	22
Air side pressure drop	Pa	-	-	29	38	36	25	38	53
Cooling (7)									
Cooling capacity	kW	-	-	5,4	9,1	12,3	16,3	18,3	21,6
Sensitive cooling capacity	kW	-	-	3,8	6,1	8	10,6	11,9	14,3
Air outlet temperature	°C	-	-	19,2	19	18,7	17,9	18,7	19,5
Water flow rate	m3/h	-	-	0,92	1,57	2,04	2,87	3,15	3,7
Water side pressure drop	kPa	-	-	4	14	27	26	31	26
Air side pressure drop	Pa	-	-	38	48	50	40	52	56

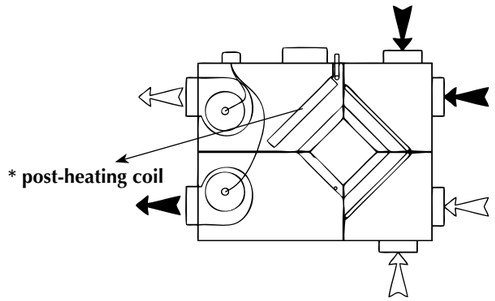
The performance refers to the following conditions:

(6) Heating
- air input temperature 12 °C,
- water input temperature 70 °C
- Δt = 10 °C
- nominal air flow rate

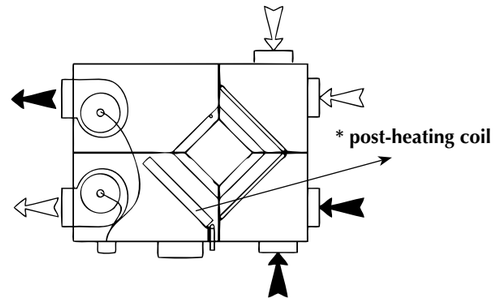
(7) Cooling
- air input temperature 30 °C, UR 50%
- water input temperature 7 °C
- Δt = 5 °C
- nominal air flow rate

Internal layout (configurations available)

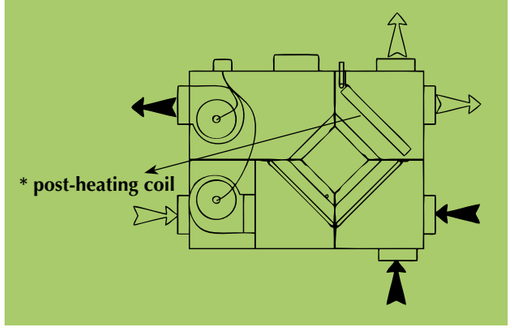
ORIENTATION TYPE 01



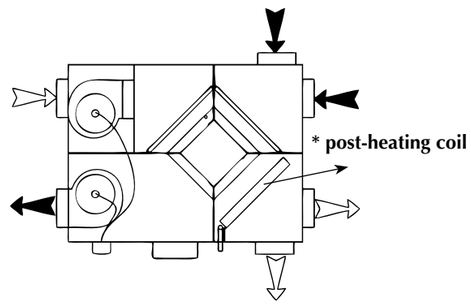
ORIENTATION TYPE 02



ORIENTATION TYPE 03 STANDARD



ORIENTATION TYPE 04



ORIENTATION TYPE 03 (STANDARD)
ORIENTATION TYPE 01 / 02 / 04: TO BE REQUESTED WHEN PLACING THE ORDER

*** post-heating coil:**
ONLY AVAILABLE ON HRS W VERSION

Key:



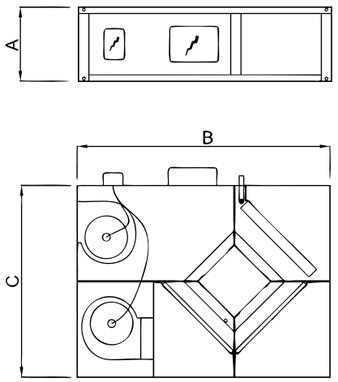
Air expelled

Fresh air

Dimensional data (mm)

Accessories compatibility					
Mod. HRS		**HRS 030**	**HRS 060**	**HRS 090**	**HRS 160**
Height	A	290	290	410	500
Length	B	990	990	1140	1300
Width	C	750	750	860	860
Weight (kg)		41	45	80	125

Mod. HRS		**HRS 190**	**HRS 230**	**HRS 300**	**HRS 390**
Height	A	500	600	600	600
Length	B	1380	1650	1650	1750
Width	C	960	1230	1230	1230
Weight (kg)		138	160	174	190



Cod.: SHRSUY.01 / 1003

UR CF

Heat recovery unit with refrigerant circuit included

R407C

In addition to the ventilation, filtering and recovery sections, the UR-CF series also enclosed a heat pump cooling circuit with R407C coolant in a monobloc unit. All this creates a complete machine that independently operates in every season, able to combine necessary air exchange in rooms with efficient heat recovery.

The precise machine design has also combined very compact dimensions for cassette installation without sacrificing accessibility for internal component maintenance.



Features

TRUCTURE AND PANELLING:
- 20 mm thick galvanised sheet self-supporting sandwich panels insulated with injected polyurethane (40 kg/m3 density)
- construction method able to simplify all maintenance

FAN GROUP:
- dual suction centrifugal fans directly coupled with electric motors

FILTERING:
- corrugated laid cell type filters (48 mm thick), class G3 (80% weight efficiency), located at both supply and recovery

HEAT REGENERATOR:
- static cross flow type with aluminium plates
- peralluman condensation collection tank

COOLING CIRCUIT:
- heat pump with scroll compressor, optimised to guarantee high yield and low noise levels

REGULATION:
- unit equipped with switchboard complete with power and regulation sections even of 3-way valves and servo drives if installed
- remote control terminal capacity (temperature)
- adjustable fans speede
- standard filter cleanliness meter control

Accessories

- **FCE**: free-cooling complete with control to be added to the existent one. Free-cooling operations only occur if the unit is in summer mode, if the outside air temperature is least 10°C less than indoor air temperature and if the compressor protection control permits it.
- **FGC**: circular flanges. Each accessory is made up of a flange to be coupled with one of the unit's rectangular outlets
- **G4F**: efficiency filters to be used instead of class G3 standard filters..
- **MBC**: box complete with 2-level hot water battery to be applied on the air supply. 3-way valves and relevant on-off type servo drives are included..
- **MBX**: box complete with single-stage electric battery with reinforced fin elements, with dual safety thermostat, automatic and manual reset, to be applied on the air supply
- **SUF**: module with silencers, in specific box. The accessory is made up of two modules, one for the supply and another for the recovery.

Compatibility of accessories

	UR 75 CF	UR 100 CF	UR 150 CF	UR 210 CF	UR 320 CF
FCE	7	10	15	21	33
FGC	7	10	15	21	
G4F	7	10	15	21	33
MBC	7	10	15	21	33
MBX	7	10	15	21	33
SUF	7	10	15	21	33

Technical data

Mod. UR		075 CF	100 CF	150 CF	210 CF	320 CF
Nominal air capacity (*)	m3/h	750	1000	1500	2100	3300
Minimum air capacity	m3/h	640	850	1275	1785	2800
Static pressure available in supply (**)	Pa	256	211	223	146	267
Static pressure available in recovery (**)	Pa	244	203	206	134	246
Pressure drops with water battery (**)	Pa	11	19	17	25	41
Pressure drops with electric battery (**)	Pa	10	10	10	10	10
Regenerator efficiency (***)	%	51	56	53	56	54
Recovered heat capacity (***)	kW	3,2	4,7	6,6	9,8	14,9
Heat pump nominal heat capacity (***)	kW	5,3	6,7	9,5	14,1	16,6
Total heat capacity (***)	kW	8,5	11,4	16,1	23,9	31,5
Recovered cooling capacity (****)	kW	0,9	1,3	2	2,9	4,4
Heat pump nominal cooling capacity (****)	kW	4,6	6,4	8,3	14	15,3
Total cooling capacity (****)	kW	5,5	7,7	10,3	16,9	19,7
Water heating battery heat capacity (70/60°C) (*****)	kW	4,5	5,5	8,4	11	15,6
Water heating battery heat capacity (45/40°C) (*****)	kW	1,4	1,7	2,7	3,5	5
Electric heating battery heat capacity (400V)	kW	3	4,5	6	9	12
Capacity absorbed by fans	kW	0,75	0,75	1,5	1,5	2,5
Number of fans	n.	2	2	2	2	2
Total capacity absorbed in cooling (****) / in heating (***)	kW	3/1,8	3,6/2,3	5/3,7	6,7/4,5	8,0/5
Power voltage (compressor)	V	230V	230V	400V	400V	400V

Power supply = 1~ 230V 50Hz; 3N~ 400V 50 Hz.

(*) At maximum fan speed.

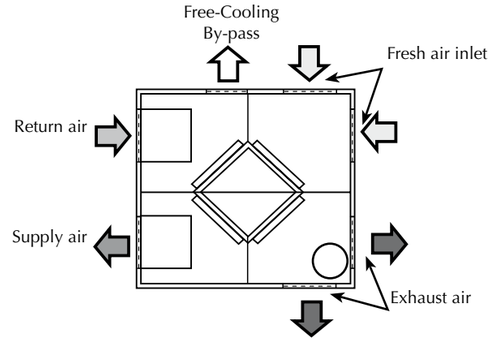
(**) At nominal air capacity.

(***) Performance referred to: recovery air capacity equal to ejected air capacity; external air input temperature -5 °C, 80% RH, room temperature 20°C, 50% RH.

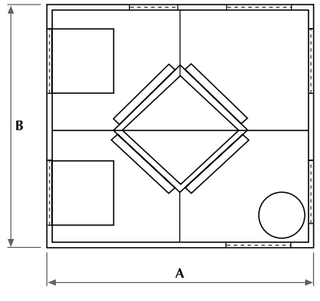
(****) Performance referred to: recovery air capacity equal to ejected air capacity; external air input temperature 34 °C, 50% RH, room temperature 26 °C, 50% RH.

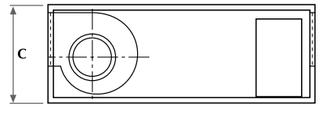
(*****) Performance referred to: air temperature supplied to water heating battery equal to air temperature outputted by condenser battery in nominal conditions.

Lay-out



Dimensions (mm)





Mod. UR		075 CF	100 CF	150 CF	210 CF	320 CF
Height	A	1500	1500	1800	1800	1800
Width	B	1300	1300	1500	1500	1600
Depth	C	450	450	550	550	600
Weight	kg	215	220	305	320	400

Cod.: SURCFUY.04 / 0912

NCS

Air handling units with 25 mm thick panels.
Air flow rate from 1,000 to 45,000 m3/h



Characteristics

The NCS series of air handling units is a direct descendant of the NCD series. They both offer high quality components, versatile configurations, and a complete array of available sections and accessories.
The NCS series of air handling units is notable due to its use of 25 mm thick sandwich panels, which are attached to the
frame using frame panels which do not require screws. This system allows for uniform pressure on the case, minimizing leakage.
Thanks to a modular construction and the wide range of accessories, the designer is always able to select the most appropriate unit for their precise installation type.

Main Characteristics
• Structure:
Aluminium sections with rounded edges and reinforced nylon corners.
The case is made of sealing sandwich panels, 25 mm thick, attached to the frame using an exclusive frame panel which does not require any screws.

• Aluminium dampers
with aerofoil blades. Precise construction guarantees low leakage.

• Filter systems
All types of filter systems generally used in air handling units are available, all of which guarantee conformance with the current regulations regarding environmental air quality.

• Heat exchange coils
can be removed on slides and are provided in various materials based on usage and heating system.

• Humidification systems
Chosen based on the specific intended use for the unit, in conformance with the system chosen.

• Forward or backward curved fan blades.
The choice is made based on the requested aeraulic performance, and with attention to output and noise level.

• Silencers
Available in various lengths. Constructed of rock wool, surfaces in contact with the air are protected using polyester film and held inside a micro-perforated galvanized steel sheet.

•Various types of heat recovery systems
Make it possible to respect current energy saving regulations.

Accessories

A vast array of accessories, which can be chosen using our selection programme. The programme also makes it possible to quickly design a unit in real-time.

Technical information

NCS	air flow rate (m3/h)			
	2	**2,5**	**3**	**3,5**
1	907	1134	1361	1588
2	1566	1958	2349	2741
3	1912	2390	2867	3345
4	2506	3132	3758	4385
5	3059	3823	4588	5352
6	3445	4307	5168	6029
7	4206	5257	6308	7360
8	4966	6207	7449	8690
9	6415	8019	9623	11227
10	7582	9477	11372	13268
11	9238	11548	13857	16167
12	11370	14213	17055	19898
13	13582	16978	20373	23769
14	17055	21319	25583	29847
15	20609	25761	30913	36065
16	24618	30772	36926	43081
17	29711	37139	44566	51994

Vel.: Face velocity on the battery pack heat exchange

Dimensional data (mm)

NCS	External dimensions		Internal dimensions	
	Width	**Height***	**Width**	**Height**
1	684	521.5	613	409.5
2	1009	521.5	938	409.5
3	1171.5	521.5	1100.5	409.5
4	1009	684	938	572
5	1171.5	684	1100.5	572
6	1009	846.5	938	734.5
7	1171.5	846.5	1100.5	734.5
8	1334	846.5	1263	734.5
9	1659	846.5	1588	734.5
10	1659	1009	1588	897
11	1984	1009	1913	897
12	1984	1171.5	1913	1059.5
13	2309	1171.5	2238	1059.5
14	1984	1659	1913	1547
15	1984	1984	1913	1872
16	2309	1984	2238	1872
17	2309	2309	2238	2197

*declared external height does not include the base (120 mm)

Cod.: SNCSUY.00 / 0912

NCT H

Air handling units
With modular sections



Features

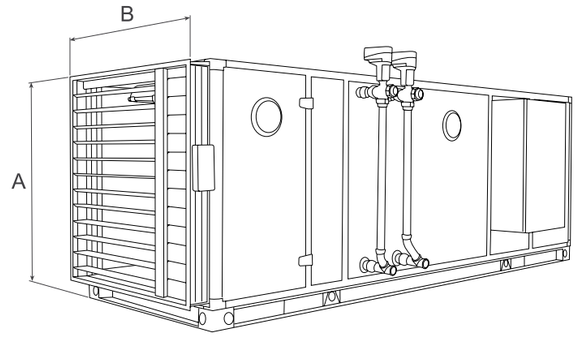
- **Fan sections, exchange coils, filters and external air intakes:**
- plug fans for all sizes, in stainless steel or treated material, equipped with guides and supports reduced to a minimum;
- coils and heat recovery units in Cu/Cu, waterproof Cu/Cu, stainless steel/Cu or stainless steel/stainless steel;
- class F7 filters positioned upstream and on the pick-up points of the unit, class F8/F9 downstream (possibility to equip the unit with filters with a germicidal capacity);
- external air intakes scaled for speeds of less than 2m/s, and equipped with suitable protective means.
- **Humidification, silencers, drop eliminators:**
- steam humidification, either direct or with a producer operating with immersed electrodes;
- suitable distances are maintained between the humidification and the subsequent component;
- drop eliminators subjected to antibacterial treatment or made of stainless steel.
- **Performance and safety characteristics:**
- the unit performance levels are certified according to the Eurovent programme;
- the unit is supplied complete with all the electrical and electronic components for correct operation, and therefore carries the EC mark showing that it satisfies the safety requisites of the relevant directives.
- **Inspection and cleaning:**
- access openings, drainage panels and adequate lighting in every section;
- curved inner corners to avoid the accumulation of dirt;
- edges and slits have been avoided and all permanent joints are sealed;
- the drainage outlets are fitted with easy-to-inspect drain-taps.
- **Panelling and inner surface:**
- the precise frame-panelling coupling allows you to reach casing air seepage values that fall within class B of Standard UNI EN 1886, with the certification of the TÜV laboratories;
- the materials used offer a good resistance to cracking, splintering, flaking and abrasion, they can be washed and disinfected, and they do not favour the proliferation of biological agents or agents that encourage bioburden reduction (antibacterial treatment with certified bioburden reduction).

Technical data

	Air flow rate m3/h	Coil section m2
NCT H 2	1800	0,202
NCT H 3	2520	0,278
NCT H 4	3130	0,348
NCT H 5	3820	0,425
NCT H 6	4500	0,502
NCT H 7	5080	0,566
NCT H 8	6230	0,69
NCT H 9	7340	0,815
NCT H 10	9470	1,053
NCT H 11	10730	1,191
NCT H 12	13860	1,539
NCT H 13	17500	1,944
NCT H 14	21300	2,369
NCT H 15	25780	2,862
NCT H 16	30780	3,419

The performance levels refer to an air speed through the coils equal to 2.5 m/s.

Dimensions (mm)



	Section A	Section B
NCT H 2	805	735
NCT H 3	805	895
NCT H 4	805	1055
NCT H 5	805	1215
NCT H 6	805	1375
NCT H 7	1125	1055
NCT H 8	1125	1215
NCT H 9	1125	1375
NCT H 10	1125	1695
NCT H 11	1445	1375
NCT H 12	1445	1695
NCT H 13	1765	1695
NCT H 14	1765	2015
NCT H 15	2085	2015
NCT H 16	2085	2335

Cod.: SNCTHUI.01 / 1009

NCD

Air handling units



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;

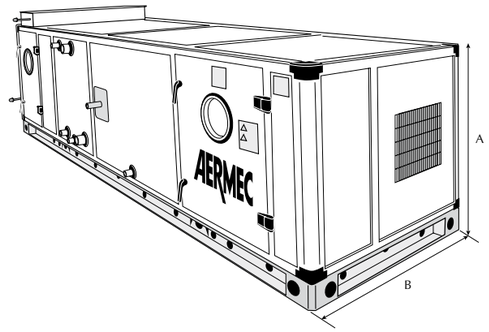
Accessories common to several sections:
- Spot light with window with 24V bulb (the installer must envision the 24V power supply);
- manometer with dial;
- pressure switch;
- instruments-probes holder GJ 1/4" double sleeve;
- floor reinforced with non-slip sheet steel.

Technical data

	Air flow rate m³/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.

Dimensional data (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.01 / 0912

AERMEC

02. UNITS FOR SYSTEMS

Aermec engineering design skills can be seen at their best
in the sector of air handling units for centralised systems.
Aermec offers a complete range of water chillers and heat pumps,
from domestic units to large scale equipment for the tertiary sector.
The cooling capacity range is vast: from 3 Kw to 1600 kW,
and configurations are endless, using screw or scroll compressors.
Care taken in material selection and all assembly parts together
with a vast selection of accessories complete the product range
for this sector making Aermec units for centralised systems
a real must in the world of climatisation throughout Italy and Europe.

ANL

R410A

Air cooled water chillers, heat pumps and condensing units with axial fans
Cooling capacity from 5.7 to 43.0 kW
Heating capacity from 6.2 to 46.0 kW



- **STANDARD VERSION**
- **OPTION FOR WATER PUMP AND BUFFER TANK**
- **OPTION FOR HIGH HEAD PUMP**
- **ABILITY TO PRODUCE DOMESTIC HOT WATER (D.H.W.)**

Features

- Available in 11 sizes
- Cooling only, heat pump, and condensing unit models
- Available in 5 versions:
  ANL: Standard Version
  ANL P: Version fitted with water pump, expansion vessel, water filter
  ANL N: Version with high head pump
  ANL A: Version fitted with water pump, expansion vessel, water filter, and buffer tank
  ANL Q: Version with high head pump and buffer tank
  ANL C: Condensing unit (without evaporator)
- All versions, except the condensing unit (C) and the desuperheater option (D), can be requested to produce low leaving liquid temperature from 4 °C down to -6 °C.
- High efficiency scroll compressors with low power input
- Differential pressure switch / flow switch as standard supply
- Electronic controller (Modu_control)
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Metallic protective cabinet with anti-corrosion polyester paint

Accessories

- **BDX**: Condensate drip tray for outdoor unit
- **DCPX**: Low temperature device for correct cooling mode operation with ambient temperatures from less than 20 °C down to - 10 °C.
- **DRE**: Electronic soft starter device reducing starting current by about 30%. **Only available for three-phase models. Factory fitted only.**
- **KR**: Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA. Factory fitted only.
- **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.
- **MODU-485A**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **RA**: Anti-freeze electric heater for the buffer tank. Factory fitted only.
- **VT**: Anti-vibration mounts.
- **Compatibility with the VMF system**
  VMF-CRP
  VMF-VOC
  VMF-ACS
  VMF-E5B|N
  For further system information please refer to the specific documentation.

Accessory compatibility												
ANL	**vers**	**20**	**25**	**30**	**40**	**50**	**70**	**80**	**90**	**100**	**150**	**200**
PR3	**(°) - H - C**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
MODU-485A	**All**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	**All**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
DRE [1]	**(°) - H - C**	-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
DCPX	**(°) - C**	50	50	50	50	50	50	50	50	52	52	52
	H	51	51	51	51	51	51	51	51	53	53	53
VT	**(°) - H - HP - C**	9	9	9	9	9	9	9	9	15	15	15
	A	9	9	9	9	15	15	15	15	15	15	15
RA [3]	**A**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
BDX	**(°) / P**	5	5	5	5	5	5	5	5	-	-	-
	A	5	5	5	5	6	6	6	6	-	-	-
KR [2 3]	**(°) / P**	2	2	2	2	2	2	2	2	2	2	2
	A	-	-	-	-	2	2	2	2	2	2	2

1 **Only available for** 400V/3N power supply. Factory fitted only.

2 Not available for sizes ANL 020…040°A | HA.

3 Factory fitted only.

x2 Quantity to be ordered

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

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13
Code	Size	Model	Version	Heat recovery	Coil fins	Field of use	Evaporator	Power supply

Code:
ANL
Size :
020, 025, 030, 041, 050, 070, 080, 090, 100, 150, 200
Model:
° - Cooling only
H - Heat pump
Version:
° - Standard
P - With pump
N - With high pump (from sizes 100 to 200)
A - With pump and buffer tank
Q - With buffer tank and high head pump (from sizes 050 to 200)
Heat recovery:
° - Without heat recovery
D - With desuperheater (partial heat recovery)*
Coil fins:
° - Aluminium
R - Copper
S - Tinned copper
V - Epoxy coated aluminium
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
Evaporator :
° - Standard
C - Condensing unit (without evaporator)
Power supply:
M - 230V ~ 50Hz (only for sizes 020 to 040)
° - 400V 3N~ 50Hz

Attention:
– Z-Y = these options apply exclusively to cooling only models
– standard options are shown by symbol °
– heat pump model not available as condensing unit version (field 7: option H; field 12: option C)
– single phase power supply (field 13: option M) is available only for sizes 020 - 025 - 030 - 040
– * The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 100 to 200 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.

Configuration code example: ANL090HAR
This is a an ANL unit, size 090, heat pump model, with buffer tank and pump, with copper condenser coil, with evaporator, and with electrical panel for compressors with motors 3N~ 400V 50Hz. Note that as each option is precisely identified, it is not necessary to specify standard options (indicated by °) in the configuration code.

Technical Data

Model				020°	025°	030°	040°	050°	070°	080°	090°	100°	150°	200°
Cooling capacity		**All**	kW	5,7	6,2	7,5	9,6	13,4	16,5	20,5	22,3	26,6	33,0	43,0
Total input power		**°**	kW	1,84	2,00	2,46	3,25	4,03	4,88	6,33	6,63	8.40	10.00	13.70
		P|A	kW	1,99	2,15	2,61	3,4	4,30	5,15	6,60	6,90	9.20	11.50	15.20
		N|Q	kW	-	-	-	-	4,48	5,33	6,78	7,08	9.40	11.30	15.00
Total input current	230V/1	**°**	A	9,4	10	13	16,3	-	-	-	-	-	-	-
	400V/3N	**°**	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	16,7	18,8	25,7
	230V/1	**P|A**	A	10,40	11,00	14,00	17,30	-	-	-	-	-	-	-
	400V/3N	**P|A**	A	4,70	5,20	5,70	7,20	10.7	11.7	14.2	14.8	17.9	20.8	27.7
	400V/3N	**N|Q**	A	-	-	-	-	11,40	12,40	14,90	15,50	18.7	21.4	28.3
Water flow rate		**All**	l/h	980	1070	1290	1650	2310	2840	3530	3840	4580	5680	7400
Pressure drop		**°**	kPa	20	20	20	21	21	21	26	25	43	39	32
Available head		**P|A**	kPa	60	60	59	55	82	80	69	66	84	115	90
		N|Q	kPa	-	-	-	-	160	158	144	140	140	185	158
EER		**°**	W/W	3,10	3,10	3,05	2,95	3,33	3,38	3,24	3,36	3,17	3,30	3,14
		P|A	W/W	2,86	2,88	2,87	2,82	3,12	3,20	3,11	3,23	2,89	2,87	2,83
		N|Q	W/W	-	-	-	-	2,99	3,10	3,02	3,15	2,83	2,92	2,87
ESEER				3,72	3,72	3,66	3,54	3,99	4,06	3,88	4,03	4,14	4,25	4,12

				020H	025H	030H	040H	050H	070H	080H	090H	100H	150H	200H
Heating capacity		**All**	kW	6,2	7,0	8,4	10,6	14	17,3	22,2	24,2	29,0	35,0	46,0
Total input power		**H**	kW	1,91	2,12	2,62	3,18	4,3	4,9	6,3	6,85	8,6	10,1	13,3
		P|A	kW	2,06	2,27	2,77	3,33	4,57	5,17	6,57	7,12	9.2	11.1	14.3
		N|Q	kW	-	-	-	-	4,75	5,35	6,75	7,3	9.6	11.4	14.6
Total input current	230V/1	**H**	A	10,4	11	14	17,3	-	-	-	-	-	-	-
	400V/3N	**H**	A	3,8	4,4	5,4	6,8	9,5	10,3	12,9	13,8	17	19	25
	230V/1	**P|A**	A	10,4	12,3	14	19,3	-	-	-	-	-	-	-
	400V/3N	**P|A**	A	4,8	5,4	6,4	7,8	11,5	12,3	14,9	15,8	18,2	21,0	27,0
	400V/3N	**N|Q**	A	-	-	-	-	12,2	13	15,6	16,5	19,0	21,6	27,6
COP		**H**	W/W	3,25	3,30	3,21	3,33	3,26	3,53	3,52	3,53	3,37	3,47	3,46
		P|A	W/W	3,01	3,08	3,03	3,18	3,06	3,35	3,38	3,40	3,15	3,15	3,22
		N|Q	W/W	-	-	-	-	2,95	3,23	3,29	3,32	3,02	3,07	3,15
Water flow rate		**All**	l/h	1070	1200	1450	1820	2410	2980	3820	4160	4990	6020	7910
Pressure drop		**H**	kPa	32	35	35	30	30	30	38	53	52	44	37
Available head		**P|A**	kPa	60	60	59	55	82	80	69	66	84	115	90
		N|Q	kPa	-	-	-	-	160	158	144	140	142	187	162
Cooling capacity		**All**	kW	5,7	6,2	7,5	9,6	13,4	16,5	20,5	22,3	26,0	32,0	42,0
Total input power		**H**	kW	1,84	2	2,46	3,25	4,03	4,88	6,33	6,63	8,6	10,2	13,9
		P|A	kW	1,99	2,15	2,61	3,4	4,3	5,15	6,6	6,9	9.2	11.2	14.9
		N|Q	kW	-	-	-	-	4,48	5,33	6,78	7,08	9.6	11.5	15.2
Total input current	230V/1	**H**	A	9,4	10	13	16,3	-	-	-	-	-	-	-
	400V/3N	**H**	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	17	19,2	26,2
	230V/1	**P|A**	A	9,4	10	13	16,3	-	-	-	-	-	-	-
	400V/3N	**P|A**	A	4,7	5,2	5,7	7,2	10,7	11,7	14,2	14,8	18,2	21,2	28,2
	400V/3N	**N|Q**	A	-	-	-	-	11,4	12,4	14,9	15,5	19	21,8	28,8
EER		**H**	W/W	3,10	3,10	3,05	2,95	3,33	3,38	3,24	3,36	3,02	3,14	3,02
		P|A	W/W	2,86	2,88	2,87	2,82	3,12	3,20	3,11	3,23	2,83	2,86	2,82
		N|Q	W/W	-	-	-	-	2,99	3,10	3,02	3,15	2,71	2,78	2,76
Water flow rate		**All**	l/h	980	1070	1290	1650	2310	2840	3530	3840	4470	5500	7220
Pressure drop		**H**	kPa	29	30	30	27	30	30	36	50	41	37	31
Available head		**P|A**	kPa	60	60	59	55	82	80	69	66	84	115	90
		N|Q	kPa	-	-	-	-	160	158	144	140	140	185	158

				020C	025C	030C	040C	050C	070C	080C	090C	100C	150C	200C
Cooling capacity		**All**	kW	5,7	6,0	7,5	9,6	13,7	16,8	20,8	22,5	26,9	33,4	43,7
Total input power		**°**	kW	1,85	2,05	2,5	3,3	4,1	5	6,5	6,8	8,6	10,2	14,1
Total input current	230V/1	**°**	A	9,50	10,00	13,00	16,30	-	-	-	-	-	-	-
	400V/3N	**°**	A	3,70	4,20	4,70	6,30	8,90	9,90	12,40	13,10	17,10	19,30	26,40
EER		**°**	W/W	3,08	2,93	3,00	2,91	3,34	3,36	3,20	3,31	3,13	3,27	3,10
Connections														
Line gas			Ø	15,88	15,88	15,88	15,88	22	22	22	28	28	28	35
Line liquid			Ø	9,52	9,52	12,7	12,7	15,88	15,88	15,88	15,88	15,88	15,88	15,88

COOLING

Evaporator water inlet	12°C
Evaporator water outlet	7°C
External air temperature	35 °C

HEATING

Condenser water inlet	40°C
Condenser water outlet	45°C
External air temperature	7 °C db / 6 °C wb

COOLING version C

Evaporating temperature	5°C
External air temperature	35 °C

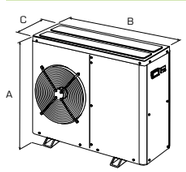
Technical Data

DATA FOR ALL VERSIONS					020	025	030	040	050	070	080	090	100	150	200
Electrical data															
Maximum current (FLA)	230V/1	**°**	A		16,50	16,50	19,70	23,70	-	-	-	-	-	-	-
	400V/3N	**°**	A		6	6	6,7	8,7	11,3	13,5	16,3	17,3	22	26	34
	230V/1	**P|A**	A		17,5	17,5	20,7	24,7	-	-	-	-	-	-	-
	400V/3N	**P|A**	A		7,00	7,00	7,70	9,70	13,30	15,50	18,30	19,30	23,4	28,8	36,8
	400V/3N	**N|Q**	A		-	-	-	-	14,0	16,2	19,0	20,0	24.8	29.5	37.5
Starting current (LRA)	230V/1	**°**	A		59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
	400V/3N	**°**	A		26,5	32,5	35,7	48,7	65,3	75,3	102,3	96,3	76	87	117
	230V/1	**P|A**	A		60,5	63,5	84,7	99,7	-	-	-	-	-	-	-
	400V/3N	**P|A**	A		27,5	33,5	36,7	49,7	67,3	77,3	104,3	98,3	77.4	89.8	119.8
	400V/3N	**N|Q**	A		-	-	-	-	68	78	105	99	78.8	90.5	120.5
Protection rating										IP24					
Compressors										**scroll**					
Number / circuits			n°/n°		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Capacity control			%					0-100						0-50-100	
Refrigerant			type							R410A					
Heat exchanger system side															
Number			n°		1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	IN|OUT		Ø		1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼
Buffer tank															
Capacity			l		25	25	35	35	75	75	75	75	100	100	100
Fans															
Number			n°		1	1	1	1	2	2	2	2	2	2	2
Air flow rate cooling mode			m^3/h		2500	2500	3500	3500	7200	7200	7300	7200	13200	12000	12000
Sound data															
Sound pressure			dB(A)		30	30	37	37	38	38	38	37	44	45	46
Sound power			dB(A)		61	61	68	68	69	69	69	68	76	77	78

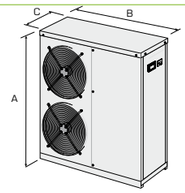
Sound power
Aermec determines sound power values on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

Sound pressure
Sound pressure in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from the external surface of unit, in accordance with ISO 3744.

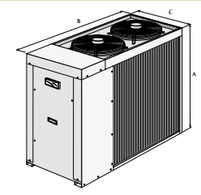
Dimensions (mm)



020 - 025 - 030 - 040



050 - 070 - 080 - 090



100 - 150 - 200

DIMENSIONS - WEIGHT			020	025	030	040	050	070	080	090	100	150	200
Height	**°|P|C**	mm	868	868	1000	1000	1252	1252	1252	1252			
	A	mm	868	868	1015	1015	1281	1281	1281	1281	1345	1345	1345
	Q	mm	-	-	-	-	1281	1281	1281	1281			
Width	**°|P|C**	mm	900	900	900	900	1124	1124	1124	1124			
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	750	750	750
	Q	mm	-	-	-	-	1165	1165	1165	1165			
Depth (without feet / with feet)	**°|P|C**	mm	310/354	310/354	310/354	310/354	384/428	384/428	384/428	384/428			
	A	mm	384/428	384/428	384/428	384/428	550	550	550	550	1750	1750	1750
	Q	mm	-	-	-	-	550	550	550	550			
Cooling only model													
Weight	**°**	kg	75	75	86	86	120	120	120	156	270	293	329
	P	kg	77	77	91	91	127	127	163	163	288	314	350
	A	kg	99	99	103	103	147	147	147	183			
	Q	kg	-	-	-	-	151	151	187	187	338	364	400
	C	kg	70	70	78	78	110	110	141	141			
Heat pump model													
Weight	**°**	kg	75	75	86	86	120	120	120	156	295	322	358
	P	kg	77	77	91	91	127	127	163	163	313	343	379
	A	kg	99	99	103	103	147	147	147	183	363	393	429
	Q	kg	-	-	-	-	151	151	187	187	423	447	457

Cod.: SANLUY.10 / 1201

ANLI

Air cooled chiller and heat pump with axial fans

Heating capacity (UNDER FLOOR HEATING) 6.40 - 33.75 kW
Heating capacity (FAN COILS) 6.10 - 31.70 kW
Cooling capacity 5.70 - 28.80 kW

R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec
participates at EUROVENT program: LCP/A/P/R.
The involved products can be found in the website
www .eurovent-certification. com



• INVERTER COMPRESSOR
• STANDARD VERSION
• VERSION WITH ON/OFF PUMP OR INVERTER

Characteristics

- Refrigerant R410A
- High efficiency at partial load
- 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
- Extended operating limits in heat pump mode

ANLI 020 - 025 - 070 - 100:

1. Maximum leaving water temperature 55 °C
2. Maximum external air temperature 42 °C (with DCPX fan speed controller accessory)
3. Minimum external air temperature -15 °C

ANLI 021 - 026 - 040 - 045 - 071 - 075 - 080:

1. Maximum leaving water temperature 60 °C
2. Maximum external air temperature 42 °C (with DCPX fan speed controller accessory)
3. Minimum external air temperature -20 °C

- Reduced starting currents
- Dual-flow electronic expansion valve with auto-adaptive algorithm controlling superheat, suitable for leaving liquid temperatures:

1. down to -6 °C for **ANLI 020 - 025 - 070 - 100**
2. down to -8 °C for **ANLI 021 - 026 - 040 - 045 - 071 - 075 - 080**

- 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
- Integral pump:
- ANLI: standard without pump
- ANLI P: on/off pump
- ANLI X: 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 or flow switch, depending on the model, fitted on all units.
- Expansion tank and pressure safety valve (only units with pump)
- Available in heat pump version only
- Fitted with EMC filters
- 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
- Load limiting safety control by reducing compressor speed
- High and low pressure transducers
- Automatic reset of alarms before tripping
- Alarms history

Accessories

- **BDX5**: Condensate drip tray for outdoor unit.
- **BDX8/9**: Condensate drip tray with integrated electric resistance, managed by external air probe control.
- **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. **Accessory mandatory for the production of domestic hot water (DHW) in summer mode (only for some sizes, refer to the technical manual).**
- **KR**: Electric anti-freeze resistance for plate heat exchanger. **Standard for sizes from 021 to 080 Can only be applied in the factory.**
- **KRB:** Electric anti-freeze resistance kit for base; prevents the formation of ice on the base. **Can only be applied in the factory.**
- **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.
- **MODU-485A**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **VT**: Anti-vibration mounts.

COMPATIBILITY with VMF SYSTEM

- **VMF-CRP**
- **VMF-VOC**
- **VMF-DHW**
- **VMF-E5B|N**

For further information on system, refer to specific documentation.

Available accessories

ANLI	vers.	20	25	70	100
PR3		✔	✔	✔	✔
MODU-485A		✔	✔	✔	✔
AERWEB300		✔	✔	✔	✔
DCPX		51	51	51	53
VT		9	9	9	15
BDX	(°) / P / X	5	5	5	-
KR [1]	(°) / P / X	2	2	2	2
BSK4KW230M	230V/1	✔	✔	✔	-
BSK6KW230M	230V/1	✔	✔	✔	-
BSK6KW400VT	400V/3N	-	-	-	✔
BSK9KW400VT	400V/3N	-	-	-	✔

Available accessories

ANLI	vers.	21	26	40	45	71	75	80
PR3		✔	✔	✔	✔	✔	✔	✔
MODU-485A		✔	✔	✔	✔	✔	✔	✔
AERWEB300		✔	✔	✔	✔	✔	✔	✔
DCPX		51	51	51	51	51	51	51
VT		9	9	9	9	9	9	9
BDX [1]	(°) / P / X	8	8	9	9	9	9	9
KRB [1]	(°) / P / X	1	1	2	2	2	2	2
BSK4KW230M	230V/1	✔	✔	✔	✔	-	-	-
BSK6KW230M	230V/1	✔	✔	✔	✔	-	-	-
BSK6KW400VT	400V/3N	-	-	-	-	✔	✔	✔
BSK9KW400VT	400V/3N	-	-	-	-	✔	✔	✔

1 Factory fitted only.

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.

Configuration fields:

1 2 3 4 — Code
5 6 7 — Size
8 — Model
9 — Version
10 — Heat recovery
11 — Coil
12 — Field of use
13 — Evaporator
14 — Power supply

Code:
ANLI
Size:
020 - 025 - 070 - 100
021 - 026 - 040 - 045 - 071 - 075 - 080
Model:
H - Heat Pump
Version:
° - Standard (without pump)
P - With ON/OFF pump
X - With INVERTER pump
Heat recovery:
° - Without heat recovery
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Field of use:
° - Standard for leaving liquid temperature down to -6 °C for sizes **020 - 025 - 070 - 100**
- Standard for leaving liquid temperature down to -8 °C for sizes **021 - 026 - 040 - 045 - 071 - 075 - 080**
Evaporator:
° - Standard PED regulations
Power supply:
M - 230V/1/50Hz sizes 020 - 025 - 070 | 021- 026 - 040 - 045
T - 400V/3N/50Hz sizes 100 | 071 - 075 - 080

Attention:
– Single-phase power supply (field 14: option M) is available only for sizes 020 - 025 - 070 | 021- 026 - 040 - 045.

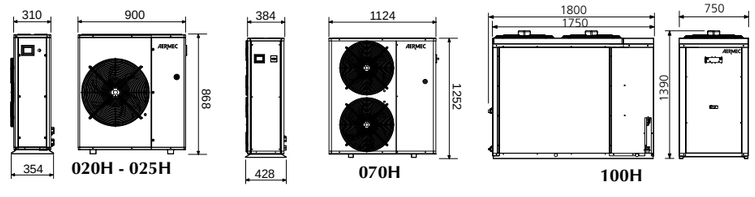
Example of a configuration code: **ANLI100H°°°°°T**
This is an ANLI unit, size 100, heat pump model, standard (without pump), without heat recovery, aluminium condenser coil, standard field of use, standard evaporator, and electrical panel for compressors with 400V/3N/50Hz motors.

Technical Data

ANLI			020H	025H	070H		100H	
						F1	F2	F3
Heating mode: water 40/45 °C - air 7 °C db / 6 °C wb (fan coils)								
Heating capacity	**H**	kW	6.18	7.31	14.04	31.7	24.95	20.08
	HP|HX	kW	6.1	7.21	13.81	31.0	24.3	19.54
Input power	**H**	kW	2.08	2.33	4.44	11.4	8.34	6.36
	HP|HX	kW	2.1	2.35	4.48	11.45	8.35	6.38
Total input current	**H**	A	10.1	11.3	19.1	15.7	11.5	8.8
	HP|HX	A	10.6|10.6	11.8	20.5|19.8	17.1	12.9	10.2
COP	**H**	W/W	2.97	3.14	3.16	2.78	2.99	3.16
	HP|HX	W/W	2.90	3.07	3.08	2.71	2.91	3.06
Water flow rate	**H**	l/h	1063	1257	2415	5452	4291	3454
	HP|HX	l/h	1049	1241	2376	5332	4179	3362
Pressure drops	**H**	kPa	25	29	17	59	36	23
Heating mode: water 30/35°C - air 7°C d.b./6°C w.b. (floor heating)								
Heating capacity	**H**	kW	6.48	7.66	14.54	33.75	25.34	20.87
	HP|HX		6.40	7.59	14.31	33.01	24.65	20.32
Input power	H	kW	1.72	1.93	3.74	9.85	7.05	5.44
	HP|HX	kW	1.74	1.94	3.78	9.86	7.06	5.46
Total input current	**H**	A	8.4	9.4	16	13.4	9.6	7.4
	HP|HX	A	8.9|8.9	9.9	17.4|16.7	14.8	11	8.8
COP	**H**	W/W	3.77	3.97	3.89	3.43	3.59	3.84
	HP|HX	W/W	3.68	3.91	3.79	3.35	3.49	3.72
Water flow rate	**H**	l/h	1114	1318	2502	5805	4359	3590
	HP|HX	l/h	1100	1306	2462	5678	4239	3494
Pressure drops	**H**	kPa	28	32	19	66	37	28
Cooling mode water 12/7°C - external air 35°C								
Cooling capacity	**H**	kW	5.88	6.42	14.56	28.77	23.95	20.03
	HP|HX		5.95	6.5	14.79	29.43	24.53	20.23
Input power	**H**	kW	2.12	2.42	4.44	11.73	8.14	6
	HP|HX	kW	2.14	2.44	4.48	11.82	8.31	5.8
Total input current	**H**	A	10.3	10.9	18.9	16.3	11.3	8.3
	HP|HX	A	10.8|10.8	11.4	20.3|19.6	17.7	12.7	9.7
EER	**H**	W/W	2.77	2.65	3.28	2.45	2.94	3.34
	HP|HX	W/W	2.78	2.66	3.30	2.49	2.95	3.49
ESEER	**H**		3.58	3.54	4.39	4.11	4.11	4.11
	HP		3.36	3.60	4.45	4.40	4.40	4.40
	HX		3.65	3.91	4.73	4.40	4.40	4.40
Water flow rate	**H**	l/h	1011	1104	2504	4948	4120	3445
	HP|HX	l/h	1023	1117	2544	5061	4219	3480
Pressure drops	**H**	kPa	23	29	19	50	30	24
Available head	**HP|HX**	kPa	57-57	52-52	82-72		92	
COMMON DATA FOR ALL VERSIONS								
Electrical data								
Maximum current (FLA)	**H**	A	14.0	14.0	24.5	21.0	21.0	21.0
	HP|HX	A	14.5-14.5	14.5	25.9-25.2	22.4	22.4	22.4
Starting current (LRA)	**H**	A	20.0	20.0	25.0	30.0	30.0	30.0
	HP|HX	A	20.5-20.5	20.5	26.4-25.7	31.4-30.7	31.4-30.7	31.4-30.7
Protection rating					IP24			
Compressor					SCROLL			
Quantity/circuit		n°	1|1	1|1	1|1	1|1	1|1	1|1
Partializations		%			35-100			
System side heat exchanger					PLATES			
Quantity		n°	1	1	1	1	1	1
Hydraulic connections		ø	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4
Fans					AXIAL			
Quantity		n°	1	1	2		2	
Air flow rate in cooling mode		m^3/h	2500	3500	7200		13200	
Sound data								
Sound pressure		dB(A)	29.0	37.0	37.0		44.0	
Sound power		dB(A)	61.0	68.0	69.0		76.0	

DATA DECLARED IN ACCORDANCE WITH THE STANDARD UNI EN 14511-2 2011
SINCE FOR THE ANLI 100 MODEL THE COMPRESSOR CONTROL RANGE IS WIDER THAN PREVIOUS MODELS, THE FOLLOWING DATA IS PROVIDED IN THE DECLARATION OF PERFORMANCE:
FREQUENCY F1 – MAXIMUM PERFORMANCE
FREQUENCY F2 – PERFORMANCE COMPLIANT WITH FRENCH STANDARD NF 414
FREQUENCY F3 – INTERMEDIATE PERFORMANCE
Sound power: Aermec determines the value based on the measurements made in accordance with ISO 9614 - 2, as required by Eurovent.
Sound Pressure: measured in free field conditions at a distance of 10 m and directivity factor = 2. In accordance with the ISO 3744.

Dimensional data (mm)

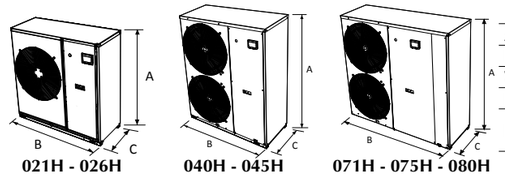


ANLI			020H	025H	070H	100H
Empty weight	**H**	kg	70	70	134	293
	HP|HX	kg	72	72	141	308

Technical data

ANLI			021H	026H	040H	045H	071H	075H	080H
Heating mode: water 40/45°C - air 7°C d.b./6°C w.b. (fan coils)									
Heating capacity	**H**	kW	6.23	7.79	9.91	12.75	15.16	17.60	20.12
	HP	kW	6.17	7.70	9.81	12.60	15.02	17.42	19.92
	HX	kW	6.17	7.71	9.82	12.61	15.03	17.45	19.97
Input power	**H**	kW	1.93	2.45	3.17	4.22	4.85	6.07	7.27
	HP	kW	1.95	2.45	3.15	4.16	4.87	6.05	7.24
	HX	kW	1.89	2.39	3.09	4.10	4.69	5.90	7.10
COP	**H**	W/W	3.23	3.17	3.13	3.02	3.12	2.90	2.77
	HP	W/W	3.16	3.15	3.12	3.03	3.08	2.88	2.75
	HX	W/W	3.27	3.23	3.18	3.08	3.20	2.96	2.81
Water flow rate	**ALL**	l/h	1066	1331	1697	2180	2594	3009	3436
Pressure drop	**H**	kPa	11	18	12	20	18	24	32
Heating mode: water 30/35°C - air 7°C d.b./6°C w.b. (floor heating)									
Heating capacity	**H**	kW	6.58	8.17	10.49	12.91	16.18	18.56	20.98
	HP	kW	6.52	8.08	10.39	12.78	16.04	18.40	20.81
	HX	kW	6.49	8.05	10.35	12.73	15.95	18.32	20.73
Input power	**H**	kW	1.63	2.07	2.68	3.54	4.09	5.09	6.11
	HP	kW	1.64	2.06	2.65	3.50	4.10	5.08	6.10
	HX	kW	1.58	2.00	2.58	3.42	3.91	4.91	5.93
Total input current	**H**	A	6.7	8.6	11.4	15.1	6.1	7.6	9.0
	HP	A	7.5	9.4	12.2	15.9	7.7	9.2	10.7
	HX	A	7.2	9.1	11.9	15.6	6.8	8.3	9.7
COP	**H**	W/W	4.04	3.94	3.92	3.64	3.96	3.65	3.44
	HP	W/W	3.97	3.91	3.92	3.65	3.91	3.62	3.41
	HX	W/W	4.11	4.03	4.01	3.72	4.08	3.73	3.50
Water flow rate	**ALL**	l/h	1126	1395	1796	2207	2768	3172	3582
Pressure drop	**H**	kPa	13	20	14	20	21	28	35
Available head	**HP**	kPa	69	61	65	56	78	69	59
	HX	kPa	61	54	59	51	70	55	37
Cooling mode water 12/7°C - external air 35°C									
Cooling capacity	**H**	kW	5.71	7.26	9.39	12.25	13.66	16.35	18.51
	HP	kW	5.76	7.34	9.49	12.39	13.79	16.52	18.70
	HX	kW	5.79	7.37	9.51	12.41	13.88	16.59	18.75
Input power	**H**	kW	1.93	2.58	3.17	4.37	4.80	6.16	7.63
	HP	kW	1.96	2.57	3.15	4.32	4.84	6.15	7.60
	HX	kW	1.90	2.51	3.09	4.26	4.66	5.99	7.45
Total input current	**H**	A	8.4	11.2	13.7	19.1	7.3	9.4	11.4
	HP	A	9.2	12.0	14.5	19.9	8.9	11.0	13.1
	HX	A	8.9	11.7	14.2	19.6	8.0	10.1	12.2
EER	**H**	W/W	2.95	2.82	2.97	2.80	2.84	2.66	2.43
	HP	W/W	2.94	2.85	3.01	2.87	2.85	2.69	2.46
	HX	W/W	3.05	2.93	3.08	2.92	2.98	2.77	2.52
ESEER	**H**		4.15	4.10	4.06	4.10	4.20	4.17	4.12
	HP		4.11	4.29	4.22	4.40	4.19	4.33	4.34
	HX		4.38	4.54	4.36	4.47	4.65	4.65	4.59
Water flow rate	**ALL**	l/h	986	1256	1622	2119	2363	2831	3207
Pressure drop	**H**	kPa	11	16	12	19	18	25	32
COMMON DATA FOR ALL VERSIONS									
Electrical data									
Maximum current (FLA)	**H**	A	12.1	14.1	20.0	23.6	12.5	13.5	15.0
Starting current (LRA)	**H**	A	8.0	8.0	10.0	10.0	15.0	15.0	15.0
Protection rating						IP24			
Compressor									
Quantity/circuit		n°	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Partializations		%	33-100	27-100	37-100	30-100	34-100	28-100	25-100
System side heat exchanger						PLATES			
Quantity		n°	1	1	1	1	1	1	1
Hydraulic connections		ø	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4
Fans						AXIAL			
Quantity			1	1	2	2	2	**2**	**2**
Air flow rate in cooling mode		m^3/h	3500	3500	8000	8000	7500	7500	7500
Sound data									
Sound pressure		dB(A)	31	32.5	35.7	36.7	36.7	38	38
Sound power		dB(A)	62	63.5	66.7	67.7	67.7	69	69

Dimensional data (mm)



ANLI				021H	026H	040H	045H	071H	075H	080H
Height		mm	all	1028	1028	1281	1281	1281	1281	1281
Width		mm	all	1000	1000	1000	1000	1150	1150	1150
Depth		mm	all	400	400	450	450	450	450	450
Empty weight	**H**	kg		118	118	138	138	174	174	174
	HP|HX	kg		123	123	143	143	184	184	184

Code: SANLIUY.05 / 1203

ANF

AIR/WATER heat pumps with axial flow fans
Avec ventilateurs axiaux et puissance (thermique)
Heating capacity (UNDERFLOOR HEATING) from 6,69 to 41,75 kW
Heating capacity (FAN COILS) from 6,65 to 41,26 kW
Cooling capacity from 5,4 to 36,7 kW

R407C



- **OPTIMISED FOR OPERATION IN HEAT PUMP MODE**
- **SINGLE AND THREE–PHASE TANDEM COMPRESSORS**
- **PRODUCTION OF HOT WATER UP TO 50°C WITH AN OUTSIDE TEMPERATURE OF –5°C**
- **FIELD OF APPLICATION FROM –15°C TO 20 °C OUTSIDE AIR TEMPERATURE (46°C WITH DCPX ACCESSORIES)**

Characteristics

- Maximum safety under all working conditions. These heat pumps can produce hot water up to 50°C. They can also operate with outdoor temperatures between -15°C and 42°C,(20 °C - 42 °C with DCPX accessoire) always ensuring continuous operation.
- Available in 10 sizes.
- Scroll compressors with high capacity and low electrical power consumption.
- Differential pressure switch supplied as standard.
- Electronic control card (modu control) with start-up timing and management of defrosting cycles.
- Electric heater for the compressor casing.
- Résistance électrique pour l'échangeur à plaques.
- High efficiency heat exchangers.
- Softstart, electronic starting current reduction device (standard for single phase versions).
- Axial flow fans for quiet operation.
- The units are characterised by reduced dimensions and are varnished with polyester powder to protect them against atmospheric agents.

Accessories

- **BDX:** Condensate drip tray for outdoor unit.
- **DRE:** Electronic starting current reduction device for three-phase versions. **Can only be applied in the factory.**
- **DCPX: Compulsory accessory on heat pumps for the production of hot sanitary water (A.C.S.).** Necessary to produce sanitary water in Summer with external temperature up to 42°C.
- **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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **VT:** Shock absorbers.

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 5 6	7	8	9	10	11
Code	Size	Model	Version	Batteries	Evaporator	Power Supply

Code:
ANF

Size:
015, 020, 025, 030, 045, 050, 085, 095, 100, 165

Model:
H - Heat pump

Version:
° - Standard

Batteries:
° - In aluminium
R - Copper
S - Tinned copper
V - In varnished aluminium

Evaporator:
° - According to PED standards

Power supply:
° - 400V 3N ~50Hz
M - 230V ~ 50Hz (only for size 015, 020, 025, 030)

Warning:
– the standard options are shown by the symbol °;

Example of commercial code: **ANF100H°R°°**
This is an ANF unit, size 100 with R407C refrigerant gas, heat pump type, standard, with condensing coils made of copper, with evaporator and with electric panel for compressors with motors 3N~ 400V 50Hz.
As you can see, 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 °).

	Accessoires disponibles									
	15	**20**	**25**	**30**	**45**	**50**	**85**	**95**	**100**	**165**
DRE 5					✔	✔	✔			
DRE 10								✔		
DRE 15									✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
BDX 5	✔	✔	✔	✔	✔	✔				
BDX 6							✔			
DCPX 51	✔	✔	✔	✔	✔	✔	✔			
DCPX53								✔	✔	✔
PR3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT 9	✔	✔	✔	✔	✔	✔				
VT 15							✔	✔	✔	✔

Technical data

Mod. ANF	Version	015H	020H	025H	030H	045H	050H	085H	095H	100H	165H
Heating capacity (kW) (1)	230V - 1	6,86	7,5	9,45	11,06	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	6,69	7,28	9,16	10,77	13,25	15,64	20	28,09	34,39	41,75
Total input power (kW) (1)	230V - 1	2,03	2,15	2,8	3,18	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	1,94	2,07	2,5	3,03	3,68	4,41	5,81	8,13	10,14	11,92
COP (1)	230V - 1	3,38	3,49	3,38	3,48	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	3,45	3,52	3,66	3,55	3,6	3,55	3,44	3,46	3,39	3,5
Total input current (A) (1)	230V - 1	11,5	11,5	15,5	16,8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	3,9	4	5,2	5,8	7,8	8,4	11,7	16,7	18,3	24,1
Water flow rate (l/h) (1)	230V - 1	1.180	1.290	1.630	1.900	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	1.150	1.250	1.580	1.850	2.260	2.690	3.440	4.830	5.910	7.180
Pressure drop (kPa) (1)	230V - 1	7	8	60	49	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	6,5	7,5	56	46,5	47	32	37	40	38	56
Heating capacity (kW) (2)	230V - 1	6,8	7,39	9,31	10,96	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	6,65	7,24	9,11	10,71	13,3	15,42	19,55	27,66	33,87	41,26
Total input power (kW) (2)	230V - 1	2,4	2,49	3,2	3,72	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	2,27	2,46	2,98	3,61	4,5	5,11	6,52	9,12	11,18	13,57
COP (2)	230V - 1	2,83	2,97	2,91	2,95	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	2,93	2,94	3,06	2,97	2,96	3,02	3	3,03	3,03	3,04
Total input current (A) (2)	230V - 1	12,7	13	17	19,3	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	4,3	4,4	5,8	6,6	8,7	9,4	12,5	18	20,1	26,3
Water flow rate (l/h) (2)	230V - 1	1.170	1.270	1.600	1.885	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	1.145	1.245	1.570	1.840	2.280	2.655	3.365	4.760	5.825	7.095
Pressure drop (kPa) (2)	230V - 1	7	8	58	48,5	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	6,5	7,5	55	46	48	31	35,5	39	37	54,9
Cooling capacity (kW) (3)	230V - 1	5,5	5,9	7,5	8,8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	5,4	6	7,4	8,8	11	12,4	15,7	26	30,3	36,7
Total input power (kW)	230V - 1	2,4	2,5	3,2	3,7	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	2,3	2,3	3,1	3,6	4,6	5,2	6,7	9,3	11,7	14,3
EER (kW/kW) (3)	230V - 1	2,26	2,37	2,38	2,37	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	2,3	2,6	2,4	2,5	2,4	2,4	2,4	2,8	2,6	2,6
Total input current (A)	230V - 1	12,7	12,1	16,7	17,8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	4,6	5,1	6,2	6,3	9,1	10	13,3	19,1	21,5	27,1
Water flow rate (l/h)	230V - 1	945	1.015	1.290	1.510	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	930	1.030	1.270	1.515	1.890	2.130	2.700	4.470	5.210	6.310
Pressure drops (kPa)	230V - 1	5	6	43	36	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	5	6	43	36	36	23	27	29	28	41
FLA (A)	230V - 1	18,7	18,2	24,5	27,5	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	7,1	8,4	9,9	12	10,6	13,2	17	22	29,5	37
LRA (A)	230V - 1	45	45	45	45	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	400V - 3	33	41	48	54	66	78	101	132	172	203
♪ Sound pressure - db(A)	Toutes	29	36	36	33	37	37	36	44	45	46
♪ Sound power - db(A)	Toutes	61	68	68	65	69	69	68	76	77	78
Air flow rate (m3/h)	Toutes	2.500	3.300	3.450	5.300	7.000	6.700	6.450	13.450	12.400	12.000
Hydraulic couplings	(IN)	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″
	(OUT)	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″	M1″

Data stated according to EN14511:2004

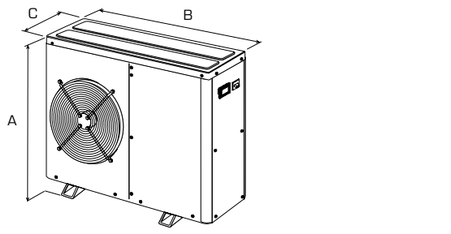
HEAT MODE (1)
(UNDERFLOOR HEATING)
- température de l'eau en sortie 35 °C;
- température de l'air extérieur 7° B.S. / 6 °C B.U.;
- Δt = 5 °C.

HEAT MODE (2)
(FAN COILS)
- température de l'eau en sortie 45 °C;
- température de l'air extérieur 7° B.S. / 6 °C B.U.;
- Δt = 5 °C.

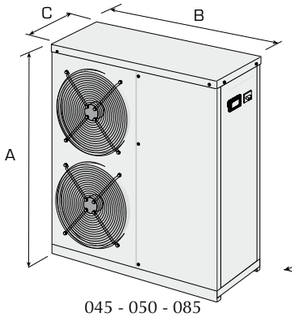
Refroidissement (3):
- Température de l'eau a la sortie 7 °C
- Température extérieure 35 °C
- Δt = 5 °C.

Pression sonore mesurée en champ libre à une distance frontale de 10 m et avec un facteur de direction 2.

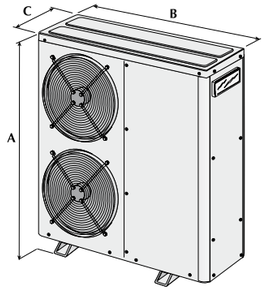
Dimensions (mm)



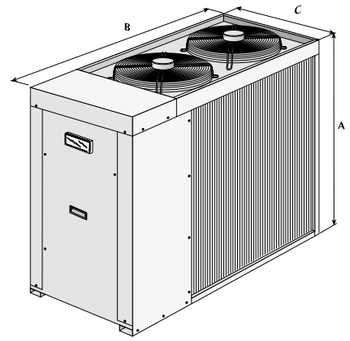
015 - 020 - 025



045 - 050 - 085



030 - 045 - 050



095- 100 - 165

ANF H		15	20	25	30	45	50	85	95	100	165
Height	B	900	900	900	1.120	1.120	1.120	1.167	1.750	1.750	1.750
Width	C	352	352	352	435	435	435	555	750	750	750
Depth	kg	78	81	85	128	129	137	252	314	353	394
Weights	A	850	850	1.000	1.250	1.250	1.250	1.580	1.345	1.345	

Cod.: SANFUY.01 / 1202

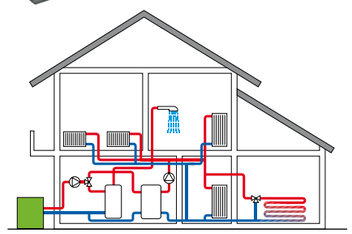
ANR

Air cooled heat pump with axial fans
Heating capacity (UNDERFLOOR HEATING) from 13.54 kW to 21.49 kW
Heating capacity (FAN COILS) from 12.83 kW to 20.34 kW
Cooling capacity from 11.90 kW to 18.10 kW

R407C







Aermec participates in the EUROVENT programme: LCP/A/P/R.
The products involved can be found at the website
www .eurovent-certification. com

- **OPTIMISED FOR OPERATION IN HEAT PUMP MODE**
- **SINGLE AND THREE–PHASE TANDEM COMPRESSORS**
- **PRODUCTION OF HOT WATER UP TO 55 °C WITH AN EXTERNAL TEMPERATURE OF –5 °C**
- **OPERATING RANGE FROM –15°C TO 46°C EXTERNAL AIR TEMPERATURE**
- **OPTION FOR PUMP AND BUFFER TANK WITH SUPPLEMENTARY ELECTRIC HEATER**

Features

- Maximum safety under all operating conditions. These heat pumps can produce hot water up to 55°C, operating at external temperatures between -15 °C and 42 °C, always ensuring continuous operation
- Available in 3 sizes
- 4 versions available:
  ANR H: Standard version
  ANR HP: Version with pump
  ANR HA: Version fitted with pump, expansion tank, water filter (for all versions) and buffer tank
  ANR HK: Version fitted with pump, expansion tank, water filter, buffer tank, electric heater.
- Scroll compressors with high capacity and low electrical power input
- Differential pressure switch supplied as standard
- Electronic controller (Modu_control) with start-up timers and control of defrosting cycles
- Electric heater for the compressor crank case.
- Anti-freeze electric heater for plate heat exchanger
- Anti-freeze electric heater for the buffer tank
- High efficiency heat exchangers
- Axial fans for quiet operation
- The units are noted for their reduced dimensions and are varnished with polyester powder coating to protect them against atmospheric agents
- Soft start, electronic starting current reduction device (standard for single phase versions).

Accessories

- **VT ANTI-VIBRATION MOUNTS: Set of** anti-vibration mounts.
- **MODU-485A:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **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 for outdoor unit.
- **DRE:** Electronic soft starter. Reduces starting current by about 30%.
- **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 a 7 core screened cable, minimum size 0.5 mm.

Compatibility with the VMF system
- **VMF-CRP**
- **VMF-VOC**
- **VMF-ACS**
- **VMF-E5B|N**

For further system information please refer to the specific documentation.

	Accessory compatibility					
Standard	**DCPX**	**PR3**	**VT**	**BDX**	**AERWEB300**	**DRE (*)**
ANR 0502H	✔	✔	VT9	✔	✔	(x 2)
ANR 0802H	✔	✔	VT9	✔	✔	(x 2)
ANR 0902H	✔	✔	VT9	✔	✔	(x 2)
With pump						
ANR 0502HP	standard	✔	VT9	✔	✔	(x 2)
ANR 0802HP	standard	✔	VT9	✔	✔	(x 2)
ANR 0902HP	standard	✔	VT9	✔	✔	(x 2)
With buffer tank						
ANR 0502HA	✔	✔	VT9	✔	✔	(x 2)
ANR 0802HA	✔	✔	VT9	✔	✔	(x 2)
ANR 0902HA	✔	✔	VT9	✔	✔	(x 2)
With buffer tank + electric heater						
ANR 0502HK	✔	✔	VT9	✔	✔	(x 2)
ANR 0802HK	✔	✔	VT9	✔	✔	(x 2)
ANR 0902HK	✔	✔	VT9	✔	✔	(x 2)

(*) = Only for versions at 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.

Configuration fields:

1 2 3 | 4 5 6 7 | 8 | 9 | 10 | 11 | 12 | 13
Code | Size | Model | Version | Heat recovery | Coil | Evaporator | Power supply

Code:
ANR

Size:
0502, 0802, 0902

Model:
H - Heat pump

Version:
° - Standard
P - With pump
A - With buffer tank and pump
K - With buffer tank and pump + electric heater

Heat recovery:
° - Standard

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium

Evaporator:
° - PED regulations

Power supply:
° - 400V 3N ~50Hz
M - 230V ~ 50Hz

Attention:
– the standard options are shown by the symbol °

Example of configuration code: **ANR0502HAR°°**
This is an ANR unit, size 0502 with refrigerant R407c, heat pump model, with buffer tank and pump, with copper condenser coil, with evaporator and with electrical panel for compressors with motors 3N~ 400V 50Hz.
As each option is represented in a unique way from all the others it is not necessary to indicate (within the configuration code) the standard options (identified by °).

Technical Data

Model ANR			502	802	902
Heat mode 30/35°C air 7°C db/6°C wb (UNDERFLOOR HEATING) - 230V/1/ 50 Hz					
Heating capacity	H	kW	13,96	17,61	21,49
	HP-HA-HK	kW	13,73	17,33	21,17
Total input power	H	kW	3,88	4,98	5,9
	HP-HA-HK	kW	3,96	5,02	5,91
COP	H	kW/kW	3,6	3,54	3,64
	HP-HA-HK	kW/kW	3,47	3,45	3,58
Total input current	H	A	18,7	25,4	29,1
	HP-HA-HK	A	20,6	27,4	31
Water flow rate	H	l/h	2400	3030	3700
	HP-HA-HK	l/h	2360	2980	3640
Pressure drop	H	kPa	20	32	37
Useful head available	HP-HA-HK	kPa	84	70	60
HEAT MODE 40/45°C air 7°C db/6°C wb (FAN COILS) - 230V/1/ 50 Hz					
Heating capacity	H	kW	13,24	16,74	20,34
	HP-HA-HK	kW	13,02	16,47	20,02
Total input power	H	kW	4,5	5,68	6,82
	HP-HA-HK	kW	4,59	5,74	6,87
COP	H	kW/kW	2,94	2,95	2,98
	HP-HA-HK	kW/kW	2,84	2,87	2,91
Total input current	H	A	21,2	28	32,9
	HP-HA-HK	A	23,2	29,9	34,8
Water flow rate	H	l/h	2280	2880	3500
	HP-HA-HK	l/h	2240	2830	3440
Pressure drop	H	kPa	18	29	34
Useful head available	HP-HA-HK	kPa	82	73	65
HEAT MODE **/55°C air 7°C db/6°C wb (LOW TEMPERATURE RADIATORS) - 230V/1/ 50 Hz					
Heating capacity	H	kW	12,45	15,8	19,18
	HP-HA-HK	kW	12,25	15,55	18,89
Total input power	H	kW	5,25	6,7	7,97
	HP-HA-HK	kW	5,34	6,8	8,02
COP	H	kW/kW	2,37	2,36	2,4
	HP-HA-HK	kW/kW	2,29	2,29	2,36
Total input current	H	A	24,81	33	38,45
	HP-HA-HK	A	27	35,4	40,62
Water flow rate	H	l/h	2400	3030	3700
	HP-HA-HK	l/h	2360	2980	3640
Pressure drop	H	kPa	20	32	37
Useful head available	HP-HA-HK	kPa	84	70	60
COOL MODE 12/7°C air 35°C - 230V/1/ 50 Hz					
Cooling capacity	H	kW	11,9	14,3	17,6
	HP-HA-HK	kW	12,1	14,6	17,9
Total input power	H	kW	4,6	5,6	7,9
	HP-HA-HK	kW	4,7	5,7	8
EER	H	kW/kW	2,59	2,55	2,55
	HP-HA-HK	kW/kW	2,57	2,56	2,56
Total input current	H	A	23,5	30,1	36,7
	HP-HA-HK	A	23,4	29	34,8
Water flow rate	H	L/H	2050	2460	3030
	HP-HA-HK	l/h	2080	2510	3080
Pressure drop	H	kPa	15	21	26
Useful head available	HP-HA-HK	kPa	90	82	75
♪ Sound pressure	H-HP-HA-HK	DB(A) (HEAT)	39,5	40	40
	H-HP-HA-HK	dB(A) (cool)	41	39	35,5
♪ Sound power	H-HP-HA-HK	dB(A) (heat)	71,5	72	72
	H-HP-HA-HK	dB(A) (COOL)	73	71	67,5
Air flow rate	H-HP-HA-HK	m3/h	6550	6450	6450
Hydraulic couplings	H-HP-HA-HK	IN	F - 1"1/4	F - 1"1/4	F - 1"1/4
		OUT	F - 1"1/4	F - 1"1/4	F - 1"1/4
Pump speed	HP-HA-HK	n°	3	3	3
Expansion tank capacity	HP-HA-HK	l	5	5	5
Buffer tank volume	HP-HA-HK	l	75	75	75

Sound power:
Aermec determines sound power values on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

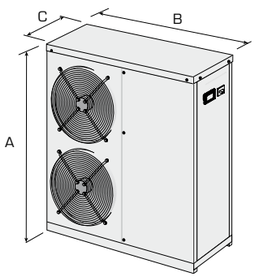
Sound pressure:
Sound pressure in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from the external surface of the unit, in accordance with ISO 3744.

Technical Data

Model ANR			502	802	902
Heat mode 30/35°C air 7°C db/6°C wb (UNDERFLOOR HEATING) - 400V/3N/50 Hz					
Heating capacity	H	kW	13,77	17,22	20,96
	HP-HA-HK	kW	13,54	16,95	20,64
Total input power	H	kW	3,72	4,55	5,48
	HP-HA-HK	kW	3,8	4,6	5,51
COP	H	kW/kW	3,7	3,78	3,82
	HP-HA-HK	kW/kW	3,56	3,68	3,75
Total input current	H	A	8,1	10	11,7
	HP-HA-HK	A	10	12	13,7
Water flow rate	H	l/h	2360	2960	3610
	HP-HA-HK	l/h	2330	2920	3550
Pressure drop	H	kPa	20	30	36
Useful head available	HP-HA-HK	kPa	85	71	65
HEAT MODE 40/45°C air 7°C db/6°C wb (FAN COILS) - 400V/3N/50 Hz					
Heating capacity	H	kW	13,05	16,41	20
	HP-HA-HK	kW	12,83	16,14	19,69
Total input power	H	kW	4,33	5,28	6,48
	HP-HA-HK	kW	4,43	5,34	6,51
COP	H	kW/kW	3,01	3,1	3,09
	HP-HA-HK	kW/kW	2,9	3,02	3,02
Total input current	H	A	8,8	10,8	12,9
	HP-HA-HK	A	10,7	12,8	14,8
Water flow rate	H	l/h	2240	2820	3440
	HP-HA-HK	l/h	2210	2780	3390
Pressure drop	H	kPa	18	28	33
Useful head available	HP-HA-HK	kPa	86	75	68
HEAT MODE **/55°C air 7°C db/6°C wb (LOW TEMPERATURE RADIATORS) - 400V/3N/50 Hz					
Heating capacity	H	kW	12,36	15,42	18,85
	HP-HA-HK	kW	12,16	15,18	18,57
Total input power	H	kW	5,06	6,28	7,57
	HP-HA-HK	kW	5,16	6,35	7,61
COP	H	kW/kW	2,44	2,46	2,49
	HP-HA-HK	kW/kW	2,36	2,39	2,44
Total input current	H	A	10,3	12,95	15,06
	HP-HA-HK	A	12,42	15,2	17,3
Water flow rate	H	l/h	2360	2960	3610
	HP-HA-HK	l/h	2330	2920	3550
Pressure drop	H	kPa	20	30	36
Useful head available	HP-HA-HK	kPa	85	71	65
COOL MODE 12/7°C air 35°C - 400V/3N/50 Hz					
Cooling capacity	H	kW	11,9	14,4	17,8
	HP-HA-HK	kW	12,1	14,7	18,1
Total input power	H	kW	4,4	5,3	6,6
	HP-HA-HK	kW	4,5	5,4	6,7
EER	H	kW/kW	2,7	2,72	2,7
	HP-HA-HK	kW/kW	2,69	2,72	2,7
Total input current	H	A	9,4	11,5	14
	HP-HA-HK	A	10,6	12,6	14,6
Water flow rate	H	L/H	2050	2480	3060
	HP-HA-HK	l/h	2080	2530	3110
Pressure drop	H	kPa	15	22	26
Useful head available	HP-HA-HK	kPa	90	81	75
♪ Sound pressure	H-HP-HA-HK	dB(A) (heat)	39,5	40	40
	H-HP-HA-HK	dB(A) (cool)	41	39	35,5
♪ Sound power	H-HP-HA-HK	dB(A) (heat)	71,5	72	72
	H-HP-HA-HK	dB(A) (cool)	73	71	67,5
Air flow rate	H-HP-HA-HK	m3/h	6550	6450	6450
Hydraulic couplings	H-HP-HA-HK	IN	F - 1"1/4	F - 1"1/4	F - 1"1/4
		OUT	F - 1"1/4	F - 1"1/4	F - 1"1/4
Pump speed	HP-HA-HK	n°	3	3	3
Expansion tank capacity	HP-HA-HK	l	5	5	5
Buffer tank volume	HP-HA-HK	l	75	75	75

Dimensions (mm)

ANR	Vers.		502	802	902
Height (A)		mm	1580	15800	1580
Width (B)		mm	1277	1277	1277
Depth (C)		mm	555	555	555
Weight empty	H	kg	223	232	247
	HP	kg	229	238	253
	HA	kg	248	257	272
	HAK	kg	253	262	277



Cod.: SANRUY.01 / 1007

AERMEC

NEW

ANK

Air cooled heat pump with axial fans
Heating capacity from 7.98 to 33.51 kW
Cooling capacity from 6.82 to 29.92 kW

R410A

ehpa european heat pump association

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

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- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **OPTIMISED FOR HEAT PUMP OPERATION**
- **HIGH EFFICIENCY COMPRESSORS**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO –20 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM –20 °C UP TO 42 °C**
- **AVAILABLE OPTIONS:**

– WITH PUMP

– WITH PUMP AND BUFFER TANK

Characteristics

- Available in 8 sizes
- 3 versions available:
  ANK H: **Standard**
  ANK HP: **With pump**
  ANK HA: **With pump and buffer tank**
- High-efficiency scroll compressor with crank case heater
- High efficiency heat exchangers with trace heating as standard
- Flow switch fitted as standard
- Electronic controller with start timers and control of defrost cycles
- Axial flow fans for quiet operation
- Metal enclosure with anti-corrosion polyester paint
- Electronic soft start to reduce starting current (standard for single phase versions)

Accessories

- **VT ANTI-VIBRATION MOUNTS: Set of** anti-vibration mounts.
- **MODU-485A:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **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.
- **DRE:** Electronic soft starter. Reduces starting current by about 30%.
- **KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **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)
- **BDX:** Condensate drip tray with integrated electric heater controlled by the external air temperature sensor.
- **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 a 7 core screened cable, minimum size 0.5 mm.

Compatibility with the VMF system

- **VMF-CRP**
- **VMF-VOC**
- **VMF-ACS**
- **VMF-E5B|N**

For further system information please refer to the specific documentation.

ANK	Vers.	020	030	040	045	050	085	100	150
VT	H-HP	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15
	HA	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15
⚠ BDX		BDX8	BDX9	BDX9	BDX9	BDX9	BDX9	-	-
ELECTRICAL ACCESSORIES									
⚠ DRE5 [1]		✔	✔	✔	✔	✔	✔	✔(x2)	✔(x2)
DCPX51 [2]		✔	✔	✔	✔	✔	✔		
DCPX53 [2]								✔	✔
MODU-485A [2]		✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300		✔	✔	✔	✔	✔	✔	✔	✔
VMF-CRP		✔	✔	✔	✔	✔	✔	✔	✔
VMF-VOC		✔	✔	✔	✔	✔	✔	✔	✔
VMF-E5B o N [2]		✔	✔	✔	✔	✔	✔	✔	✔
VMF-ACS3KM [2]	230V-1	✔	✔	✔	✔				
VMF-ACS3KTN [2]	400V-3N	✔	✔	✔	✔	✔	✔	✔	✔
VMF-ACS6KTN [2]	400V-3N	✔	✔	✔	✔	✔	✔	✔	✔
VMF-ACS8KTN [2]	400V-3N	✔	✔	✔	✔	✔	✔	✔	✔
⚠ KRB1		✔							
KRB2			✔	✔	✔	✔	✔		
KRB3								✔	✔
PR3		✔	✔	✔	✔	✔	✔	✔	✔
BS4KW230M		✔	✔	✔	✔				
BS6KW230M		✔	✔	✔	✔				
BS6KW400T		✔	✔	✔	✔	✔	✔	✔	✔
BS9KW400T		✔	✔	✔	✔	✔	✔	✔	✔

NOTE:
1. **Only available for 400V/3N/50Hz units. Factory fitted only.**
2. **MODU-485A | DCPX | VMF-ACS | VMF E5 accessories are mandatory for the control and production of DHW.**

⚠ **Accessories DRE/KRB1/KRB2/KRB3 and BDX8/9 factory fitted only.**

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13
Code	Size	Model	Version	Execution	Coil	Field of use	Evaporator	Power supply

Code:
ANK

Size:
020, 030, 040, 045, 050, 085, 100, 150

Model:
H - Heat pump

Version:
° - Standard
P - With pump
A - With pump and buffer tank

Execution:
° - Standard

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Epoxy coated aluminium

Field of use:
° - Leaving water temperature down to +4 °C
Z - Leaving liquid temperature from +4 °C down to 0 °C
Y - Leaving liquid temperature from 0 °C down to -8 °C

Evaporator:
° - Standard

Power supply:
° - 400V/3N/50Hz
M - 230V/1/50Hz for sizes 020 - 030 - 040 - 045

Attention:
- the standard options are shown by the symbol °

Example of the configuration code: ANK085HP°R°°
This is an ANK unit, size 085, heat pump model, with pump, standard execution, copper condenser coil, standard evaporator, and electrical panel 400V/3N/50Hz.

Technical Data

ANK		Vers.		020	030	040	045	050	085	100	150
Heating capacity	H	230V/1	kW	7.98	10.05	10.88	13.50	-	-	-	-
		400V/3N	kW	7.98	10.05	12.26	14.07	15.38	17.49	27.19	33.51
	HP-HA	230/1	kW	7.87	9.91	10.74	13.29	-	-	-	-
		400V/3N	kW	7.87	9.91	12.10	13.85	15.15	17.25	26.59	32.72
Total input power	H	230/1	kW	2.54	3.11	3.47	3.88	-	-	-	-
		400V/3N	kW	2.50	3.11	3.79	4.18	4.44	5.07	8.43	10.56
	HP-HA	230/1	kW	2.59	3.15	3.51	3.98	-	-	-	-
		400V/3N	kW	2.55	3.15	3.81	4.27	4.54	5.16	8.37	10.61
Total input current	H	230/1	A	12	14.3	16.8	18.8	-	-	-	-
		400V/3N	A	4.6	6.1	7.5	7.9	8.8	10.2	17.2	20.8
COP	H	230/1	W/W	3.14	3.23	3.14	3.48	-	-	-	-
		400V/3N	W/W	3.19	3.23	3.23	3.37	3.46	3.45	3.22	3.17
	HP-HA	230/1	W/W	3.04	3.15	3.06	3.34	-	-	-	-
		400V/3N	W/W	3.09	3.15	3.18	3.24	3.34	3.34	3.18	3.08
Water flow rate	H	230/1	l/h	1370	1730	1870	2320	-	-	-	-
		400V/3N	l/h	1370	1730	2110	2420	2650	3010	4680	5760
	HP-HA	230/1	l/h	1350	1700	1850	2290	-	-	-	-
		400V/3N	l/h	1350	1700	2080	2380	2610	2970	4570	5630
Pressure drop	H	230/1	kPa	23.0	15.0	19.0	19.0	-	-	-	-
		400V/3N	kPa	23.0	15.0	22.0	21.0	25.0	30.0	36.0	46.0
Available head	HP-HA	230/1	kPa	61.5	67.0	63.0	80.0	-	-	-	-
		400V/3N	kPa	61.5	67.0	57.0	78.5	71.0	64.0	112	135
Cooling capacity	H	230/1	kW	6.82	8.15	9.55	11.69	-	-	-	-
		400V/3N	kW	6.76	8.15	10.48	11.57	13.04	15.48	25.20	29.20
	HP-HA	230/1	kW	6.91	8.25	9.67	11.85	-	-	-	-
		400V/3N	kW	6.84	8.25	10.61	11.74	13.22	15.68	25.78	29.92
Total input power	H	230/1	kW	2.36	2.82	3.24	3.73	-	-	-	-
		400V/3N	kW	2.33	2.82	3.55	3.98	4.34	5.22	8.18	10.13
	HP-HA	230/1	kW	2.43	2.89	3.30	3.88	-	-	-	-
		400V/3N	kW	2.41	2.89	3.61	4.12	4.49	5.35	8.13	10.20
Total input current	H	230/1	A	11.1	13.0	15.6	18.3	-	-	-	-
		400V/3N	A	4.3	5.6	7.0	7.6	8.6	10.5	16.7	20.0
EER	H	230/1	W/W	2.89	2.89	2.95	3.13	-	-	-	-
		400V/3N	W/W	2.90	2.89	2.95	2.91	3.00	2.97	3.08	2.88
	HP-HA	230/1	W/W	2.84	2.85	2.93	3.06	-	-	-	-
		400V/3N	W/W	2.84	2.85	2.94	2.85	2.94	2.93	3.17	2.93
Water flow rate	H	230/1	l/h	1170	1400	1640	2010	-	-	-	-
		400V/3N	l/h	1160	1400	1800	1990	2240	2660	4330	5020
	HP-HA	230/1	l/h	1190	1420	1660	2040	-	-	-	-
		400V/3N	l/h	1180	1420	1820	2020	2270	2700	4430	5150
Pressure drop	H	230/1	kPa	16.5	9.5	14.0	14.0	-	-	-	-
		400V/3N	kPa	16.5	9.5	16.5	14.0	19.0	25.0	32.0	36.0
Available head	HP-HA	230/1	kPa	68.0	74.0	68.0	86.0	-	-	-	-
		400V/3N	kPa	68.0	74.0	63.0	86.0	79.0	71.0	115	143
Maximum current (FLA)	H	230/1	A	13.9	19.4	22.2	25.0	-	-	-	-
		400V/3N	A	6.1	7.7	9.1	10.6	11.8	12.3	21.7	25.8
Starting current (LRA) **3**	H	230/1	A	45.0	45.0	45.0	45.0	-	-	-	-
		400V/3N	A	39.7	40.3	54.3	61.3	71.3	91.3	72.6	104.7
COMPRESSOR SCROLL											
Quantity/circuit	all		n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1
Part load			%	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100
Refrigerant							R410A				
SYSTEM SIDE HEAT EXCHANGER											
Quantity	all		N°	1	1	1	1	1	1	1	1
Hydraulic connections	all		Ø	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
FANS AXIAL											
Quantity	all		n°	1	2	2	2	2	2	2	2
Air flow rate	all		m^3/h	3500	8000	8000	7500	7500	7500	14500	13500
Sound pressure	all		dB(A)	37.0	39.5	39.5	39.5	39.5	39.5	45.5	46.5
Sound power	all			68.0	70.5	70.5	70.5	70.5	70.5	77	78

Data declared in accordance with UNI EN 14511-2: 2011

HEATING:
Entering condenser water temperature 40 °C
Leaving condenser water temperature 45 °C
External air temperature 7 °C db / 6 °C wb

COOLING:
Entering evaporator water temperature 12 °C
Leaving evaporator water temperature 7 °C
External air temperature 35 °C

Sound power:
Aermec determines sound power values on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

Sound pressure:
Sound pressure in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from the external surface of the unit, in accordance with ISO 3744.

NOTE:
3 Single phase units have soft start fitted as standard.

Technical Data EHPA 400V/3N/50Hz

A 2/W 35		Vers.		ANK020	ANK030	ANK040	ANK045	ANK050	ANK085
Heating capacity	H	kW		6.260	8.179	9.764	11.239	11.556	13.300
	HP-HA			6.048	8.045	9.610	11.021	11.330	12.568
Total input power	H			1.870	2.545	3.074	3.378	3.550	4.110
	HP-HA			1.940	2.583	3.097	3.467	3.649	4.045
COP	H	W/W		3.348	3.214	3.176	3.327	3.255	3.236
	HP-HA			3.118	3.115	3.103	3.179	3.105	3.107

			ANK020	ANK030	ANK040	ANK045	ANK050	ANK085
Water flow rate **4**	All	l/h	1470	1840	2260	2550	2800	3222
Pressure drop	H	kPa	28	16	24	18	22	27
Available head	HP-HA		55.0	63.0	51.0	74	66	56
Air flow rate	All	m^3/h	3500	8000	8000	7500	7500	7500
Sound pressure	All	dB(A)	37.0	39.5	39.5	39.5	39.5	39.5
Sound power	All		68.0	70.5	70.5	70.5	70.5	70.5

Data declared in accordance with UNI EN 14511-2: 2008

NOTE:
A External air temperature
W Leaving condenser water temperature

4 **Water flow rates refer to conditions:**
Entering condenser water temperature. 30 °C
Leaving condenser water temperature. 35 °C
External air temperature 7 °C db / 6 °C wb

Sound power:
Aermec determines sound power values on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

Sound pressure:
Sound pressure in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from the external surface of the unit, in accordance with ISO 3744.

Technical Data

ANK		Vers.		020	030	040	045	050	085	100	150
Heating capacity	H	230V/1	kW	8.67	10.92	11.93	14.04	-	-	-	-
		400V/3N	kW	8.67	10.92	13.40	14.80	16.27	18.46	29.12	35.90
	HP-HA	230V/1	kW	8.58	10.84	11.90	13.84	-	-	-	-
		400V/3N	kW	8.58	10.84	13.24	14.88	16.12	18.31	28.49	35.06
Total input power	H	230V/1	kW	2.12	2.64	2.88	3.27	-	-	-	-
		400V/3N	kW	2.12	2.64	3.22	3.55	3.81	4.36	7.03	8.92
	HP-HA	230V/1	kW	2.21	2.64	2.90	3.37	-	-	-	-
		400V/3N	kW	2.18	2.64	3.23	3.60	3.91	4.45	6.95	8.94
COP	H	230V/1	W/W	4.10	4.14	4.14	4.29	-	-	-	-
		400V/3N	W/W	4.10	4.14	4.17	4.17	4.27	4.23	4.14	4.03
	HP-HA	230V/1	W/W	3.89	4.10	4.10	4.11	-	-	-	-
		400V/3N	W/W	3.94	4.10	4.10	4.13	4.12	4.11	4.10	3.92
Cooling capacity	H	230V/1	kW	9.44	11.30	13.23	16.30	-	-	-	-
		400V/3N	kW	9.36	11.30	14.52	16.04	18.07	21.43	33.69	39.06
	HP-HA	230V/1	kW	9.57	11.43	13.38	16.54	-	-	-	-
		400V/3N	kW	9.48	11.43	14.67	16.25	18.30	21.69	34.41	39.96
Total input power	H	230V/1	kW	2.48	2.95	3.40	3.93	-	-	-	-
		400V/3N	kW	2.45	2.95	3.73	4.18	4.56	5.50	8.88	11.02
	HP-HA	230V/1	kW	2.51	3.00	3.43	4.08	-	-	-	-
		400V/3N	kW	2.48	3.00	3.76	4.27	4.66	5.59	8.74	11.03
EER	H	230V/1	W/W	3.81	3.83	3.89	4.15	-	-	-	-
		400V/3N	W/W	3.82	3.82	3.89	3.84	3.96	3.89	3.80	3.55
	HP-HA	230V/1	W/W	3.81	3.81	3.90	4.05	-	-	-	-
		400V/3N	W/W	3.82	3.81	3.90	3.81	3.93	3.88	3.94	3.62
ESEER	H	230/1		3.16	3.24	3.28	3.46	-	-	-	-
	H	400V/3N		3.18	3.24	3.27	3.25	3.40	3.33	3.89	3.85
	HP-HA	230/1		3.28	3.37	3.45	3.47	-	-	-	-
	HP-HA	400V/3N		3.30	3.35	3.44	3.26	3.45	3.41	4.08	3.93

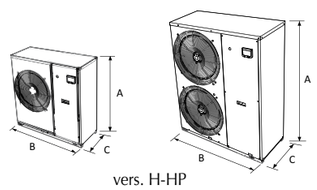
Data declared in accordance with UNI EN 14511-2: 2011

HEATING:
Entering condenser water temperature 30 °C
Leaving condenser water temperature 35 °C
External air temperature 7 °C db / 6 °C wb

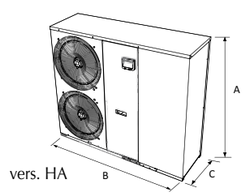
COOLING:
Entering evaporator water temperature 23 °C
Leaving evaporator water temperature 18 °C
External air temperature 35 °C

Dimensions (mm)

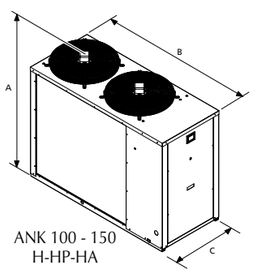
ANK	Vers.		020	030	040	045	050	085	100	150
Height (A)		mm	1028	1281	1281	1281	1281	1281	1450	1450
Width (B)	H-HP	mm	1000	1000	1000	1000	1000	1000	1750	1750
	HA	mm	1358	1450	1450	1450	1450	1450		
Depth (C)		mm	400	450	450	450	450	450	750	750
Weight empty	H	kg	118	149	152	165	172	174	296	341
	HP	kg	123	154	157	175	182	184	314	362
	HA	kg	160	211	214	232	238	241	364	412



vers. H-HP



vers. HA



ANK 100 - 150
H-HP-HA

Cod.: SANKUY.04 / 1201

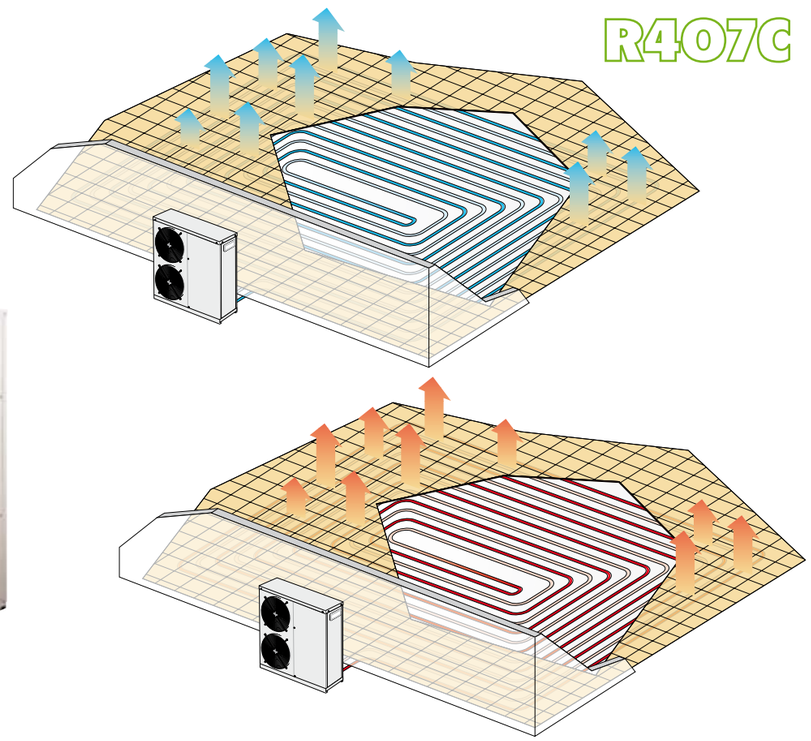
HE

Air cooled heat pump chillers for under floor systems application.
Cooling capacity 6,7 up to 47,5 kW
Heating capacity 6,3 uo to 38,7 kW

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

R407C





- **LIVING WATER TEMPERATURE UP TO 20 °C**
- **FUNCTIONING WITH AMBIENT TEMPERATURE DOWN TO –15 °C IN HEATING AND TO 46 °C IN COOLING**
- **COMPLETE WITH PUMP AND STAINLESS STEEL STORAGE TANK**
- **AVAILABLE IN SINGLE OR DOUBLE HYDRAULIC RING**

Features

- Available in 10 different sizes
- Heat pump models with high-efficiency special compressor and functioning with ambient temperature down to -15 °C
- Two versions are available:
  HE U: Version with single ring equipped with circulation pump, expansion tank, mechanical water filter, stainless steel storage tank
  HE B: Double ring version (with circuit breaker version) fitted with primary circulation pump, expansion tank, mechanical water filter , stainless steel storage tank; in this case the user circuit (radiating panel) must have a dedicated pump (not supplied)
- Scroll compressor
- Differential pressure switch or flow switch, standard
- Electronic control card and with start timing and management of defrost cycles
- High efficiency heat exchangers
- Axial flow fans for quiet operation
- Metallic protective cabinet with rustproofing polyester paint
- Electrical power supply single phase to 14 kW in cooling and 10.6 kW in heating

Note: using the HE unit for under floor cooling we suggest to provide an air dehumidification system (dehumidifier, split system, ...)

Accessories

- BDX: Condensate drip tray for outdoor unit.
- DCPX: Low temperature device for operation of outdoor units at ambient temperatures less than 19 °C down to - 10 °C.
- DRE: Current soft starter device (about 30% reduction for single-circuit-units).
  Only available for 400V/3N/50Hz power supply. It must be factory set.
- KR: Electric antifreeze heater for plate-type heat exchangers.
  Can only be applied in the factory.
- 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 30 m.
- PRD1: Smart remote panel. Repeats at a distance the functions of the panel on the machine. Can be made remote with shielded cable up to 150 m.
- RA: Antifreeze electric heater for the accumulation tank. Can only be applied in the factory.
- SDP: Card for making the PR1 accessory remote up to 150 m.
- VT: anti-vibration mounting.

Scelta dell'unità

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.

Sheet configurer:

1 2	3 4 5	6	7	8	9	10	11
Code	Size	Refrigerant	Version	Storage tank	Coils	Evaporator	Power supply

Initials:
HE

Size:
020*, 025, 030, 040, 050, 080, 090, 100, 150, 200

Refrigerant :
° - R407C

Version:
° - Standard
H - Heat pump

Buffer tank:
U - Single ring with accumulation and pump
B - Double ring with accumulation and primary pump

Batteries:
° - aluminium
R - copper
S - tinned copper
V - made of aluminium with epoxy paint

Evaporator:
° - Standard

Power supply:
° - 400V/3N/50Hz
M - 230V/1/50Hz (**)

Caution:
* The size HE 020 it's not available:
1. In the cooling version
2. With 400/3N/50 Hz power supply
– the standard options are shown by the symbol °;
– the single phase power supply (field 11: option M) is only available for sizes 025 - 030 - 040 - 050 cooling only, and for sizes 020 H - 025 H - 030 H - 040 H, for the heat pumps **.

Example of the commercial code: HE100HUR
This is an HE unit, with size 100 with R407C refrigerant gas, heat pump type single ring with storage tank and pump, with condensing coils made of copper, with evaporator and with electrical panel for compressors with motors 3~ 400V 50Hz.
As you might have noted, as every operation is represented unequivocally by all the others, it is not necessary to indicate the standard options (represented by °) inside the commercial code.

Technical data cooling only

Mod. HE	Versions	25	30	40	50	80	90	100	150	200
Cooling capacity	kW	8,4	10,1	11,9	14,5	18	23,8	27,2	35,8	47,5
Total input power	kW	2,5	3	3,5	4,2	5,1	6,7	8	10,5	13,7
Total input current 230V-1	A	11,8	15,2	17,6	21,8	---	---	---	---	---
Total input current 400V-3N	A	5,6	8	8,9	10,7	12,6	15,4	16,7	21,8	27
E.E.R.	W/W	3,36	3,37	3,4	3,45	3,53	3,55	3,4	3,41	3,47
Water flow rate	l/h	1440	1740	2050	2490	3100	4090	4680	6160	8170
Static pressure available kPa	kPa	57	54	56	50	58	57	54	58	52
Starting current 230V-1	A	63	80	104	118	---	---	---	---	---
Starting current 400V-3N	A	34	44	50	54	70	105	102	135	141
♪Sound pressure	dB(A)	36	33	33	37	37	36	44	45	46
Plumbing connections IN	Gas	1″	1″	1″	1″	1″1/4	1″1/4	1″1/2	1″1/2	1″1/2
Plumbing connections OUT	Gas	1″	1″	1″	1″	1″1/4	1″1/4	1″1/4	1″1/4	1″1/4
Water flow rate to the condenser	m3/h	3450	5300	5300	6500	6700	6450	13450	12400	12000
Accumulation tank capacity	l	35	35	35	35	75	75	145	145	145

The performance refers to the following conditions:

♪ Sound pressure in free field conditions at a distance of 10 mt.s a directional factor of 2.
In accordance with ISO 3744 regulations

The electrical data and the heads refer to models with a single ring
COOLING:
Water inlet temperature 23°C
Water outlet temperature 18°C
-outside air temp. 35 °C
- Dt = 5 °C.

Heat pump technical data

Mod. HE	Versione	20	25	30	40	50	80	90	100	150	200
Cooling capacity	kW	6,9	8,6	9,7	12	14,1	17	20,1	25,5	37	44,2
Total input power	kW	2,3	2,9	3	3,7	4,2	5,2	6,2	8,3	11,2	13,6
Total input current 230V-1	A	11,7	14,4	16	20,6	---	---	---	---	---	---
Total input current 400V-3N	A	5,5	6,2	8,1	9,4	10,4	11,8	13,6	17,9	22,2	26,3
E.E.R.	W/W	3	2,97	3,23	3,24	3,36	3,27	3,24	3,07	3,3	3,25
Water flow rate	l/h	1190	1480	1670	2060	2430	2920	3460	4390	6360	7600
Static pressure available	kPa	59	56	56	56	51	68	73	57	56	56
Heating capacity	kW	6,3	7,8	8,5	10,6	12,1	15	17,6	22,4	31,6	38,7
Total input power	kW	1,8	2,2	2,4	3	3,3	4,5	5	6,8	9,3	11,3
Total input current 230V-1	A	9,3	11,7	13	17	---	---	---	---	---	---
Total input current 400V-3N	A	4,7	5,3	7,4	8,3	9,3	11	11,9	16,4	19,9	23,3
C.O.P.	W/W	3,5	3,55	3,54	3,53	3,67	3,33	3,52	3,29	3,4	3,42
Water flow rate	l/h	1080	1340	1460	1820	2080	2580	3030	3850	5440	6660
Starting current 230V-1	A	60	76	78	101	---	---	---	---	---	---
Starting current 400V-3N	A	28	34	42	50	57	68	78	103	132	173
♪Sound pressure	db(A)	36	36	33	33	37	37	36	44	45	46
Plumbing connections IN	Gas	1″	1″	1″	1″	1″	1″1/4	1″1/4	1″1/2	1″1/2	1″1/2
Plumbing connections OUT	Gas	1″	1″	1″	1″	1″	1″1/4	1″1/4	1″1/4	1″1/4	1″1/4
Water flow rate to the condenser	m3/h	3300	3450	5300	5300	6500	6700	6450	13450	12400	12000
Buffer tank capacity	l	25	35	35	35	35	75	75	145	145	145

The performance refers to the following conditions:

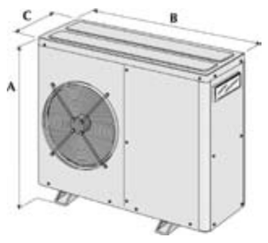
♪ Sound pressure in free field conditions at a distance of 10 mt.s a directional factor of 2.
In accordance with ISO 3744 regulations

The electrical data and the heads refer to models with a single ring
Cooling:
Water inlet temperature 23°C
Water outlet temperature 18°C
-outside air temp. 35 °C
- Dt = 5 °C.

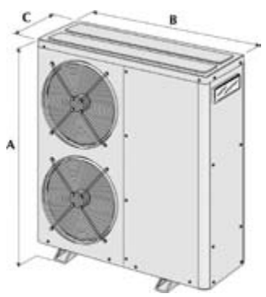
Heating:
Water inlet temperature 30°C
Water outlet temperature 35°C
outside air temp 7 °C b.s., 6 °C b.u.;
- Dt = 5 °C.C.

	Accessories available									
All the versions	**20**	**25**	**30**	**40**	**50**	**80**	**90**	**100**	**150**	**200**
DCPX 39	✔	✔	✔	✔	✔	✔	✔			
DCPX 40								✔	✔	✔
DRE 5						✔	✔	✔		
DRE 10									✔	
DRE 15										✔
BDX 5	✔	✔	✔	✔	✔					
BDX 6						✔	✔			
KR 3					✔	✔	✔	✔	✔	✔
PR3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRD1	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
RA	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
SDP	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT 7	✔	✔	✔							
VT 8				✔	✔	✔	✔			
VT 9								✔	✔	✔

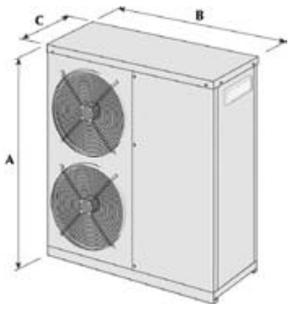
Dimensions (mm)



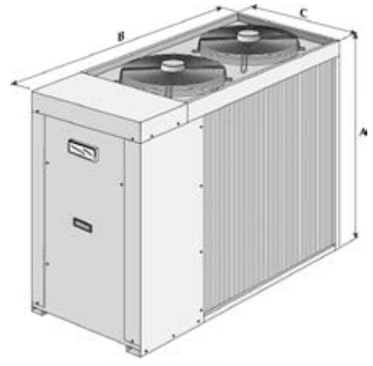
020 - 025



030 - 040 - 050



080 - 090



100 - 150 - 200

	HE/ HEH	20	25	30	40	50	80	90	100	150	200
Height	A	864	1014	1250	1250	1250	1280	1280/1580*	1345	1345	1345
Width	B	1120	1120	1120	1120	1120	1167	1167	1750	1750	1750
Depth	C	435	435	435	435	435	555	555	750	750	750
Weight	kg	108	113	135	139	152	186	196	355	377	427
Weight (versions H)	kg	112	117	141	146	158	192	223	373	417	460

*The height is referred to HE series as heat pump (HEH)

The technical data given in this documentation are not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) -

Cod.: SHEUY.05 / 1112

AERMEC

NEW

HBI

R410A

Air cooled split system heat pump for heating, cooling and production of DHW
DC Inverter Technology
Heat capacity from 8.5 kW to 16 kW

INVERTER TECHNOLOGY

HBI_C



HBI_E



HBI_WT / WTS



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

AERMEC partecipates in the EUROVENT programme for: LCP/A/S/R
The products of interest can be found on the website www .eurovent-certification. com



Unit mounted control panel (HBI_E)

Characteristics

- 6 sizes single phase HBI_C outdoor unit and 3 sizes three phase HBI_CT outdoor unit available
- 6 sizes single phase HBI_E outdoor unit (Hydronic module) and 3 sizes three phase HBI_ET outdoor unit available for wall installation, with compact dimensions
- 4 sizes of DHW Storage Tank available of 200 300 litres capacity with main coil, electric heater and supplementary heating coil
- Refrigerant R410A
- Outdoor unit with one or two fans with DC Inverter motor for continuous speed modulation
- The DC Inverter compressors have been selected to maximise efficiency, reduce consumption and minimise starting current
- Microprocessor controller
- Operating modes:
  -Cooling
  -Heating
  -Domestic Hot Water production
- Possibility of prioritising operating mode
- Very quiet operation
- Anti-legionella Cycle: function can be set via the Control Panel on the HBI_E indoor unit
- Anti-freeze function for the Hydronic Module and DHW Storage Tank
- Indoor unit fitted (hydraulic side) with:
  -water filter
  -plate heat exchanger
  -expansion vessel (10 litres)
  -electric heaters:
  1step (6 kW) for three phase unit
  2 steps (1.5 kW+1.5 kW) only HBI060E unit
  2 steps (3 kW+3 kW) single phase activated/ deactivated
  -air vent
  -safety valve (3 bar)
  -flow switch
  -circulation pump
  -gauge
- Maximum length of the refrigerant pipes up to 30 m, maximum level difference between outdoor unit and indoor unit 15 m
- Outdoor unit supplied with Base Electric Heating Kit to prevent the formation of ice during heat pump operating mode
- Indoor unit capable of controlling:
  - 2-way valve
  - 3-way valve
  - Remote contact
  - Ambient Thermostat
  - Ambient Temperature Sensor (supplied loose), can be installed in the wall in a rectangular 3-module recess box (type 503)
- Weekly Timer
- Auto-Restart Function
- Operational limits:
  -Cooling
  Outdoor air temperature +10 °C to +48 °C
  -Heating
  Outdoor air temperature -20 °C to +35 °C
  -Domestic Hot Water production
  Outdoor air temperature -20 °C to +45 °C
- Emergency Operation:
  in the event of malfunction of the outdoor unit operating Heating or DHW mode, the electric heaters are activated
- Condensing control device as standard; permits cooling mode operation with outdoor temperatures down to +10 °C

Accessories

- **HBI_WT (230V ~ 50Hz)**
- **HBI_WTT (400V 3N ~ 50Hz)**
  200, 300 litre DHW Storage Tank with main coil and 3 kW electric supplementary heater
  -Magnesium sacrificial anode
  -Stainless steel tank and coil
  -External covering in painted sheet steel and heat insulating material, thickness 50 mm
  -Indoor installation
- **HBI_WTS (230V 3N ~ 50Hz)**
- **HBI_WTST (400V 3N ~ 50Hz)**
  200, 300 litre DHW Storage Tank with main coil, supplementary heating coil and 3 kW electric supplementary heater
  -Magnesium sacrificial anode
  -Stainless steel tank and coil
  -External covering in painted sheet steel and heat insulating material, thickness 50 mm
  -Indoor installation

HBI_WT/WTS Accessory Compatibility (DHW Storage Tank)

MODEL 230V~50Hz	HBI060	HBI080	HBI100	HBI120	HBI140	HBI160
HBI200WT/WTS	✓	✓	✓	✓	✓	✓
HBI300WT/WTS	✓	✓	✓	✓	✓	✓
MODEL 400V 3N~50Hz	**-**	**-**	**-**	**HBI120**	**HBI140**	**HBI160**
HBI200WTT/WTST	-	-	-	✓	✓	✓
HBI300WTT/WTST	-	-	-	✓	✓	✓

Technical Data

		HBI060C	HBI080C	HBI100C	HBI120C	HBI140C	HBI160C	HBI120CT	HBI140CT	HBI160CT
Cooling capacity [1] (nominal)	kW	5.5	9.05	10.5	14	15	15.5	14	15	15.5
Input power [1] (nominal)	kW	1.62	2.50	3.14	3.68	4.29	4.63	3.68	4.29	4.43
EER [1]		3.4	3.62	3.34	3.8	3.5	3.35	3.8	3.5	3.5
Cooling capacity [2] (nominal)	kW	4	6.5	8.0	10	11	11.5	10	10.5	11
Input power [2] (nominal)	kW	1.54	2.50	3.08	3.45	3.93	4.6	3.45	3.75	4.07
EER [2]		2.6	2.6	2.6	2.9	2.80	2.5	2.9	2.8	2.7
Heating capacity [1] (nominal)	kW	6.2	8.5	10	12	13.5	16	12	14	15
Input power [1] (nominal)	kW	1.51	2.10	2.50	2.79	3.21	3.95	2.67	3.33	3.7
COP [1]		4.1	4.00	4.00	4.3	4.2	4.00	4.5	4.2	4.05
Heating capacity [2] (nominal)	kW	5.5	8.0	9.0	11.5	12.5	14	11	12	14
Input power [2] (nominal)	kW	1.83	2.54	2.90	3.38	3.73	4.59	3.23	3.58	4.38
COP [2]		3	3.15	3.1	3.4	3.35	3.05	3.4	3.35	3.2
Max input power (without electric heater) **Cooling**	kW	2.46	5	5	6.6	6.6	7	7.0	7.0	7.5
Max input power (without electric heater) **Heating**	kW	2.75	4.6	4.6	5.5	5.5	6	6.0	6.0	6.5
OUTDOOR UNIT										
Electric power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3N~50Hz	400V 3N~50Hz	400V 3N~50Hz
Air flow rate	m³/h	/	/	/	6398	6398	6398	3766	3766	3766
N° of fans	n°	/	1	1	2	2	2	2	2	2
R410A refrigerant charge	kg	1.7	2	2	3.3	3.3	3.3	3.5	3.5	3.5
♪ Sound pressure	dB(A)	57	57	57	57	57	60	57	57	60
♪ Sound pressure	dB(A)	59	59	59	59	59	62	59	59	62
Cooling connections Liquid	Ø	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″)
Cooling connections Gas	Ø	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″)
Cooling connections Type	Ø					flare				
INDOOR UNIT		**HBI060E**	**HBI080E**	**HBI100E**	**HBI120E**	**HBI140E**	**HBI160E**	**HBI120ET**	**HBI140ET**	**HBI160ET**
Input power indoor unit*	W	200	245	245	245	245	245	200	200	200
Pump max input power	W	200	205	205	205	205	205	200	200	200
Speeds	n°	3	3	3	3	3	3	3	3	3
Electric heater capacity power **	kW	1.5+1.5	3+3	3+3	3+3	3+3	3+3	6	6	6
Hydraulic connections (In/Out) - (Male)	Ø	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"
Expansion vessel capacity	l					10				
Electric power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3N~50Hz	400V 3N~50Hz	400V 3N~50Hz
Outlet water temperature 1 (range)	°C					18 ÷ 25				
Outlet water temperature 2 (range)	°C					7 ÷ 25				
Outlet water temperature 1 (range)	°C					25 ÷ 45				
Outlet water temperature 2 (range)	°C					25 ÷ 55				
♪♪Sound pressure	dB(A)					31				
Cooling connections Liquid	Ø	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″)
Cooling connections Gas	Ø	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″)
Cooling connections Type	Ø					flare				

HBI_WT/WTS Accessory Technical Data

Domestic Hot Water storage tank			HBI200WT/WTT	HBI200WTS/WTST	HBI300WT/WTT	HBI300WTS/WTST
Capacity		l	200	200	300	300
DHW outlet temperature		°C		40 ÷ 80 ***		
Electric heater capacity		kW	3	3	3	3
Electric heater input current		A	13	13	13	13
Electric power supply			230V~50Hz 400V 3N~50Hz	230V~50Hz 400V 3N~50Hz	230V~50Hz 400V 3N~50Hz	230V~50Hz 400V 3N~50Hz
Utility hydraulic connections (In/Out) - (Female)		Ø	G1/2″	G1/2″	G1/2″	G1/2″
Main coil hydraulic connections (In/Out) - (Female)		Ø	G3/4″	G3/4″	G3/4″	G3/4″
Supplementary coil hydraulic connections (In/Out) - (Female)		Ø	-	G3/4″	-	G3/4″
Supplementary coil	L	m	-	10	-	10
	Ø x s	mm	-	22 x 0,8	-	22 x 0,8

Data declared according to EN 14511-2

DHW outlet temperature

* **Pump max power input + Auxiliaries**
** **Electric heater 2 step ON/OFF control from Control Pane**
*** **With electric heater/without electric heaters 40 ÷ 50°C**

Under floor system
Cooling
- Inlet/outlet water temperature 23°C / 18°C
- External air temperature 35°C B.S. / 24°CB.U.

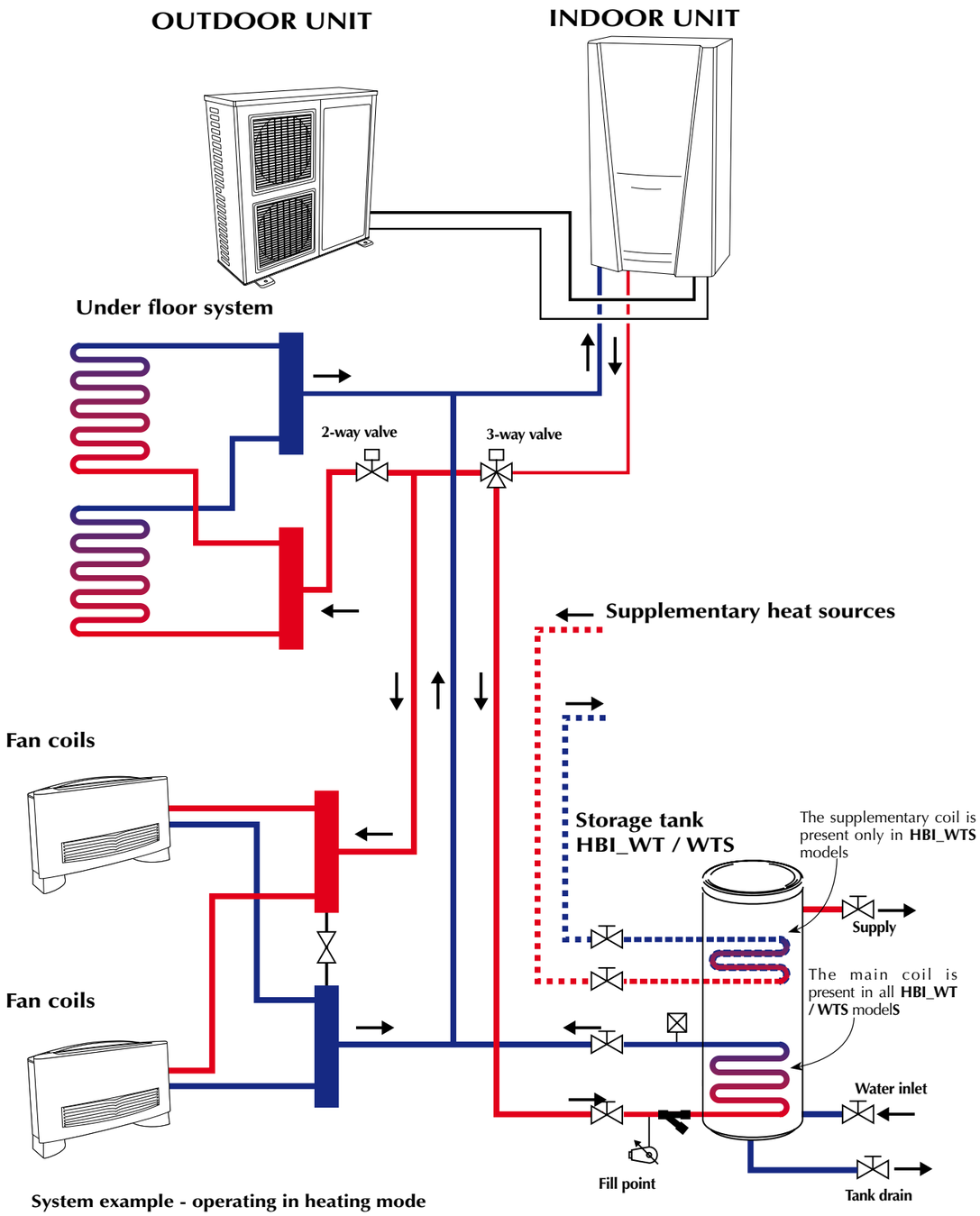
Under floor system
Heating (without electric heaters):
- Inlet/outlet water temperature 30°C / 35°C
- External air temperature 7°C B.S. / 6°C B.U.

Fan coil units
Cooling
- Inlet/outlet water temperature 12°C / 7°C
- External air temperature 35°C B.S. / 24°C B.U.

Fan coil units
Heating (without electric heaters):
- Inlet/outlet water temperature 40°C / 45°C
- External air temperature 7°C B.S. / 6°C B.U.

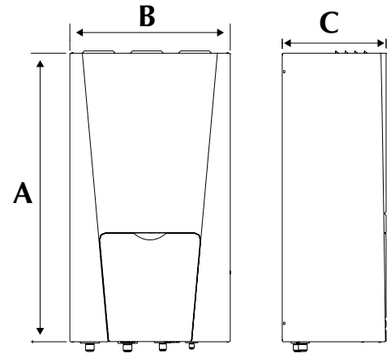
♪measured at 1m in a semi anechoic chamber
♪♪ measured at 1.4m in a semi-anechoic chamber

HBI System Configuration



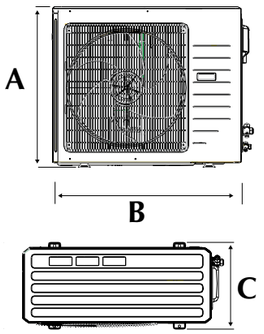
System example - operating in heating mode

Dimensional Data



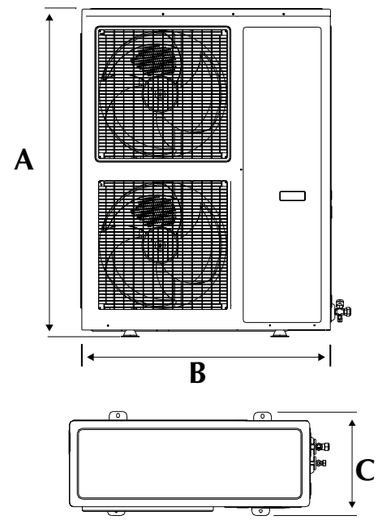
Indoor unit

MODEL	Height(A) (mm)	Width(B) (mm)	Depth(C) (mm)	Net weight (kg)	Gross weight (kg)
HBI060E	900	500	324	52	62
HBI080E	900	500	324	52	62
HBI100E	900	500	324	52	62
HBI120E	900	500	324	53	63
HBI140E	900	500	324	53	63
HBI160E	900	500	324	53	63
HBI120ET	900	500	324	53	63
HBI140ET	900	500	324	53	63
HBI160ET	900	500	324	53	63



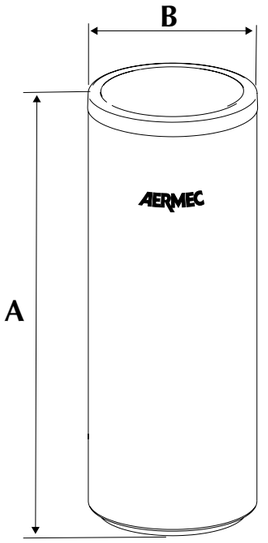
Outdoor Unit

MODEL	Height (A) (mm)	Width (B) (mm)	Depth (C) (mm)	Net weight (kg)	Gross weight (kg)
HBI060C	791	921	427	66	71
HBI080C	791	921	427	69	74
HBI100C	791	921	427	69	74



Outdoor unit

MODEL	Height (A) (mm)	Width (B) (mm)	Depth (C) (mm)	Net weight (kg)	Gross weight (kg)
HBI120C	1253	950	412	99	108
HBI140C	1253	950	412	99	108
HBI160C	1253	950	412	99	108
HBI120CT	1253	950	412	99	108
HBI140CT	1253	950	412	99	108
HBI160CT	1253	950	412	99	108



Storage Tank

MODEL	Height (A) (mm)	Width (B) (mm)	Net weight* (kg)	Gross weight (kg)
HBI200WT / WTS	1595	540	68 / 71	77 / 80
HBI300WT / WTS	1620	620	82 / 87	92 / 97

** Weight when empty*

Cod.: SHBIUY.01 / 1201

CL

Air cooled chiller and heat pump with plug fan
Capacities from 5.5 to 39.3 kW

R410A



- **OPTIMISED FOR HEAT PUMP OPERATION**
- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES FROM –20 °C TO 42 °C**
- **INTERFACES WITH VARIABLE MULTIFLOW VMF SYSTEM**
- **AVAILABLE VERSIONS: STANDARD WITH PUMP WITH PUMP AND BUFFER TANK**
- **PRODUCTION OF DOMESTIC HOT WATER (DHW) WITH EXTERNAL TEMPERATURES FROM –20°C TO 42 °C**

Characteristics

- Available in 10 sizes
- Cooling only and heat pump "H" models
- Manufactured with refrigerant R410A
- Versions available:
  "**°**" Standard
  "**P**" With pump
  "**A**" With pump, expansion tank, water filter, and buffer tank
- All versions are available for the production of low chilled liquid temperatures from 4 °C down to -6 °C. This option must be specified at time of order
- Compressor isolator and mains disconnect switch standard on all models
- Horizontal or vertical air discharge (site modified)
- High efficiency scroll compressor
- Compressor crank case heater standard on heat pump "H" models
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors conforming to regulation EU 327/2011
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchangers
- Plate heat exchanger anti-freeze electric heater "KR" standard on heat pump "H" models
- Sizes 020 to 090 are fitted as standard with a plastic moulded air discharge hood
- Condensate tray standard on heat pump "H" models

Accessories

- **DRE**: Electronic soft starter. Reduces starting current by about 30%. Only available on three phase units and factory fitted only.
- **FRC**: Duct flange made from painted galvanised steel for ducted air intake and ducted air discharge **(available only for sizes 100, 150, 200)**
- **GPCL**: Protective grille. Protects the external condenser coil from damage.
- **KR**: Plate heat exchanger anti-freeze electric heater. **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.
- **RA**: Buffer tank anti-freeze electric heater. **Factory fitted only.**
- **VT**: Anti-vibration mounts.
- **MODU-485A:** RS-485 interface for supervising systems with MODBUS protocol.
- **INTAKE PLENUM:** Galvanised steel plenum to be installed on the condenser coil. Facilitates duct installations.

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.

Configuration fields

1 2	3 4 5	6	7	8	9	10	11	12	13
Code	Size	Model	Execution	Version	Heat recovery	Coil	Field of use	Evaporator	Power supply

Code:
CL
Size:
025, 030, 040, 050, 070, 080, 090, 100, 150, 200
Model:
° - Cooling only
H - Heat pump
Execution:
° - Standard
Version:
° - Standard
P - With pump
A - With pump and buffer tank
Heat recovery:
° - Without heat recovery
D - With desuperheater (partial heat recovery)
(for cooling only sizes 050 to 200)
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Epoxy coated aluminium
Field of use:
° - Standard
Z - Low temperature leaving liquid from 0 °C to +4 °C
Y - Low temperature leaving liquid from -6 °C to 0 °C
Evaporator:
° - Standard
C - Condensing unit
Power supply:
° - 400V 3N~ 50Hz
M - 230V 1~ 50Hz (only for sizes 025 to 040)

Configurator Limitations

Heat pump "H" model
not possible with:
- thermostatic expansion valve "**Z" - "Y**"
- condensing unit **"C"**
- desuperheater option **"D"**

Heat recovery "D" option
not possible with:
- thermostatic expansion valve "**Z" - "Y**"
- condensing unit **"C"**

Accessory compatibility

All versions:	**025**	**030**	**040**	**050**	**070**	**080**	**090**	**100**	**150**	**200**
DRE	-	-	-	-	-	-	-	-	-	-
FRC	standard	standard	standard	standard	standard	standard	standard	✔	✔	✔
GPCL	-	-	-	-	-	-	-	-	-	-
(1)KR	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PR3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Version "A" only:	**025**	**030**	**040**	**050**	**070**	**080**	**090**	**100**	**150**	**200**
RA	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

(1)Accessory available only for cooling only "°" model, standard for heat pump "H" model

Technical Data

MODEL CL "°"		VERSION	025	030	040	050	070	080	090	100	150	200
Cooling capacity	kW	Standard	5.5	6.9	9.0	11.7	15.0	16.9	18.6	24.2	30.4	39.3
Total power input	kW	Standard	2.4	2.9	4.2	4.8	6.1	7.4	7.6	9.8	12.6	16.0
		A - P	2.6	3.1	4.4	5.2	6.5	7.8	8.0	10.9	14.4	17.8
Total current input A)	230V 1~	Standard	10.6	14.0	19.0	-	-	-	-	-	-	-
		A - P	11.6	15.0	20.0	-	-	-	-	-	-	-
	400V 3N~	Standard	4.5	5.8	9.4	8.6	10.3	12.2	13.2	17.5	21.1	27.4
		A - P	5.5	6.8	10.4	9.8	11.5	13.4	14.4	19.5	24.2	30.5
Water flow rate	l/h	All	953	1182	1541	2010	2587	2908	3200	4163	5231	6766
EER		Standard	2.36	2.35	2.15	2.43	2.47	2.29	2.46	2.47	2.41	2.46
ELECTRICAL DATA												
Maximum current (FLA)	230V 1~	Standard	21.6	24.6	24.7	-	-	-	-	-	-	-
		A - P	22.6	25.6	25.7	-	-	-	-	-	-	-
	400V 3N~	Standard	11.1	11.6	12.6	13.7	15.4	17.0	20.4	27.4	30.8	40.8
		A - P	12.1	12.6	13.6	14.9	16.6	18.2	21.6	29.3	33.8	43.8
Starting current	230V 1~	Standard	66.6	87.6	117.6	-	-	-	-	-	-	-
		A - P	67.6	88.6	118.6	-	-	-	-	-	-	-
	400V 3N~	Standard	37.6	40.6	71.6	77.2	77.2	77.2	105.2	90.9	92.6	125.6
		A - P	38.6	41.6	72.6	78.4	78.4	78.4	106.4	92.8	95.6	128.6
Part load	%		0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100	0-50-100
Compressor	Type		Scroll									
	n° / circuits		1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	2 / 1	2 / 1	2 / 1
Refrigerant			R410A									
Total air flow rate	m³/h		3400	4000	4000	6500	7500	8000	8500	10000	12000	16000
Type of fan			Plug Fan - EC Inverter Motor									
Number of fans			1	1	1	1	1	1	1	2	2	2
Evaporator			Plates									
	n°		1	1	1	1	1	1	1	1	1	1
Hydraulic connections	Ø IN/OUT	All	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4
Water content heat exchanger	dm³	All	-	-	-	-	-	-	-	-	-	-
Buffer tank volume	l	A	50	100	100	100	100	100	100	100	100	100
Expansion tank volume	l	A - P	2	5	5	5	5	5	5	8	8	8

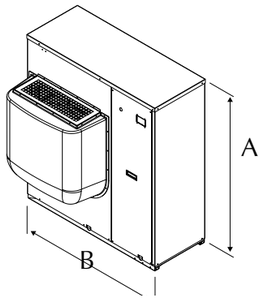
MODEL CL "H"		VERSION	025	030	040	050	070	080	090	100	150	200
Cooling capacity	kW	Standard	6.4	8.0	9.6	12.0	14.0	15.6	18.5	24.0	31.4	38.3
Total input power	kW	Standard	2.7	3.5	4.5	4.4	5.0	5.8	7.7	8.9	11.6	16.0
		A - P	2.9	3.7	4.7	4.8	5.4	6.2	8.1	10.0	13.4	17.8
Total input current cooling mode A)	230V 1~	Standard	12.8	16.3	19.4	-	-	-	-	-	-	-
		A - P	13.8	17.3	20.4	-	-	-	-	-	-	-
	400V 3N~	Standard	5.8	7.4	9.2	7.4	8.7	10.3	13.4	15.0	20.3	27.4
		A - P	6.8	8.4	10.2	8.6	9.9	11.4	14.6	16.9	23.4	30.5
Water flow rate	l/h	All	1105	1383	1657	2056	2413	2679	3180	4126	5394	6590
EER		Standard	2.35	2.30	2.16	2.74	2.80	2.70	2.39	2.71	2.70	2.39
Heating capacity	kW	Standard	8.2	10.1	12.3	15.0	16.5	19.2	21.7	28.8	36.7	42.7
Total input power	kW	Standard	2.6	3.3	4.3	4.3	4.9	5.6	7.2	8.3	10.5	14.7
		A - P	2.8	3.5	4.5	4.7	5.3	6.0	7.6	9.4	12.3	16.4
Total input current heating mode (A)	230V 1~	Standard	11.9	15.2	17.2	-	-	-	-	-	-	-
		A - P	12.9	16.2	18.2	-	-	-	-	-	-	-
	400V 3N~	Standard	5.6	7.0	8.2	7.3	8.7	10.1	12.8	14.2	18.9	25.9
		A - P	6.6	8.0	9.2	8.5	9.8	11.2	14.0	16.2	22.0	29.0
Water flow rate	l/h	All	1406	1740	2113	2572	2833	3304	3736	4958	6307	7346
COP		Standard	3.17	3.11	2.87	3.48	3.36	3.43	3.01	3.48	3.49	2.91
ELECTRICAL DATA												
Maximum current (FLA)	230V 1~	Standard	18.8	23.7	26.5	-	-	-	-	-	-	-
		A - P	19.8	24.7	27.5	-	-	-	-	-	-	-
	400V 3N~	Standard	11.0	12.0	13.3	13.5	14.7	15.2	20.4	27.0	30.3	40.8
		A - P	12.0	13.0	14.3	14.7	15.9	16.3	21.6	29.0	33.4	43.8
Starting current (LRA)	230V 1~	Standard	86.1	95.5	98.6	-	-	-	-	-	-	-
		A - P	87.1	96.5	99.6	-	-	-	-	-	-	-
	400V 3N~	Standard	44.6	44.6	58.6	64.2	74.2	94.2	105.2	77.7	109.3	125.6
		A - P	45.6	45.6	59.6	65.4	75.4	95.4	106.4	79.6	112.4	128.6
Parr load	%		0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100	0-50-100
Compressor	Type		Scroll									
	n° / circuits		1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	2 / 1	2 / 1	2 / 1
Refrigerant			R410A									
Total air flow rate	m³/h		3400	4000	4000	6500	7500	8000	8500	10000	12000	16000
Type of fan			Plug Fan - EC Inverter Motor									
Number of fans			1	1	1	1	1	1	1	2	2	2
Evaporator			Plates									
	n°		1	1	1	1	1	1	1	1	1	1
Hydraulic connections	Ø IN/OUT	All	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4	1"1/4
Water content heat exchanger	dm³	All	-	-	-	-	-	-	-	-	-	-
Buffer tank volume	l	A	50	100	100	100	100	100	100	100	100	100
Expansion tank volume	l	A - P	2	5	5	5	5	5	5	8	8	8

Cooling
entering water temperature 12 °C
leaving water temperature 7 °C
external air temperature 35 °C
Δt = 5 K

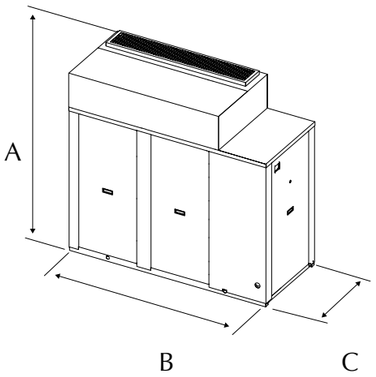
Heating
entering water temperature 40 °C
leaving water temperature 45 °C
external air temperature 7 °C db / 6 °C wb

Dimensional Data (mm)

Size 025 to 090

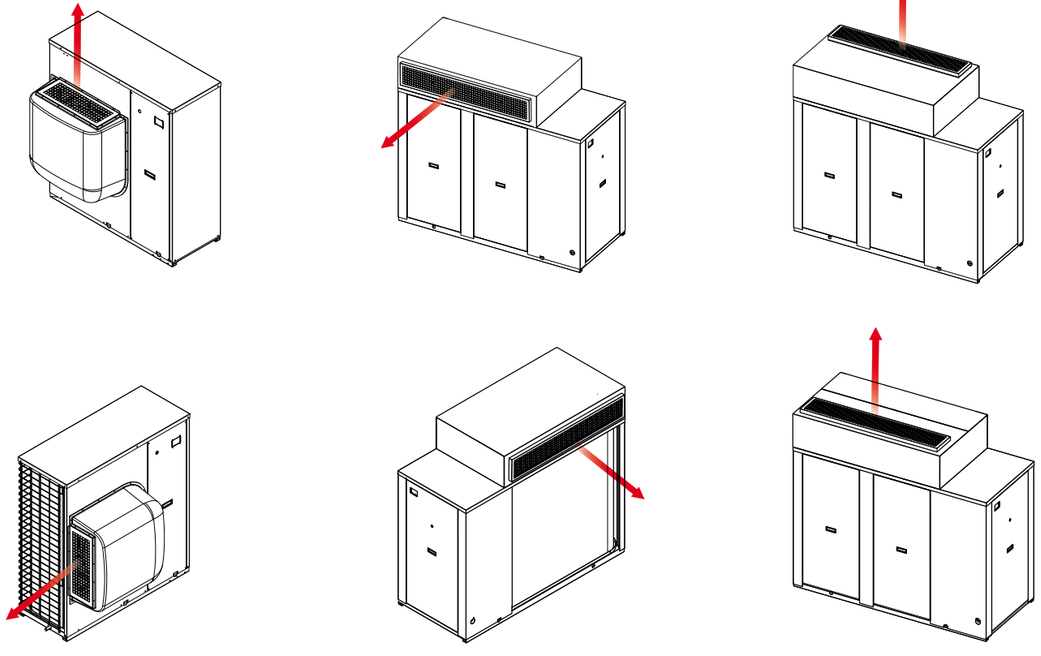


Size 100 to 200



Model « ° - H »		VERSION	025	030	040	050	070	080	090	100	150	200
Height (A)	mm	° - P - A	1028	1281	1281	1281	1281	1281	1281	1685	1685	1685
Width (B)	mm	° - P	1000	1000	1000	1150	1150	1150	1150	2010	2010	2010
		A	1358	1450	1450	1600	1600	1600	1600			
Depth (C)	mm	° - P - A	650	700	700	750	750	750	750	845	845	845

Discharge hood possible configurations (site modified)



Cod.:SCLUY.00 /1202

AERMEC

SRA

Heat pumps only for hot water production systems, up to 65°C, and domestic hot water up to 50 °C
Heating capacity from 10 up to 18 kW

R407C

ehpa european heat pump association



- **STANDARD VERSION**
- **VERSION EQUIPPED WITH CIRCULATION PUMP**
- **VERSION EQUIPPED WITH OVERSIZED PUMP**

HOT WATER PRODUCTION FOR SYSTEM, UP TO 65 °C
PRIORITY DIRECTED TO DOMESTIC HOT WATER (A.C.S.) UP TO 50 °C

Features

SRA is a line of heat pumps with air-cooled condensing units that use the refrigerant R470C. They heat water up to 65°C and can operate down to -15°C, with prioritized production of domestic hot water. These are external units with hermetic Scroll compressors that perfectly meet the needs of the residential and services markets: reduced dimensions, easy installation, and quiet.

High energy efficiency
SRA heat pumps were designed to offer high efficiency in all use conditions. Particular care was taken with the heat pump performance. The components chosen provide high energy efficiency, with a notable decrease in consumption.

Performance down to -15 °C
SRA heat pumps were designed with a focus on winter performance. Next generation regulation guarantees that the heat pump will function well beyond the normal limits of traditional units.

As a option is possible installation integrated resistance
SRA heat pumps can be integrated with resistance directly managed by the unit's electronics. Resistance activation depends on external air temperature and the temperature of the water in the system, making it possible to constantly maintain water temperature at the perfect level.

Dynamic set point
SRA heat pumps come with an external air temperature sensor. Based on the external conditions, the regulator automatically modifies the system's water temperature set point, improving energy efficiency for the system.

Priority directed to domestic hot water (A.C.S.)
The unit guarantees production of domestic hot water up to 50 °C, as long as the appropriate domestic hot water storage (ACCESSORY) is included, and the guarantee is valid for both summer and winter.

Advantages
The technological choices made, always focused on maximum quality and the use of the most innovative technology, mean that SRA offers high efficiency, easy installation, and a wide range of usage options.

- Available in three sizes
- SRA°: Heat pump with production of domestic hot water. Available with three-phase or single-phase power supply. The single-phase version comes with soft-start installed.
- SRA P: Heat pump with production of domestic hot water. Available with three-phase or single-phase power supply and integrated ON-OFF pump. (A heavy duty pump is also available “N”.)

Technical Features
- High output scroll compressor and low electricity consumption
- Differential pressure switch
- Conforms to CE safety directives and to electromagnetic compatibility norms. Device safety is guaranteed by the disconnecting switch door lock found on the power supply electrical panel, which is integrated in the unit, as well as by active protection on the main components
- Controls are accessible externally, with a user interface display that shows all performance parameters in four languages
- Next generation regulation
- Easy to use remote control panel with alarms included

Accessories

- **VT**: Anti-vibration supports, a group of four anti-vibrating supports to be placed under the sheet steel foundation of the unit.
- **DHW**: Management kit with the components necessary for production of domestic hot water (anti-legionella cycle included).
- **S...S**: Domestic hot water storage, available in 300, 400, and 500 litres (S300S, S400S, and S500S).
- **S...I:** System storage; available in 200, 300, 400, and 500 litres (S200I, S300I, S400I, and S500I)
- **RXS**: Domestic hot water storage resistance; available in 3kW single phase (RXS3M), or in 3 - 6 - 8 kW three phase (RXS3T, RXS6T, RXS8T).
- **MODU-485A**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **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.
- **Compatibility with the VMF system**
  VMF-CRP
  VMF-VOC
  VMF-ACS
  VMF-E5B|N
  For more information refer to the documentation dedicated.

Accessory compatibility

Mod. SRA	10M	10T	14M	14T	19T
VT	15	15	15	15	15
MODU-485A	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔
PR3	✔	✔	✔	✔	✔
S300S	✔	✔	✔	✔	
S400S - S500S	✔	✔	✔	✔	✔
S200I - S300I - S400I -S500I	✔	✔	✔	✔	✔

COMPATIBILITY BETWEEN DOMESTIC HOT WATER STORAGE AND DOMESTIC STORAGE RESISTANCE (RXS)

	RXS3M	RXS3T	RXS6T	RXS8T
S300S	✔	✔	✔	
S400S	✔		✔	✔
S500S	✔		✔	✔

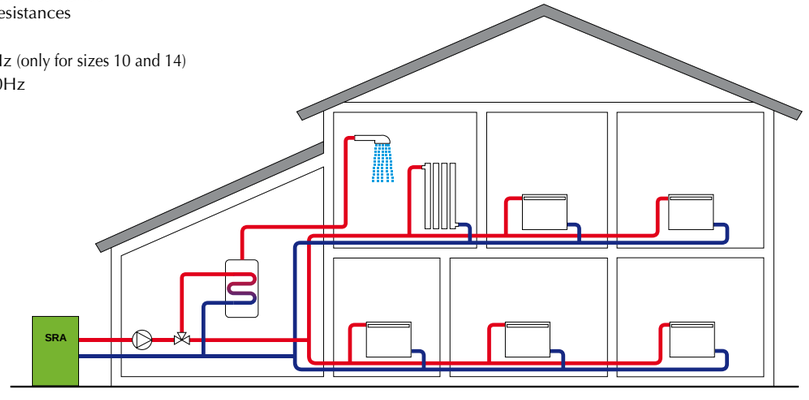
Unit selection

By judiciously combining the numerous options available, each model can be configured in a way that satisfies the most specific system needs.

Configuration rules:

1 2 3 | Code — 4 5 | Size — 6 | Soft-start kit — 7 | electric resistances — 8 | version — 9 | Power supply

Code:
SRA
Size:
10 - 14 - 19
Version:
° - Standard
P - with pump
N - with oversized pump
Soft-start:
(factory installed for single phase versions)
° - Standard
S - With Soft-start kit (to be factory installed)
Integrated resistances:
° - Without integreted resistance
R - With electric resistances
Power supply:
M - 1~ 230V 50Hz (only for sizes 10 and 14)
T - 3N~ 400V 50Hz



Technical data

Mod. SRA				10M	10T	14M	14T	19T
Heating capacity	°	230V/1	kW	10,03	-	14,00	-	-
		400V/3N	kW	-	10,10	-	14,10	18,34
	P	230/1	kW	9,9	-	13,8	-	-
		400V/3N	kW	-	10,08	-	13,9	18,15
Total power input	°	230/1	kW	2,52	-	3,69	-	-
		400V/3N	kW	-	2,29	-	3,57	4,70
	P	230/1	kW	2,61	-	3,74	-	-
		400V/3N	kW	-	2,41	-	3,62	4,52
Total current input	°	230/1	A	13,1	-	21,0	-	-
		400V/3N	A	-	4,6	-	6,1	8,8
	P	230/1	A	14,1	-	22,0	-	-
		400V/3N	A	-	3,6	-	7,1	9,8
	N	230/1	A	14,5	-	22,6	-	-
		400V/3N	A	-	4,0	-	7,7	10,4
C.O.P.	°	230/1	W/W	3,98	-	3,79	-	-
		400V/3N	W/W	-	4,41	-	3,95	3,87
	P	230/1	W/W	3,79	-	3,69	-	-
		400V/3N	W/W	-	4,18	-	3,84	3,80
Water cond. flow rate	°	230/1	l/h	1730	-	2410	-	-
		400V/3N	l/h	-	1740	-	2430	3150
	P	230/1	l/h	1700	-	2370	-	-
		400V/3N	l/h	-	1720	-	2390	3120
Pressure drops	°		kPa	18	19	36	36	39
Available pressure	P		kPa	62	61	52	51	35
	N		kPa	91	90	83	82	70
Maximum current (FLA)	°	230/1	A	22,4	-	31,4	-	-
		400V/3N	A	-	7,4	-	11,4	15,4
	P	230/1	A	23,3	-	32,3	-	-
		400V/3N	A	-	8,3	-	12,3	16,4
Peak current with soft start (LRA)	H	230/1	A	45	-	45	-	-
		400V/3N	A	-	30	-	46	73
Peak current with soft start (LRA)	H	230/1	A	100	-	162	-	-
		400V/3N	A	-	42	-	66	104
Compressors						Scroll		
N° compressors/N° circuits	All		n°/n°	1/1	1/1	1/1	1/1	1/1
Part load			%	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100
Refrigerant			type			R407C		
Condenser						Plate		
Number	All		N°	1	1	1	1	1
Hydraulic connections	All		Ø	F / 1"¼	F / 1"¼	F / 1"¼	F / 1"¼	F / 1"¼
Integrated resistance OPTIONS								
Number			n°			1		
Capacity			kW			11,5		
Fans						Axial		
Number	All		n°	2	2	2	2	2
Air flow rate	All		m3/h	7.200	7.200	6.800	6.800	6.800
Sound data								
Sound power	All		dB(A)	69	69	70	70	71
Sound pressure	All		dB(A)	37	37	38	38	39

Performance is in line with norms UNI EN 14511-2: 2008

Heating
Condenser

- Input temperature 30°C;
- Output temperature 35°C;
- Δt 5°C
- External air temperature 7bs / 6bu

Sound power
Aermec determines the value, based on the measurements made, in accordance with ISO 9614-2 norms

Sound pressure
Measured in a free field frontal distance, 10 m and directionality = 2, in conformance with ISO 3744 norms

Technical data (400V/3N/50Hz)

A2/W35			SRA10T	SRA14T	SRA19T
Heating capacity	°	kW	8,03	11,33	15,06
	P	kW	7,95	11,17	14,58
Total power input	°	kW	2,25	3,45	4,76
	P	kW	2,37	3,49	4,56
C.O.P.	°	kW	3,569	3,284	3,164
	P	kW	3,354	3,201	3,197
Water cond. flow rate (1)		l/h	1720	2430	3180
Pressure drops		kPa	19	37	40
Available pressure	P	kPa	61	51	44
Air flow rate	All	m3/h	7200	6800	6800
Sound pressure	All	dB(A)	37	38	39
Sound power	All	dB(A)	69	70	71

TECHNICAL DATA UNI EN 14511-2: 2008
NOTE:
A Ambient air temperature
W Condenser outlet water temperature

(1) The water flow rate declared:
Condenser inlet water temperature 30°C
Condenser outlet water temperature. 35°C
Ambient air temperature 7°C b.s. / 6° C b.u.

Sound power
Aermec determines sound power values on the basis of measurements made in compliance with the ISO 9614-2 Standard, in agreement with that requested by Eurovent certification

Sound pressure
Sound pressure in free field conditions on reflective surface (directivity factor Q=2) at 10 mt from the external surface of unit, in compliance with ISO 3744 regulations.

Dimensions (mm)

SRA (°/P/N)		10	14	19
Height	mm	1252	1252	1252
Width	mm	1124	1124	1124
Depth	mm	384/428	384/428	384/428

Cod.: SSRAUY.03 / 1201

SWP

High temperature air cooled heat pumps for the production of domestic hot water

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 200 OR 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 layer with storage capacity of 200 litres, (models SWP 200, SWP 200 S1 and SWP 200 S2) and 300 litres, (SWP 300, SWP 300 S1 and SWP 300 S2)
- 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 200 and SWP 300)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 200 S1 and SWP 300 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 200 S2 and SWP 300 S2)

Dimensional Data (mm)

SWP 200 - SWP 300



SWP 200 S1 - SWP 300 S1



SWP 200 S2 - SWP 300 S2



Technical Data

Mod.		SWP 200	SWP 200 S1	SWP 200 S2	SWP 300	SWP 300 S1	SWP 300 S2
Voltage - phases - frequency	V-Ph-Hz	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50
Heating capacity in heat pump mode	W	2.150	2.150	2.150	2.150	2.150	2.150
Electric heater power	W	1500	1500	1500	1500	1500	1500
Maximum water temperature	°C	60	60	60	60	60	60
Intake air operating range	°C	+8*/+35	+8*/+35	+8*/+35	+8*/+35	+8*/+35	+8*/+35
Total input power	W	640	640	640	640	640	640
COP	W/W	3,3	3,3	3,3	3,3	3,3	3,3
Max total input current in heat pump mode	A	3,9	3,9	3,9	3,9	3,9	3,9
Max total input current in electric heater mode	A	6,8	6,8	6,8	6,8	6,8	6,8
Compressor	Type / number	reciprocating/1					
Fan	Type / number	centrifugal/1					
Air flow rate	m³/h	450	450	450	450	450	450
Min sound power	dB(A)	59	59	59	59	59	59
Max sound power	dB(A)	71	71	71	71	71	71
Max ducted length	m	10	10	10	10	10	10
Air ducts minimum diameter	mm	160	160	160	160	160	160
Working pressure	bar	6	6	6	6	6	6
♪Sound pressure level	dB(A)	52	52	52	52	52	52
DHW hot water flow connection		1″	1″	1″	1″	1″	1″
DHW cold water return connection		1″	1″	1″	1″	1″	1″
Heating system return connection		1″	1″	1″	1″	1″	1″
Heating system flow connection		1″	1″	1″	1″	1″	1″
Recirculation connection		1/2″	1/2″	1/2″	1/2″	1/2″	1/2″
Alternative heat source 1 and 2 return connection		1″	1″	1″	1″	1″	1″
Net weight	Kg	79	101	86	116	94	134
Gross weight	Kg	100	122	107	137	115	155
Storage tank capacity	L		200			300	
Unit dimensions	Height		1.670			1.865	
	Width		660			660	
	Depth		660			660	
Packaging dimensions	Height		2.050			2.050	
	Width		770			770	
	Depth		770			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.

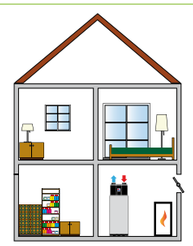
Performances in accordance with EN 255-3

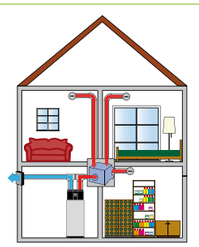
Heating:

Condenser

Inlet temperature	15 °C
Outlet temperature	50 °C
External air temperature	15 °C

Installation Examples





Cod.: SSWPUY.00 / 1010

SRP

High Temperature AIR/WATER Heat Pump only
With "PLUG FAN" fans and heating capacity from 10 up to 19 kW

R407C



INSTALLAZIONE INTERNA



OUTDOOR INSTALLATION



ELECTRICAL PANEL
TECHNICAL ROOM

- **HEAT PUMP UNIT TO PRODUCE HOT WATER UP TO 65°C WITH EXTERNAL TEMPERATURE OF –20 °C**
- **OPERATING LIMITS FROM –20°C UP TO 42°C (AMBIENT TEMPERATURE)**

Features

- Maximum safety under all working conditions. These heat pumps can produce hot water up to 65°C. They can also operate with outside temperatures ranging between -20°C and 42°C, always ensuring continuous operation.
- Available in 3 sizes and two versions
- Outdoor or indoor installation
- Possible plants layout : no. 70 - 71 - 72 - 74 (ref. to technical / installation mnaual)

Main characteristics:
- Water filter
- Safety valve
- Scroll type compressors
- High level of reliability
- High efficiency
- Electronic regulator capable of managing a double function- controlling the heat pump

and managing the hydraulic system components (Storage system, domestic hot water (DHW) storage, a three-way valve (1 max), mixing valve (1 max), pumps (3 max), probes, etc.).
- Platetype exchanger externally insulated with a closed cell cover that minimises heat loss. Optimised for enhanced efficiency
- Electric resistor for platetype exchanger.
- PLUG-FAN fan with highhead and particularly silent operation
- The units are characterised by being very compact and are varnished with polyester powders to protect them against atmospheric agents.

Accessories

- **VT**: Anti-vibration mountings, set of four vibrationdamping components to fit under the steel base of the unit.
- **S...S**: Domestic hot water (DHW) storage; available in three different capacities: 300, 400 and 500 litres (S300S, S400S and S500S).
- **RXS**: Electric resistors for domestic hot water (DHW) storage; available in two models: single-phase, 3 kW (RXS3M), or three-phase, 3 - 6 - 8 kW (RXS3T, RXS6T, RXS8T).
- **S...I**: Storage system; available in four different capacities: 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **TASRP**: Room temperature probe, it allows users to set the room air value, with a correction of ±3°C.
- **TADSRP**: Room temperature probe with display, it offers all the same functions available with Elesta control electronics.
- **QLT**: (Obligatory accessory) Electrical panel of the technical room containing the Elesta control electronics, and the power and safety components necessary for the unit to function; this accessory is available in different presentations (wired according to the type of unit chosen):
  - **QLT10RT**, electrical panel for SRP10 with domestic hot water (DHW) storage managed by a three-phase resistor;
  - **QLT10T**, electrical panel for SRP10 , three-phase standard;
  - **QLT14RT**, electrical panel for SRP14 with domestic hot water (DHW) storage managed by a three-phase resistor;
  - **QLT14T**, electrical panel for SRP14 , three-phase standard;
  - **QLT14RM**, electrical panel for SRP14 with domestic hot water (DHW) storage managed by a single-phase resistor;
  - **QLT14M**, electrical panel for SRP14 , single-phase standard;
  - **QLT19RT**, electrical panel for SRP19 with domestic hot water (DHW) storage managed by a three-phase resistor;
  - **QLT19T**, electrical panel for SRP19 , three-phase standard;
- **FV**: (Compulsory Accessory) Flange for airside channelling, needed for indoor installation;
- **COVE**: (Compulsory accessory) Upper metal cover, needed for Outdoor installation , painted with polyester powders to protect units against atmospheric agents;

Accessory compatibility

SRP	10T	14M	14T	19T
COMPULSORY ACCESSORIES:				
QLT M (single-phase units without domestic water resistors)		✔		
QLT RM (single-phase units with domestic water resistors)		✔		
QLT T (three-phase units without domestic water resistors)	✔		✔	✔
QLT RT (three-phase units with domestic water resistances)	✔		✔	✔
FV	✔	✔	✔	✔
COVE	✔	✔	✔	✔
OPTIONAL ACCESSORIES:				
TASRP	✔	✔	✔	✔
TADSRP	✔	✔	✔	✔
VT 9	✔	✔	✔	✔
AERWEB300 (SRP-V1)	✔	✔	✔	✔
S300S	✔	✔	✔	
S400S - S500S	✔	✔	✔	✔
S200I - S300I - S400I -S500I	✔	✔	✔	✔
RXS3M		✔		
RXS3T - RXS6T - RXS8T	✔		✔	✔
COMPATIBILITY BETWEEN DOMESTIC HOT WATER (DHW) TANKS AND ELECTRIC RESISTORS FOR DOMESTIC WATER STORAGE (RXS)				
S300S	✔	✔	✔	
S400S	✔		✔	✔
S500S	✔		✔	✔

Is there a version marked by the initials V1, equipped with simplified electronics can handle the drive and the production of hot water;

With the SRP - V1 is no longer necessary accessories QLT, and TDASRP TASRP; for remote control of this version is available PR3 - AERWEB300 and accessory kits are 2 pumps (for KPSRP14 SRP10-14 / KPSRP19 for SRP19) Optional accessories only at the factory. Compatibility with the VMF system: VMF-CRP - VMF-VOC - VMF-ACS - VMF-E5B|N - For more information refer to the documentation dedicated.
Example of commercial code:
SRP 14 ° ° ° T - V1 (with simplified electronic version)

Choice of Unit

Field configurer:

1 2 3	4 5	6	7	8	9
Code	Size	Ventilation	Soft start kit	Supplementary elect. resistance	Power supply

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.

Code:
SRP

Size:
10 - 14 - 19

Ventilation:
° - Standard

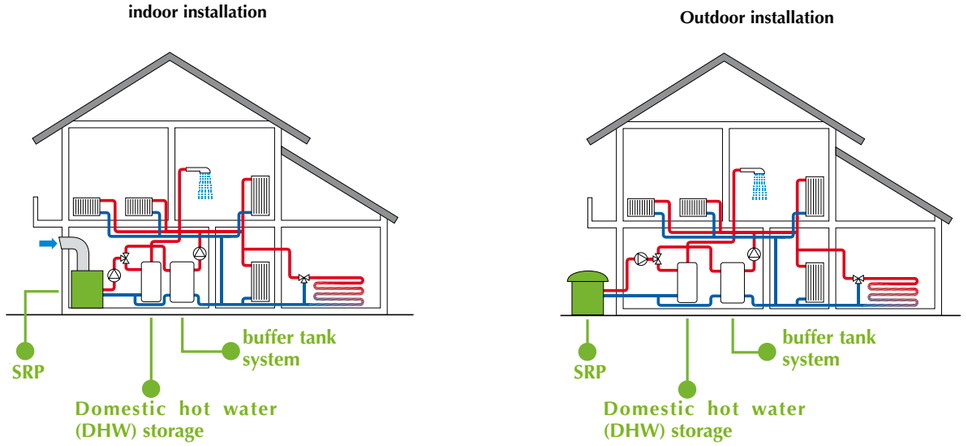
Soft-start:
(standard for the single-phase version)
° - Standard
S - With Soft-Start kit (to be assembled in the factory)

Supplementary elect. resistors:
° - Standard (without supplementary electric resistors)
R - With supplementary electric resistors

Power supply: *
M - 230V~50Hz
T - 400V 3N~ 50Hz

*** Single-phase supply available only for SRP 14M.**

Installation example



Technical data

Mod.			SRP10T	SRP14M	SRP14T	SRP19T
Heating capacity		kW	10	14,0	14,1	19,1
Total power input	400V 3N~ 50Hz	kW	2,6	/	3,4	4,72
	230V ~ 50Hz		/	3,66	/	/
Total current input	400V 3N~ 50Hz	A	5,9	/	7,3	11,7
	230V ~ 50Hz		/	22,0	/	/
Starting current with soft start	400V 3N~ 50Hz	A	30	/	46	73
	230V ~ 50Hz		/	45	/	/
Starting current	400V 3N ~ 50Hz	A	43	/	67	105
COP		W/W	3,85	3,82	4,15	4,05
Water flow rate		l/h	1.720	2.410	2.425	3.285
Pressure drops		kPa	12,5	24,0	24,0	30,0
Sound pressure		dB(A)	34,7	35,5	35,5	41,0
Sound power			66,7	67,5	67,5	73,0
Air flow rate		m^3/h	3.500	3.500	3.500	5.000
Hydraulic connections	(IN)	ø	1"¼	1"¼	1"¼	1"¼
	(OUT)		1"¼	1"¼	1"¼	1"¼
Supporting electric resistors		kW	8,2	11,5	11,5	15,5

Data stated according to EN14511: 2008
Heating:
- water outlet temperature 35 °C;
- outside air temperature 7 °C B.S., 6 °C B.U.;
- Δt = 5 °C.

Sound pressure Measured in a free field frontal distance, 10 m and directionality = 2, in conformance with ISO 3744 norms
Sound power Aermec determines the value, based on the measurements made, in accordance with ISO 9614-2 norms

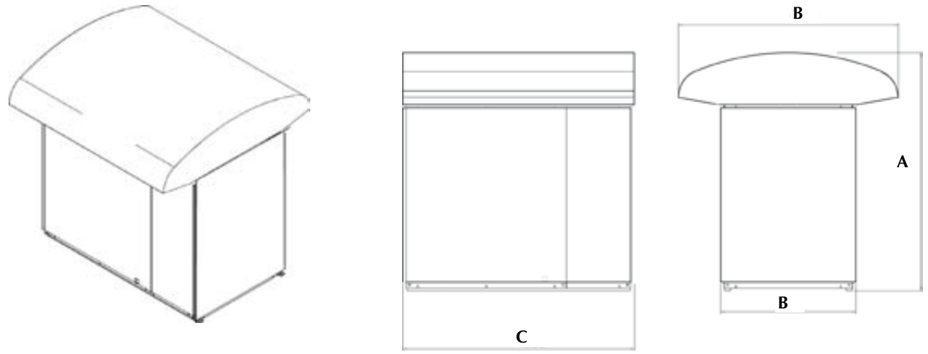
Technical data (400V/3N/50Hz)

A2/W35		SRP10T	SRP14T	SRP19T
Heating capacity	kW	7,62	11,33	15,34
Total power input	kW	2,17	3,29	4,56
COP	kW	3,52	3,44	3,36
Water flow rate [1]	l/h	1680	2430	3290
Pressure drops	kPa	12	24	30
Air flow rate	m3/h	3500	3500	5000
Sound pressure	dB(A)	35	36	41
Sound power	dB(A)	66,7	67,5	73

TECHNICAL DATA UNI EN 14511-2: 2008
NOTE:
A Ambient air temperature
W Condenser outlet water temperature
1 The water flow rate declared:
Condenser inlet water temperature. 30°C
Condenser outlet water temperature. 35°C
Ambient air temperature 7°C b.s. / 6° C b.u.

Sound power
Aermec determines sound power values on the basis of measurements made in compliance with the ISO 9614-2 Standard, in agreement with that requested by Eurovent certification
Sound pressure
Sound pressure in free field conditions on reflective surface (directivity factor Q=2) at 10 mt from the external surface of unit, in compliance with ISO 3744 regulations.

Dimensions (mm)



			SRP10 T	SRP14 M/T	SRP19 T
Height	A	Outdoor Installation	1427	1427	1427
		Indoor installation	1115	1115	1115
Width	B	Outdoor installation	1322	1322	1322
		Indoor installation	812	812	812
Depth	C		1392	1392	1392
Weight	kg	Outdoor installation	284	297	315
		Indoor installation	242	255	273

Cod.: SSRPUY.08 / 1202

NRL

Air cooled chillers with axial fans
Cooling capacity from 53 kW to 150 kW

R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT
program:LCP/A/P/C
the products are present on the site
www .eurovent-certification. com



- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**
- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **2 COOLING CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 9 sizes
- Refrigerant R410A
- 2 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Operating limits in cooling up to 46 °C ambient
- Versions available:
  - **°** Compact cooling only (sizes 500-700)
  - **L** Compact low noise cooling only (sizes 280-700)
  - **A** High efficiency cooling only (sizes 500-700)
  - **E** **High efficiency low noise cooling only (sizes 280-700)**
  - **C** Condensing unit
- Expansion valve (selected in unit configurator):
  - (°) standard thermostatic expansion valve
  - (Y) thermostatic expansion valve for low liquid temperature down to -6 °C
  - (X) electronic expansion valve
- Fan unit (selected in unit configurator):
  - "°"Standard
  - "M" High static pressure
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- 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)
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
  - Low and high pressure transducers (for sizes 280-350 the TP3 accessory is available)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessories

- **AER485**: RS-485 interface for supervision systems with MODBUS protocol.
- **VT:** set of four anti-vibration mounts, to be fitted below the unit base.
- **DCPX:** Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation. It also allows a correct operation by heating with external temperatures above 30 ° C and up to 42 ° C.
- **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.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.**
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **DUALCHILLER**: Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **TRX1:** Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **PRM1:** FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.
- **TP3:** High pressure transducer linked to the controller generates a pre-alarm in the case of high operating pressure (only for sizes 280-350).

Accessory compatibility

Mod. NRL	Vers.	280	300	330	350	500	550	600	650	700
AER485	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
TRX1	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT (00-P1-P2-P3-P4)	° - L	17	17	17	17	13	13	13	13	13
	A - E	17	17	17	17	13	13	13	13	22
VT (01-02-03-04-05-06-07-08-09-10)	° - L	13	13	13	13	10	10	10	10	10
	A - E	13	13	13	13	10	10	10	10	22
(1)DCPX	°	-	-	-	-	64	64	64	64	64
	L	56	56	56	56	standard	standard	standard	standard	standard
	A	-	-	-	-	64	64	64	64	64
	E	56	56	57	57	standard	standard	standard	standard	standard
(1) DCPX (version with high static pressure fan)	°	-	-	-	-	64	64	64	64	64
	L	60	60	60	61	standard	standard	standard	standard	standard
	A	-	-	-	-	64	64	64	64	65
	E	61	61	61	61	standard	standard	standard	standard	standard
DRE	All	281	301	331	351	501	551	601	651	701
GP	° - L	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
	A - E	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)
RIF	All	50	50	50	51	52	52	53	53	53
PRM1	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
TP3	All	✔	✔	✔	✔	standard	standard	standard	standard	standard

Note:
Sizes 280,300,330,350 are only available in versions L - E.

(1) Accessory DCPX includes: DCPX + TP3

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 configurator:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15 16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
028, 030, 033, 035, 050, 055, 060, 065, 070
Compressor:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
Y - Thermostatic expansion valve for low liquid temperature down to -6 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
° - Cooling only
C - Condensing unit
Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery
Version:
° - Compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Fan:
° - Standard
M - High static pressure (sizes 280-700)
J - Inverter (sizes 500-700)
Power supply:
° - 400V 3N~ 50Hz with circuit breakers
1 - 230V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– options D - T - C are not compatible with option Y
– the standard options are shown by the symbol °
– size 350 is not available with 500V 3~ 50Hz power supply
Example of configuration code: NRL0350°°°°°°°00
This is an NRL unit of size 350, with standard thermostatic expansion valve, cooling only model, without heat recovery, compact version, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3N~ 50Hz, without pump or buffer tank.

Technical Data

Mod. NRL		Vers.	280	300	330	350	500	550	600	650	700
Cooling capacity	(kW)	°	-	-	-	-	97	103	126	137	156
		L	53	63	68	81	87	93	113	127	144
		A	-	-	-	-	98	104	129	143	163
		E	57	65	74	83	90	95	117	129	150
Total power input	(kW)	°	-	-	-	-	34,8	38,2	45,9	53,9	60,0
		L	20,3	22,6	26,1	28,4	38,5	42,5	50,9	57,6	64,8
		A	-	-	-	-	30,2	34,2	40,1	44,6	52,3
		E	16,8	19,4	21,8	25,1	33,1	36,7	44,3	51,6	56,6
Water flow rate	(l/h)	°	-	-	-	-	16680	17720	21670	23560	26830
		L	9120	10840	11700	13930	14960	16000	19440	21840	24770
		A	-	-	-	-	16860	17890	22190	24600	28040
		E	9800	11180	12730	14280	15480	16340	20120	22190	25800
Pressure drop	(kPa)	°	-	-	-	-	53	59	64	61	74
		L	51	46	54	55	43	48	51	52	63
		A	-	-	-	-	44	49	54	60	68
		E	43	39	35	42	37	41	44	49	58
EER	(W/W)	°	-	-	-	-	2,79	2,70	2,75	2,54	2,60
		L	2,61	2,79	2,61	2,85	2,26	2,19	2,22	2,20	2,22
		A	-	-	-	-	3,25	3,04	3,22	3,21	3,12
		E	3,39	3,35	3,39	3,31	2,72	2,59	2,64	2,50	2,65
ESEER	(W/W)	°	-	-	-	-	3,43	3,32	3,87	3,58	3,67
		L	3,16	3,37	3,15	3,45	3,40	3,30	3,83	3,56	3,65
		A	-	-	-	-	3,83	3,59	4,28	4,26	4,15
		E	3,94	3,89	3,94	3,84	3,78	3,55	4,15	4,13	4,02
Power supply			400V 3N~ 50Hz with thermomagnetic switches								
Total current input	(A)	°	-	-	-	-	63	67	81	88	100
		L	36	40	44	51	70	75	90	99	111
		A	-	-	-	-	55	60	71	77	90
		E	30	34	37	45	60	64	78	89	97
Maximum current (FLA)	(A)	All	46	53	58	63	76	81	100	112	122
Starting current (LRA)	(A)	All	155	184	190	200	214	220	232	243	261
Type of compressors		All	Scroll								
Compressors/circuits		°	-	-	-	-	3/2	3/2	4/2	4/2	4/2
		L	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2
		A	-	-	-	-	3/2	3/2	4/2	4/2	4/2
		E	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2
Type of fans			Axial								
Fan air flow rate	(m³/h)	°	-	-	-	-	34600	34600	34600	34600	33600
		L	14200	14200	14200	20200	28400	28700	27700	29400	28600
		A	-	-	-	-	34100	34100	32600	32600	50000
		E	22000	22000	27000	27000	21100	22200	21800	22800	32500
Number of fans	(n°)	°	-	-	-	-	2	2	2	2	2
		L	4	4	4	6	2	2	2	2	2
		A	-	-	-	-	2	2	2	2	3
		E	6	6	8	8	2	2	2	2	3
Evaporator		All	Plates								
Type of hydraulic connections		All	Victaulic								
Hydraulic connections	(Ø)	All	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
low-head pump Input power	(kW)	All	1,5	1,5	1,5	1,5	1,8	1,8	3,0	3,0	3,0
high-head pump Input power	(kW)	All	1,1	1,1	1,1	1,1	1,5	1,5	1,5	1,5	1,8
low-head pump Input current	(A)	All	2,7	2,7	2,7	2,7	3,6	3,6	3,6	3,6	5,0
high-head pump Input current	(A)	All	3,6	3,6	3,6	3,6	5,0	5,0	5,7	5,7	5,7
Useful pump head low-head cooling mode	(kPa)	°	-	-	-	-	123	111	91	83	91
		L	104	106	96	89	141	130	117	103	117
		A	-	-	-	-	127	117	94	76	78
		E	113	114	114	104	140	132	117	104	106
Useful pump head high-head cooling mode	(kPa)	°	-	-	-	-	161	150	184	178	134
		L	143	144	135	129	179	168	210	198	162
		A	-	-	-	-	166	156	188	172	140
		E	152	153	153	140	179	171	215	201	170
Buffer tank capacity		All	300	300	300	300	500	500	500	500	500
Sound power	db(A)	°	-	-	-	-	82	82	82	83	83
		L	73	73	74	75	77	77	77	78	78
		A	-	-	-	-	82	82	82	83	85
		E	74	74	75	76	74	74	74	75	77
♪Pressure power	db(A)	°	-	-	-	-	50	50	50	51	51
		L	41	41	42	43	45	45	45	46	46
		A	-	-	-	-	50	50	50	51	53
		E	42	42	43	44	42	42	42	43	45

Performance values refer to the following conditions:

Cooling:
- evaporating temperature 7 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

Sound power
Aermec determines sound power values in accordance with ISO 9614-2 as required for Eurovent certification.

♪ Sound pressure measured in free field conditions at distance of 10m and directivity factor = 2. In accordance with ISO 3744.
- Power supply voltage: 400 V

Technical Data Version "C"

Mod. NRL C	U.M.	Vers.	280	300	330	350	500	550	600	650	700
Cooling capacity	(kW)	°	-	-	-	-	100	106	130	141	161
		L	55	65	70	83	90	96	116	131	148
		A	-	-	-	-	101	107	133	147	168
		E	59	67	76	85	93	98	121	133	155
Total power input	(kW)	°	-	-	-	-	35,1	38,5	46,3	54,4	60,5
		L	20,5	22,8	26,3	28,7	38,8	42,9	51,4	58,1	65,4
		A	-	-	-	-	30,5	34,5	40,5	45,0	52,8
		E	17,0	19,6	22,0	25,3	33,4	37,0	44,7	52,1	57,1
EER	(W/W)	°	-	-	-	-	2,85	2,75	2,80	2,59	2,65
		L	2,67	2,85	2,66	2,91	2,31	2,23	2,27	2,25	2,27
		A	-	-	-	-	3,31	3,10	3,28	3,27	3,18
		E	3,46	3,42	3,47	3,38	2,78	2,64	2,70	2,55	2,71
Maximum current (FLA)	(A)	All	46	53	58	63	76	81	100	112	122
Starting current (LRA)	(A)	All	155	184	190	200	214	220	232	243	261
Input current	(A)	°	-	-	-	-	63,6	67,6	81,7	88,8	100,9
		L	36,3	40,4	44,4	51,5	60,8	75,2	90,7	99,9	112,0
		A	-	-	-	-	59,5	62,6	75,7	82,7	95,9
		E	35,3	39,4	43,4	49,4	70,5	64,9	78,9	89,9	97,9
Sound power	db(A)	°	-	-	-	-	82	82	82	83	83
		L	73	73	74	75	77	77	77	78	78
		A	-	-	-	-	82	82	82	83	85
		E	74	74	75	76	74	74	74	75	77
♪Sound pressure	db(A)	°					50	50	50	51	51
		L	41	41	42	43	45	45	45	46	46
		A					50	50	50	51	53
		E	42	42	43	44	42	42	42	43	45

Performance values refer to the following conditions:

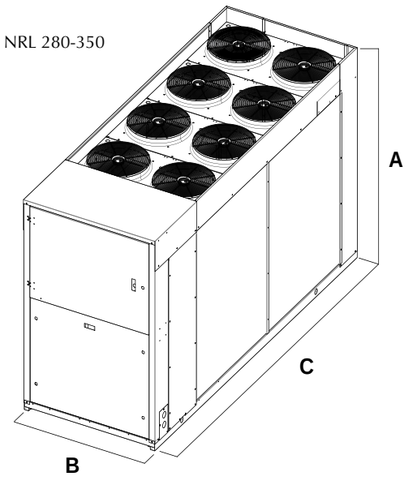
Cooling:
- evaporating temperature 5 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

Sound power:
Aermec determines sound power values in accordance with ISO 9614-2 as required for Eurovent certification.

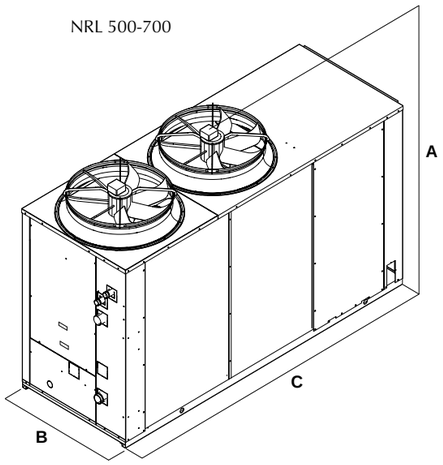
♪ Sound pressure measured in free field conditions at distance of 10m and directivity factor = 2. In accordance with ISO 3744.
- Power supply voltage: 400 V

Dimensions (mm)

NRL 280-350



NRL 500-700



Mod. NRL			Vers.	280	300	330	350	500	550	600	650	700
Height	(mm)	A	All	1606	1606	1606	1606	1875	1875	1875	1875	1875
Width	(mm)	B	All	1100	1100	1100	1100	1100	1100	1100	1100	1100
Length	(mm)	C	° - L	2450	2450	2450	2450	2950	2950	2950	2950	2950
			A - E	2450	2950	2950	2950	2950	2950	2950	2950	3950
Weight empty	(kg)		° - L	675	684	688	704	868	872	968	983	1091
			A - E	686	751	761	767	955	959	1142	1155	1323

Note:
Sizes 280,300,330,350 are only available in versions L - E.

Cod.: SNRLUY.05 / 1212

AERMEC

NRL

Air-cooled heat pumps with axial fans
Capacity from 58 kW to 171 kW

R410A

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- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**
- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **2 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 9 sizes
- Refrigerant R410A
- 2 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Extended operating limits in heat pump operation:
  - Maximum leaving water temperature 55° C
  - Maximum external air temperature 30° C (42° C with fan speed controller accessory DCPX)
- Cooling operation up to 46° C external air temperature
- Versions available:
  - H Standard compact heat pump
  - HL Low noise compact heat pump
  - HA High efficiency heat pump
  - HE High efficiency low noise heat pump
- Expansion valve (selected in unit configurator):
  - "°" standard thermostatic expansion valve
  - "X" electronic expansion valve
- Fan type (selected in unit configurator):
  - "°" Standard
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- Microprocessor control system:
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory)
  - Evaporating control in summer for heat pump operation (with DCPX accessory)
  - Intelligent defrost control on drop of pressure
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessories

- **AER485**: RS-485 interface for supervision systems with MODBUS protocol.
- **VT:** set of four anti-vibration mounts, to be fitted below the unit base.
- **DCPX:** Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation. It also allows a correct operation by heating with external temperatures above 30 ° C and up to 42 ° C.
- **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.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.**
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **DUALCHILLER**: Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **TRX1:** Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **PRM1:** FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.
- **TP3:** High pressure transducer linked to the controller generates a pre-alarm in the case of high operating pressure (only for sizes 280-350).

Accessory compatibility

Mod. NRL	Vers.	280	300	330	350	500	550	600	650	700
AER485	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
TRX1	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT (00-P1-P2-P3-P4)	H	-	-	-	-	13	13	13	13	13
	HL	17	17	17	17	13	13	13	13	13
	HA	-	-	-	-	13	13	13	13	22
	HE	17	17	17	17	13	13	13	13	22
VT (01-02-03-04-0506-07-08-09-10)	H	-	-	-	-	10	10	10	10	10
	HL	13	13	13	13	10	10	10	10	10
	HA	-	-	-	-	10	10	10	10	22
	HE	13	13	13	13	10	10	10	10	22
DCPX	H	-	-	-	-	64	64	64	64	64
	HL	58	58	58	58	standard	standard	standard	standard	standard
	HA	-	-	-	-	64	64	64	64	65
	HE	58	58	59	59	standard	standard	standard	standard	standard
DCPX vers. with high static pressure fans (*)	H	-	-	-	-	-	-	-	-	-
	HL	63	63	63	63	-	-	-	-	-
	HA	-	-	-	-	-	-	-	-	-
	HE	63	63	63	63	-	-	-	-	-
DRE	All	281	301	331	351	501	551	601	651	701
GP	H	-	-	-	-	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
	HL	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
	HA	-	-	-	-	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)
	HE	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)
RIF	All	50	50	50	51	52	52	53	53	53
PRM1	All	✔	✔	✔	✔	✔	✔	✔	✔	✔

(*) DCPX not necessary for units with high static pressure fans (sizes 500 to 700). Fans are already fitted with speed controller.

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15-16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
028, 030, 033, 035, 050, 055, 060, 065, 070
Compressor:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
H - Heat pump
Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery)
Version:
° - Standard compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Fan:
° - Standard
M - High static pressure (sizes 280-350)
J - Inverter (sizes 500-700)
Power supply:
° - 400V 3N~ 50Hz with circuit breakers
1 - 230V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– the standard options are shown by the symbol °
– the configurations XD and XT are not available (only for liquid temperatures below +4°C)
– size 350 is not available with 500V 3~ 50Hz power supply
Example of configuration code: **NRL0350°H°L°°°04**
This is an NRL unit of size 350, with standard thermostatic expansion valve, heat pump model, without heat recovery, compact low noise, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3N~ 50Hz, and without pump or buffer tank.

Technical Data

Mod. NRL	U.M.	Vers.	280	300	330	350	500	550	600	650	700
Cooling capacity	(kW)	H	-	-	-	-	90	95	115	134	145
		HL	51	61	66	73	83	90	110	124	140
		HA	-	-	-	-	94	100	122	138	150
		HE	53	62	69	77	90	95	114	128	143
Total power input	(kW)	H	-	-	-	-	36,4	40,5	49,1	53,3	62,9
		HL	20,1	22,5	26,2	31,0	39,7	42,9	51,8	58,3	65,6
		HA	-	-	-	-	30,4	33,6	41,0	47,8	51,3
		HE	17,9	20,0	23,0	26,6	33,1	36,4	45,0	52,7	57,8
Water flow rate	(l/h)	H	-	-	-	-	15480	16340	19780	23050	24940
		HL	8770	10490	11350	12560	14280	15480	18920	21330	24080
		HA	-	-	-	-	16170	17200	20980	23740	25800
		HE	9120	10660	11870	13240	15480	16340	19610	22020	24610
Pressure drop	(kPa)	H	-	-	-	-	46	50	53	58	64
		HL	47	43	51	45	39	45	49	50	60
		HA	-	-	-	-	33	36	36	43	49
		HE	20	27	23	27	30	32	31	37	45
EER	(W/W)	H	-	-	-	-	2,47	2,35	2,34	2,51	2,31
		HL	2,54	2,71	2,52	2,35	2,09	2,10	2,12	2,13	2,13
		HA	-	-	-	-	3,09	2,98	2,98	2,89	2,92
		HE	2,96	3,10	3,00	2,89	2,72	2,61	2,53	2,43	2,47
ESEER	(W/W)	H	-	-	-	-	3,43	3,32	3,87	3,58	3,67
		HL	3,16	3,37	3,15	3,45	3,40	3,30	3,83	3,56	3,65
		HA	-	-	-	-	3,83	3,59	4,28	4,26	4,15
		HE	3,94	3,89	3,94	3,84	3,78	3,55	4,15	4,13	4,02
Heating capacity	(kW)	H	-	-	-	-	99	106	129	150	165
		HL	58	68	75	82	99	106	129	150	165
		HA	-	-	-	-	103	110	135	152	171
		HE	59	69	76	86	103	110	135	152	171
Total power input	(kW)	H	-	-	-	-	33,2	36	43,1	48	55,1
		HL	18,6	21,3	24,3	27,8	33,2	36	43,1	48	55,1
		HA	-	-	-	-	31,2	33,8	40,1	44,9	52,1
		HE	17,3	20,3	22,5	25,8	31,2	33,8	40,1	44,9	52,1
Water flow rate	(l/h)	H	-	-	-	-	17030	18230	22190	25800	28380
		HL	9980	11700	12900	14100	17030	18230	22190	25800	28380
		HA	-	-	-	-	17720	18920	23220	26140	29410
		HE	10150	11870	13070	14790	17720	18920	23220	26140	29410
Pressure drop	(kPa)	H	-	-	-	-	55	62	67	73	83
		HL	61,1	53,6	65,6	56,4	55	62	67	73	83
		HA	-	-	-	-	40	44	44	52	64
		HE	24,8	33,5	27,9	33,7	40	44	44	52	64
COP	(W/W)	H	-	-	-	-	2,98	2,94	2,99	3,13	2,99
		HL	3,12	3,19	3,09	2,95	2,98	2,94	2,99	3,13	2,99
		HA	-	-	-	-	3,30	3,25	3,37	3,39	3,28
		HE	3,41	3,40	3,38	3,33	3,30	3,25	3,37	3,39	3,28
Power supply		All	400V 3N~ 50Hz with circuit breakers								
Total current input	(A)	H	-	-	-	-	66	71	87	92	108
		HL	33	38	41	50	72	75	91	100	113
		HA	-	-	-	-	55	59	72	82	88
		HE	31	36	38	46	60	64	79	91	99
Maximum current (FLA)	(A)	All	46	53	58	63	76	81	100	112	122
Starting current (LRA)	(A)	All	155	184	190	200	214	220	232	243	261
Type of compressors		All	Scroll								
Compressors/circuits		H	-	-	-	-	3/2	3/2	4/2	4/2	4/2
		HL	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2
		HA	-	-	-	-	3/2	3/2	4/2	4/2	4/2
		HE	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2
Type of fans		All	Axial								
Fan air flow rate	(m³/h)	H	-	-	-	-	39400	39400	39400	37500	37500
		HL	14000	20000	20000	20000	28400	28700	28700	27400	28100
		HA	-	-	-	-	37000	37000	36500	36500	58000
		HE	20000	26000	26000	26000	20200	21100	21400	22400	31900
Number of fans	(n°)	H	-	-	-	-	2	2	2	2	2
		HL	4	6	6	6	2	2	2	2	2
		HA	-	-	-	-	2	2	2	2	3
		HE	6	8	8	8	2	2	2	2	3
Evaporator		All	Plates								
Type of hydraulic connection		All	Victaulic								
Hydraulic connections	(Ø)	All	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

Mod. NRL	U.M.	Vers.	280	300	330	350	500	550	600	650	700
Input power low-head pump	(kW)	All	1,1	1,1	1,1	1,1	1,5	1,5	1,5	1,5	1,9
Input power high-head pump	(kW)	All	1,5	1,5	1,5	1,5	1,9	1,9	3,0	3,0	3,0
Useful pump head low-head cooling mode	(kPa)	H	-	-	-	-	136	127	113	89	115
		HL	108	110	100	95	148	136	123	109	125
		HA	-	-	-	-	141	133	124	95	113
		HE	135	126	128	120	147	140	135	114	125
Useful pump head high-head cooling mode	(kPa)	H	-	-	-	-	174	165	206	184	160
		HL	147	148	139	135	185	174	216	204	171
		HA	-	-	-	-	181	173	211	181	177
		HE	175	165	166	159	186	180	223	200	192
Buffer tank capacity	(l)	All	300	300	300	300	500	500	500	500	500
Sound power	db(A)	H	-	-	-	-	82	82	82	83	83
		HL	73	74	74	75	77	77	77	78	78
		HA	-	-	-	-	82	82	82	83	85
		HE	74	75	75	76	74	74	74	75	77
♪ Sound pressure	db(A)	H	-	-	-	-	50	50	50	51	51
		HL	41	42	42	43	45	45	45	46	46
		HA	-	-	-	-	50	50	50	51	53
		HE	42	43	43	44	42	42	42	43	45

Performance values refer to the following conditions:

Cooling
- leaving water temperature 7 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

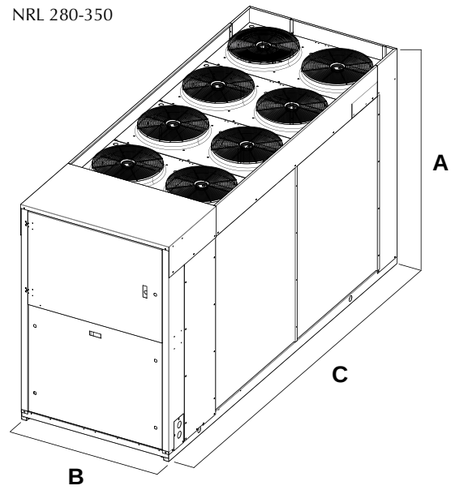
Heating
- leaving water temperature 45 °C;
- external air temperature 7 °C B.S. 6 °C B.U.;
- Δt = 5 °C.

Sound power
Aermec determines sound power values in accordance with ISO 9614-2 as required for Eurovent certification.

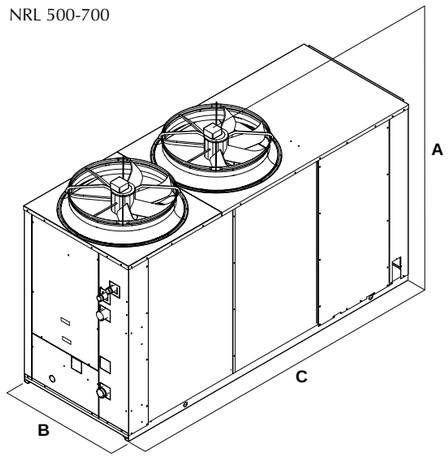
♪ **Sound pressure**
Sound pressure measured in free field conditions, in cooling mode, at distance of 10m and directivity factor = 2. In accordance with ISO 3744
- Power supply voltage: 400 V

Dimensions (mm)

NRL 280-350



NRL 500-700



Mod. NRL	U.M.	Vers.	280	300	330	350	500	550	600	650	700
Height A	(mm)	All	1606	1606	1606	1606	1875	1875	1875	1875	1875
Width B	(mm)	All	1100	1100	1100	1100	1100	1100	1100	1100	1100
Length C	(mm)	H - HL	2450	2450	2450	2450	2950	2950	2950	2950	2950
		HA - HE	2450	2950	2950	2950	2950	2950	2950	2950	3950
Weight empty	kg	H - HL	713	724	731	740	913	917	1016	1130	1142
		HA - HE	730	795	805	811	1099	1103	1204	1212	1390

Note:
Sizes 280,300,330,350 are only available in versions HL - HE.

Cod.: SNRLHUY.05 / 1212

NRL

Air cooled chillers with axial fans
Cooling capacity from 174 kW to 469 kW

R410A

Aermec
participate in the EUROVENT program:
LCP/A/P/C.
the products are present on the site
www .eurovent-certification. com



- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**

- **2 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND TANK OPTION**

Characteristics

- Available in 9 sizes
- Refrigerant R410A
- 2 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Operating limits in cooling up to 46 °C ambient
  - Maximum leaving water temperature 18 °C
- Versions available:
  - **°** Compact cooling only
  - **L** Compact low noise cooling only
  - **A** High efficiency cooling only
  - **E** **High efficiency low noise cooling only**
  - **C** Condensing unit
- Expansion valve (selected in unit configurator):
  - (°) standard thermostatic expansion valve
  - (Y) thermostatic expansion valve for low liquid temperature down to -6 °C
  - (X) electronic expansion valve, also for low liquid temperature (down to -6 °C)
- Fan unit (selected in unit configurator):
  - "°"Standard
  - "M" High static pressure
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- 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)
  - Automatic rotation of compressors and pumps based on operating hours (manual rotation sizes 1400 to 1800)
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessori

- **AER485**: RS-485 interface for supervision systems with MODBUS protocol.
- **AVX**: spring anti-vibration mounts Select the AVX model from the compatibility table.
- **DCPX**: Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation.
- **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.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- 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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **DUALCHILLER**: Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **TRX1**: Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **VT:** anti-vibration mounts, to be fitted below the unit base.
- **PRM1 and PRM2:** FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.

Accessory compatibility

Mod. NRL	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
AER485	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
TRX1	Tutte	✔	✔	✔	✔	✔	✔	✔	✔	✔
AVX	Tutte	-	✔	✔	✔	✔	✔	✔	✔	✔
VT	Tutte	23	-	-	-	-	-	-	-	-
DCPX	°	64	64	64	65	65	66	66	67	67
	L	standard	standard	di standard	standard	standard	standard	standard	standard	standard
	A	64	66	66	66	67	67	67	68	68
	E	standard	standard	di standard	standard	standard	standard	standard	standard	standard
DCPX "M" vers. con ventilatori maggiorati	°	65	65	65	65	65	66	66	68	68
	L	standard	standard	di standard	standard	standard	standard	standard	standard	standard
	A	65	66	66	66	68	68	68	68	68
	E	standard	standard	di standard	standard	standard	standard	standard	standard	standard
DRE	standard	751	801	901	1001	1251	1401	1501	1651	1801
GP	° - L	10 (x3)	10 (x3)	10 (x3)	10 (x4)	10 (x4)	350	350	350	350
	A - E	10 (x3)	260	260	260	350	350	350	500	500
RIF	° - L	53	87	89	91	91	93	94	94	94
	A - E	53	88	90	92	92	93	94	94	94
PRM1/PRM2	standard	✔	✔	✔	✔	✔	✔	✔	✔	✔

NOTE: For the selection of AVX refer to the technical manual

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15 16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
075, 080, 090, 100, 125, 140, 150, 165, 180
Compressors:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
Y - Thermostatic expansion valve for low liquid temperature down to -6 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
° - Cooling only
C - Condensing unit
Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery (not available with buffer tank)
Version:
° - Compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Fan:
° - Standard
M - High static pressure
J - Inverter
Power supply:
° - 400V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– options D - T - C are not compatible with option Y
– the standard options are shown by the symbol °
– size 750 is not available with 500V 3~ 50Hz power supply
Example of configuration code: NRL0900°°°°°°°00
This is an NRL unit of size 900, with standard thermostatic expansion valve, cooling only model, without heat recovery, compact version, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3~ 50Hz, without pump or buffer tank.

Technical Data

Mod. NRL	U.M.	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity	(kW)	°	190	211	231	257	303	338	375	412	449
		L	174	190	210	235	271	302	336	366	393
		A	195	218	242	271	322	357	399	437	469
		E	180	203	224	250	298	329	367	409	436
Total power input	(kW)	°	69	78	92	104	121	142	161	175	187
		L	75	88	101	113	134	157	177	192	208
		A	62	69	81	93	106	124	142	154	167
		E	68	76	88	101	115	134	154	165	179
Water flow rate	(l/h)	°	32680	36290	39730	44200	52120	58140	64500	70860	77230
		L	29930	32680	36120	40420	46610	51940	57790	62950	67600
		A	33540	37500	41620	46610	55380	61400	68630	75160	80670
		E	30960	34920	38530	43000	51260	56590	63120	70350	74990
Pressure drop	(kPa)	°	86	66	68	73	80	73	79	59	59
		L	72	55	57	61	65	59	64	48	46
		A	88	66	70	70	73	78	61	61	62
		E	75	58	61	61	63	67	52	54	54
EER	(W/W)	°	2,75	2,71	2,51	2,47	2,50	2,38	2,33	2,35	2,40
		L	2,32	2,16	2,08	2,08	2,02	1,92	1,90	1,91	1,89
		A	3,15	3,16	2,99	2,91	3,04	2,88	2,81	2,84	2,81
		E	2,65	2,67	2,55	2,48	2,59	2,46	2,38	2,48	2,44
ESEER	(W/W)	°	3,87	4,19	3,97	3,98	3,96	3,76	3,68	3,72	3,79
		L	3,85	4,10	3,95	3,95	3,84	3,65	3,61	3,62	3,59
		A	4,19	4,39	4,27	4,17	4,34	4,12	4,02	4,06	4,02
		E	4,05	4,27	4,20	4,08	4,28	4,05	3,93	4,02	4,02
Power supply							400V-3-50Hz (*)				
Total input current	(A)	°	122	142	166	189	208	249	286	305	319
		L	113	153	177	200	226	269	308	328	348
		A	113	136	158	180	196	235	273	289	304
		E	109	145	169	192	211	251	292	306	324
Maximum current (FLA)	(A)	°-L	144	170	192	217	261	290	319	358	391
		A-E	144	173	195	217	267	296	325	365	398
Starting current (LRA)	(A)	°-L	320	345	401	426	529	499	528	626	659
		A-E	320	348	404	426	535	505	534	633	666
Type of compressors		All					Scroll				
Compressors/circuits		°-L	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2
		A-E	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2
Type of fans		All					Axial				
Fan air flow rate	(m^3/h)	°	51400	54900	54150	75800	73200	77000	76000	108300	106200
		L	42700	38430	40575	53060	51240	57700	60800	75810	74340
		A	49000	72800	71500	70200	106200	104100	102000	125800	122000
		E	35300	50960	51805	52650	74340	75420	76500	91110	91500
Number of fans	(n°)	°-L	3	3	3	4	4	4	4	6	6
		A-E	3	4	4	4	6	6	6	8	8
Evaporator		All					Plate				
Type of hydraulic connections		All					Victaulic				
Hydraulic connections (Ø)		All	2"1/2	4"	4"	4"	4"	4"	4"	4"	4"
Input power low-head pump	(kW)	All	3,0	3,4	3,4	3,4	4,6	4,6	5,9	5,9	5,9
Input power high-head pump	(kW)	All	5,5	5,7	5,7	5,7	8,3	8,3	8,3	10,5	10,5
Input current low-head pump	(A)	All	6,2	5,8	5,8	5,8	7,8	7,8	10,0	10,0	10,0
Input current high-head pump	(A)	All	11,0	9,7	9,7	9,7	14,1	14,1	14,1	17,8	17,8
Useful pump head low-head	(kPa)	°	81	100	92	91	111	102	88	109	99
		L	92	120	112	111	139	133	116	134	130
		A	71	109	95	85	103	82	106	94	82
		E	82	122	111	104	125	108	125	111	102
Useful pump head high-head	(kPa)	°	201	219	211	208	256	246	220	246	237
		L	212	241	232	229	286	279	258	271	267
		A	191	227	213	200	247	222	226	233	221
		E	202	237	226	216	264	246	250	245	236
Buffer tank capacity	(l)	All	700	700	700	700	700	700	700	700	700

(*) The power supply for size 750 is: 400V-3N-50Hz.

Cooling:
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

Mod. NRL	U.M.	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Sound power	dB(A)	°	85,0	86,0	86,0	90,0	91,0	90,5	90,5	92,0	92,0
		L	80,0	83,0	83,0	87,0	88,0	87,5	87,5	89,0	89,0
		A	85,0	88,0	88,0	88,0	91,0	90,5	90,5	91,5	93,5
		E	77,0	83,0	83,0	83,0	86,0	85,5	85,0	86,5	88,5
♪ Sound pressure	dB(A)	°	53,0	54,0	54,0	58,0	59,0	58,5	58,5	60,0	60,0
		L	48,0	51,0	51,0	55,0	56,0	55,5	55,5	57,0	57,0
		A	53,0	56,0	56,0	56,0	59,0	58,5	58,5	59,5	61,5
		E	45,0	51,0	51,0	51,0	54,0	53,5	53,0	54,5	56,5

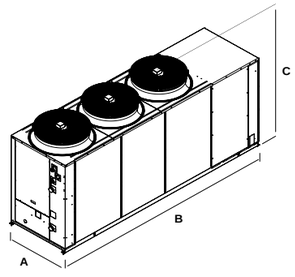
Sound power:
Aermec determines sound power values in accordance with ISO 9614-2 as required for Eurovent certification.

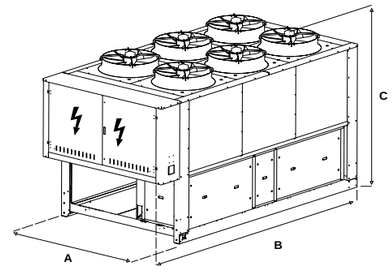
♪ Sound pressure measured in free field conditions at distance of 10m and directivity factor = 2. In accordance with ISO 3744.
- Power supply voltage: 400 V

Technical Data " C Version "

Mod. NRL C		Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity	(kW)	°	196	220	241	269	316	352	391	430	469
		L	179	198	219	245	283	315	351	383	410
		A	201	227	252	282	335	372	415	463	497
		E	185	211	233	260	311	343	382	426	454
Total power input	(kW)	°	70	81	95	108	125	147	166	182	194
		L	76	91	105	117	139	163	183	199	216
		A	62	71	83	95	109	127	145	152	165
		E	69	78	91	103	118	138	158	169	184
EER	(W/W)	°	2,8	2,71	2,53	2,48	2,52	2,39	2,35	2,37	2,42
		L	2,37	2,19	2,09	2,09	2,03	1,94	1,91	1,92	1,9
		A	3,22	3,19	3,03	2,97	3,08	2,92	2,86	3,05	3,02
		E	2,7	2,71	2,57	2,52	2,64	2,48	2,42	2,52	2,47
Maximum current (FLA)	(A)	°-L	144	170	192	217	261	290	319	358	391
		A-E	144	173	195	217	267	296	325	365	398
Starting current (LRA)	(A)	°-L	320	345	401	426	529	499	528	626	659
		A-E	320	348	404	426	535	505	534	633	666
Input current	(A)	°	123	147	172	196	215	258	297	316	331
		L	134	158	183	207	234	279	319	340	361
		A	110	140	163	185	202	241	281	289	302
		E	121	149	173	197	216	258	299	315	333
Sound power	db(A)	°	85	86	86	90	91	90,5	90,5	92	92
		L	80	83	83	87	88	87,5	87,5	89	89
		A	85	88	88	88	91	90,5	90,5	91,5	93,5
		E	77	83	83	83	86	85,5	85	86,5	88,5
♪ Sound pressure	db(A)	°	53	54	54	58	59	58,5	58,5	60	60
		L	48	51	51	55	56	55,5	55,5	57	57
		A	53	56	56	56	59	58,5	58,5	59,5	61,5
		E	45	51	51	51	54	53,5	53	54,5	56,5

Dimensions (mm)





Mod. NRL			Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Height	(mm)	C	° - L	1975	1975	1975	1975	1975	2450	2450	2450	2450
			A - E	1975	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	A	° - L	1500	1500	1500	1500	1500	2200	2200	2200	2200
			A - E	1500	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	B	° - L	4350	4355	4355	5355	5355	4250	4250	4250	4250
			A - E	4350	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	(kg)		°	1382	1730	1860	2015	2135	2765	2960	3055	3160
			L	1382	1740	1870	2025	2145	2775	2970	3065	3170
			A	1663	2120	2265	2410	2710	2910	3125	3620	3735
			E	1663	2135	2280	2425	2725	2925	3140	3635	3750

Code: SNRLLSUY.05 /0212

NRL

Air cooled heat pumps with axial fans
Capacity from 165 to 523 kW

R410A



Aermec adheres to the EUROVENT Certification programme up to 600kW cooling. The products concerned appear in the EUROVENT Certified products guide.

- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**
- **2 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 9 sizes
- Refrigerant R410A
- 2 refrigerant circuits
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Extended operating limits in heat pump operation:
  - Maximum leaving water temperature 55° C
  - Maximum external air temperature 30° C (42° C with fan speed controller accessory DCPX)
- Versions available:
  - H Standard compact heat pump
  - HL Low noise compact heat pump
  - HA High efficiency heat pump
  - HE High efficiency low noise heat pump
- Expansion valve (selected in unit configurator):
  - "°" standard thermostatic expansion valve
  - "X" electronic expansion valve, also for low fluid temperature (down to -6 °C)
- Fan type (selected in unit configurator):
  - "°" Standard
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- Microprocessor control system:
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory)
  - Evaporating control in summer for heat pump operation (with DCPX accessory)
  - Automatic rotation of compressors and pumps based on operating hours (manual rotation sizes 1400 to 1800)
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessories

- **AER485**: RS-485 interface for supervision systems with MODBUS protocol.
- **AVX**: spring anti-vibration mounts Select the AVX model from the compatibility table.
- **DCPX**: Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation. Also permits correct unit operation in heating mode with external air temperatures above 30 °C and up to 42 °C.
- **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.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **DUALCHILLER**: Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **TRX1**: Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **VT:** anti-vibration mounts, to be fitted below the unit base.
- **PRM1 and PRM2**: FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.

Accessory Compatibility

Mod. NRL	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
AER485	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
TRX1	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AVX	All	-	✔	✔	✔	✔	✔	✔	✔	✔
VT	All	23	-	-	-	-	-	-	-	-
	H	64	65	65	65	65	66	66	68	68
DCPX	HL	standard	standard	standard	standard	standard	standard	standard	standard	standard
	HA	65	66	66	66	68	68	68	68	68
	HE	standard	standard	standard	standard	standard	standard	standard	standard	standard
DCPX vers. with fans "J"	All	NOTE: DCPX not necessary. The fans are already fitted with speed controller.								
DRE	All	751	801	901	1001	1251	1401	1501	1651	1801
GP	H - HL	10 (x3)	10 (x3)	10 (x3)	10 (x4)	10 (x4)	350	350	350	350
	HA - HE	10 (x3)	260	260	260	350	350	350	500	500
RIF	H -HL	53	87	89	91	91	93	94	94	94
	HA -HE	53	88	90	92	92	93	94	94	94
PRM1/PRM2	All	✔	✔	✔	✔	✔	✔	✔	✔	✔

NOTE: For the selection of AVX refer to the technical manual

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15 16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
075, 080, 090, 100, 125, 140, 150, 165, 180
Compressors:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
H - Heat pump
Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery (not available with buffer tank)
Version:
° - Standard compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Fan:
° - Standard
J - Inverter
Power supply:
° - 400V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– the standard options are shown by the symbol °
– the configurations XD and XT are not available (only for liquid temperatures below +4°C)
– size 750 is not available with 500V 3~ 50Hz power supply
Example of configuration code: **NRL1000°H°E°°°04**
This is an NRL unit of size 1000, with standard thermostatic expansion valve, heat pump model, without heat recovery, high efficiency, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3~ 50Hz, and single and standby high head pump and buffer tank.

Technical data

Mod. NRL		Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity	(kW)	H	176	201	222	262	300	333	367	423	454
		HL	165	184	200	237	265	302	332	373	397
		HA	180	211	239	261	315	351	388	437	472
		HE	175	194	213	231	284	319	355	398	426
Total power input	(kW)	H	70	81	94	101	120	140	159	166	179
		HL	77	90	105	112	136	154	174	187	204
		HA	63	73	82	94	109	126	143	151	162
		HE	69	81	94	107	122	140	158	168	182
Water flow rate	(l/h)	H	30270	34570	38180	45060	51600	57280	63120	72760	78090
		HL	28380	31650	34400	40760	45580	51940	57100	64160	68280
		HA	30960	36290	41110	44890	54180	60370	66740	75160	81180
		HE	30100	33370	36640	39730	48850	54870	61060	68460	73270
Pressure drop	(kPa)	H	74	46	45	50	57	40	40	47	46
		HL	65	39	37	41	45	33	34	37	36
		HA	64	55	56	54	61	48	49	54	54
		HE	60	47	45	43	51	40	41	45	44
EER	(W/W)	H	2,51	2,48	2,36	2,59	2,5	2,38	2,31	2,55	2,54
		HL	2,13	2,04	1,9	2,12	1,95	1,96	1,91	1,99	1,95
		HA	2,85	2,89	2,91	2,78	2,89	2,79	2,71	2,89	2,91
		HE	2,54	2,4	2,27	2,16	2,33	2,28	2,25	2,37	2,34
ESEER	(W/W)	H	3,87	3,98	3,77	3,78	3,76	3,57	3,5	3,53	3,6
		HL	3,85	3,9	3,75	3,75	3,65	3,47	3,43	3,44	3,41
		HA	4,19	4,17	4,06	3,96	4,13	3,91	3,82	3,85	3,82
		HE	4,05	4,06	3,99	3,88	4,06	3,85	3,74	3,81	3,82
Heating capacity	(kW)	H - HL	201	227	256	293	340	384	427	468	503
		HA - HE	204	233	263	293	344	388	433	484	523
Total power input	(kW)	H - HL	65	75	85	96	111	126	141	155	166
		HA - HE	61	74	83	93	110	124	139	153	163
Water flow rate	(l/h)	H - HL	34570	39040	44030	50400	58480	66050	73440	80500	86520
		HA - HE	35090	40080	45240	50400	59170	66740	74480	83250	89960
Pressure drop	(kPa)	H - HL	96	61	62	65	78	54	55	59	58
		HA - HE	82	68	69	69	76	58	60	66	66
COP	(W/W)	H - HL	3,08	3,03	3,01	3,05	3,06	3,05	3,03	3,02	3,03
		HA - HE	3,33	3,15	3,17	3,15	3,13	3,13	3,12	3,16	3,21
Power supply		All	400V-3-50Hz (*)								
Total input current	(A)	H - HL	113	136	156	179	193	227	261	279	290
		HA - HE	109	138	157	177	197	231	265	282	293
Maximum current (FLA)	(A)	H - HL	144	173	195	221	265	294	323	365	398
		HA - HE	144	177	199	221	274	303	332	373	406
Starting current (LRA)	(A)	H - HL	320	348	404	430	533	503	532	633	666
		HA - HE	320	352	408	430	542	512	541	641	674
Type of compressors		All	Scroll								
Compressors/circuits	(n°)	All	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2
Type of fans		All	Axial								
Fan air flow rate	(m^3/h)	H	50200	64500	63750	85600	80800	87400	86800	124200	122400
		HL	41700	45200	44600	59900	56600	65500	69400	86900	85700
		HA	48000	85600	84600	83600	126000	124200	122400	168000	165600
		HE	34600	59920	59220	60610	88200	90000	91800	117600	115920
Number of fans	(n°)	H	3	3	3	4	4	4	4	6	6
		HL	3	3	3	4	4	4	4	6	6
		HA	3	4	4	4	6	6	6	8	8
		HE	3	4	4	4	6	6	6	8	8
Evaporator		All	Plates								
Type of hydraulic connection		All	Victaulic								
Hydraulic connections	(Ø)	H - HL	3"	3"	3"	3"	3"	4"	4"	4"	4"
		HA - HE	3"	3"	3"	3"	4"	4"	4"	4"	4"
Input power low-head pump	(kW)	All	3,0	3,4	3,4	3,4	4,6	4,6	5,9	5,9	5,9
Input power high-head pump	(kW)	All	5,5	5,7	5,7	5,7	8,3	8,3	8,3	10,5	10,5
Input current low-head pump	(A)	All	6,2	5,8	5,8	5,8	7,8	7,8	10	10	10
Input current high-head pump	(A)	All	11	9,7	9,7	9,7	14,1	14,1	14,1	17,8	17,8
Useful pump head low-head cooling mode	(kPa)	H	97	125	120	118	142	149	142	122	115
		HL	109	138	135	134	165	167	157	145	141
		HA	104	123	114	111	128	128	125	106	95
		HE	110	135	132	131	150	149	141	126	119
Useful pump head high-head cooling mode	(kPa)	H	211	243	237	233	285	290	274	257	251
		HL	235	257	253	250	309	310	297	280	276
		HA	224	240	230	225	269	266	246	241	232
		HE	231	252	249	247	293	289	272	261	255
Buffer tank capacity	(l)	All	700	700	700	700	700	700	700	700	700

(*) For size 075 has the power: 400V-3N-50Hz.

Mod. NRL	U.M.	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
♪ Sound power	db(A)	H	85,0	88,5	88,5	90,5	93,5	91,0	90,5	92,0	94,0
		HL	80,0	85,5	85,5	87,5	90,5	88,0	87,5	89,0	91,0
		HA	85,0	88,5	88,5	88,5	91,5	91,0	91,5	92,0	94,0
		HE	77,0	83,0	83,0	83,5	86,0	85,5	85,0	86,5	88,5
♪ Sound pressure	db(A)	H	53,0	56,5	56,5	58,5	61,5	59,0	58,5	60,0	62,0
		HL	48,0	53,5	53,5	55,5	58,5	56,0	55,5	57,0	59,0
		HA	53,0	56,5	56,5	56,5	59,5	59,0	58,5	60,0	62,0
		HE	45,0	51,0	51,0	51,0	54,0	53,5	53,0	54,5	56,5

Cooling
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 °C.

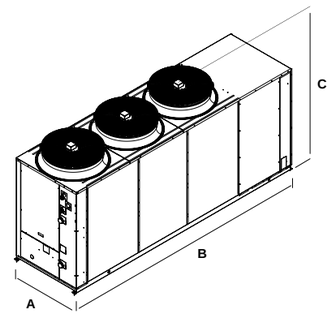
Heating
- leaving water temperature 45 °C
- external air temperature 7 °C db / 6 °C wb
- Δt = 5 °C.

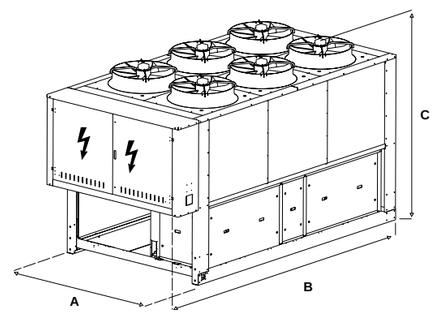
♪ Sound power:
Aermec determines sound power values in accordance with ISO 9614-2 as required for Eurovent certification.

♪ Sound pressure measured in free field conditions, in cooling mode, at distance of 10m and directivity factor = 2. In accordance with the ISO 3744.

Power supply voltage: 400 V

Dimensions (mm)





Mod. NRL	U.M.		Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Height	(mm)	C	H - HL	1975	1975	1975	1975	1975	2450	2450	2450	2450
			HA - HE	1975	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	A	H - HL	1500	1500	1500	1500	1500	2200	2200	2200	2200
			HA -HE	1500	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	B	H - HL	4350	4355	4355	5355	5355	4250	4250	4250	4250
			HA - HE	4350	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	(kg)		H	1487	1800	1940	2170	2320	2930	3140	3220	3330
			HL	1487	1800	1950	2180	2320	2940	3150	3230	3340
			HA	1748	2150	2300	2460	2750	2990	3190	3680	3800
			HE	1748	2160	2310	2470	2760	3000	3200	3690	3810

Warning: the weights refer to versions without pump or buffer tank.

Cod.: SNRLLSHUY.08 / 1201

AERMEC

NRL

Air cooled chiller with axial fans
Cooling capacity from 500 kW to 938 kW

R410A

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec
participate in the EUROVENT program:LCP/A/P/C, up to 600 kW the products are present on the site www .eurovent-certification. com
* Not certified model



- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**
- **4 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 7 sizes
- Refrigerant R410A
- 4 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Operating limits in cooling up to 46 °C ambient
  - Maximum leaving water temperature 18 °C
- Versions available:
  - **°** Compact cooling only
  - **L** Compact low noise cooling only
  - **A** High efficiency cooling only
  - **E** **High efficiency low noise cooling only**
  - **C** Condensing unit
- Expansion valve (selected in unit configurator):
  - (°) standard thermostatic expansion valve
  - (Y) thermostatic expansion valve for low liquid temperature down to -6 °C
  - (X) electronic expansion valve
- Fan unit (selected in unit configurator):
  - "°"Standard
  - "M" High static pressure
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- 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)
  - Automatic rotation of compressors and pumps based on operating hours (for all sizes)
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AVX**: spring anti-vibration mounts Select the AVX model from the compatibility table.
- **DCPX**: Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation. It also allows a correct operation by heating with external temperatures above 30 ° C and up to 42 ° C.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.
- **TRX1**: Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **PRM1-PRM2**: FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.

Accessory compatibility

Mod. NRL	Vers.	2000	2250	2500	2800	3000	3300	3600
AER485P1	All	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔
TRX1	All	✔	✔	✔	✔	✔	✔	✔
DCPX	°	-	-	-	78	78	81	81
	L	standard	standard	standard	standard	standard	standard	standard
	A	78	79	81	81	81	82	82
	E	standard	standard	standard	standard	standard	standard	standard
DCPX "M" with high static pressure fans	°	-	-	-	78	78	82	82
	L	standard	standard	standard	standard	standard	standard	standard
	A	78	80	82	82	82	82	82
	E	standard	standard	standard	standard	standard	standard	standard
GP	° - L	-	-	-	350 x 2	350 x 2	350 x 2	350 x 2
	A - E	260 x 2	260 350	350 x 2	350 x 2	350 x 2	500 x 2	500 x 2
RIF	° - L	-	-	-	RIFNRL2800	RIFNRL3000	RIFNRL3300	RIFNRL3600
	A - E	RIFNRL2000	RIFNRL2250	RIFNRL2500	RIFNRL2800	RIFNRL3000	RIFNRL3300	RIFNRL3600
PRM1/PRM2	All	✔	✔	✔	✔	✔	✔	✔
AVX (00)	° - L	-	-	-	785	791	791	791
	A - E	767	773	779	785	791	798	798
AVX (01-02-03-04)	° - L	-	-	-	786	792	792	792
	A - E	768	774	780	786	792	799	799
AVX (P1-P2-P3-P4)	° - L	-	-	-	787	793	793	793
	A - E	769	775	781	787	793	800	800

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.

Configuration fields:

1 2 3 — Code
4 5 6 — Size
7 — Compressor
8 — Expansion valve
9 — Model
10 — Heat recovery
11 — Version
12 — Coil
13 — Fan
14 — Power supply
15-16 — Integrated hydronic module

Code:
NRL
Size:
200, 225, 250, 280, 300, 330, 360
Compressors:
0 - Compressori standard ad R410A
Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
Y - Thermostatic expansion valve for low liquid temperature down to -6 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
° - Cooling only
C - Condensing unit
Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery (not available with buffer tank)
Version:
° - Compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Fan:
° - Standard
M - High static pressure
J - Inverter
Power supply:
° - 400V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– options D - T - C are not compatible with option Y
– the standard options are shown by the symbol °
Example of configuration code: NRL2000°°°°°°°00
This is an NRL unit of size 2000, with standard thermostatic expansion valve, cooling only model, without heat recovery, compact version, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3~ 50Hz, without pump or buffer tank.

Technical Data

Mod. NRL	U.M.	Vers.	2000	2250	*2500	*2800	*3000	*3300	*3600
Cooling capacity	(kW)	°	-	-	-	676	750	824	898
		L	-	-	-	604	672	733	786
		A	542	593	*644	714	798	874	938
		E	500	548	596	658	734	818	872
Total power input	(kW)	°	-	-	-	284	322	350	374
		L	-	-	-	314	354	384	416
		A	186	199	212	248	284	308	334
		E	202	216	230	268	308	330	358
Water flow rate	(l/h)	°	-	-	-	116270	129000	141730	154460
		L	-	-	-	103890	115580	125900	135190
		A	93220	102000	110770	122810	137260	150330	161340
		E	86000	94260	102510	113180	126250	140700	149980
Pressure drops	(kPa)	°	-	-	-	73,0	78,6	59,5	58,8
		L	-	-	-	59,1	63,8	47,9	45,9
		A	70,4	72,6	72,6	77,8	60,8	60,8	61,7
		E	60,7	63,0	63,0	66,9	52,1	53,7	53,9
EER	(W/W)	°	-	-	-	2,38	2,33	2,35	2,40
		L	-	-	-	1,92	1,90	1,90	1,89
		A	2,91	2,98	3,04	2,88	2,81	2,84	2,81
		E	2,48	2,54	2,59	2,46	2,38	2,48	2,44
ESEER	(W/W)	°	-	-	-	3,76	3,68	3,72	3,79
		L	-	-	-	3,65	3,61	3,62	3,59
		A	4,17	4,25	4,34	4,12	4,02	4,06	4,02
		E	4,08	4,18	4,28	4,05	3,93	4,02	4,02
Supply	(A)	All	400V-3-50Hz						
Type of fan			Axial						
Total air flow rate	(m^3/h)	°	-	-	-	154000	152000	216600	212400
		L	-	-	-	115400	121600	151620	148680
		A	140400	176400	212400	208200	204000	266000	244000
		E	105300	126990	148680	150840	153000	192300	183000
Operating current	(A)	°	-	-	-	498	572	610	638
		L	-	-	-	538	616	656	696
		A	361	377	393	470	547	563	589
		E	384	403	421	502	583	613	649
Maximum current (FLA)	(A)	° - L	-	-	-	580	638	716	782
		A - E	434	484	534	592	650	729	795
Starting current (LRA)	(A)	° - L	-	-	-	789	847	984	1050
		A - E	643	752	802	801	859	997	1063
Type of compressors			-	-	-	Scroll			
Compressors/circuits	(n.)	° - L	-	-	-	10/4	12/4	12/4	12/4
		A - E	8/4	8/4	8/4	10/4	12/4	12/4	12/4
Evaporator		All	Plate						
Type of plumbing connections			Victaulic						
Number of hydraulic connections		2	2	2	2	2	2	2	
Hydraulic connections	(Ø)	°-L	-	-	-	4″	4″	4″	4″
		A-E	4″	3″/4″	4″	4″	4″	4″	4″
Buffer tank capacity	(l)	All	2 x 700						
Input power low-head pump	(kW)	°	-	-	-	9,6	9,6	13,0	13,0
		L	-	-	-	9,6	9,6	9,6	9,6
		A	7,4	3,7+4,8	9,6	9,6	9,6	9,6	9,6
		E	15,4	7,7+4,8	9,6	9,6	9,6	9,6	9,6
Input power high-head pump	(kW)	°/L	-	-	-	17,2	17,2	24,7	24,7
		A/E	13,0	6,5+8,6	17,2	17,2	17,2	17,2	17,2
Input current low-head pump	(A)	°/L	-	-	-	16,3	16,3	22,0	22,0
		A/E	12,4	6,2+8,1	16,2	16,3	16,3	22,0	22,0
Input current high-head pump	(A)	°/L	-	-	-	29,2	29,2	42,4	42,4
		A/E	22,0	11+14,6	29,2	29,2	29,2	42,4	42,4
Useful pump head low-head	(kPa)	°	-	-	-	102	88	109	99
		L	-	-	-	133	116	134	130
		A	85	103	103	82	106	94	82
		E	104	118	125	108	125	111	102
Useful pump head high-head	(kPa)	°	-	-	-	246	220	246	237
		L	-	-	-	279	258	271	267
		A	200	227	247	222	226	233	221
		E	216	245	264	246	250	245	236
Sound power	(dBA)	°	-	-	-	93,5	93,5	95,0	95,0
		L	-	-	-	90,5	90,5	92,0	92,0
		A	91	93	94	93,5	93,5	94,5	96,5
		E	86,0	88	89,0	88,5	88,0	89,5	91,5
♪Sound pressure	(dBA)	°	-	-	-	61,5	61,5	63,0	63,0
		L	-	-	-	58,5	58,5	60,0	60,0
		A	59	61	62	61,5	61,5	62,5	64,5
		E	54	56	57	56,5	56	57,5	59,5

Performance values refer to the following conditions:
Cooling:
- leaving water temperature 7 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

♪ Sound pressure measured in free field conditions at distance of 10m and directivity factor = 2. In accordance with ISO 3744.
- Power supply voltage: 400 V

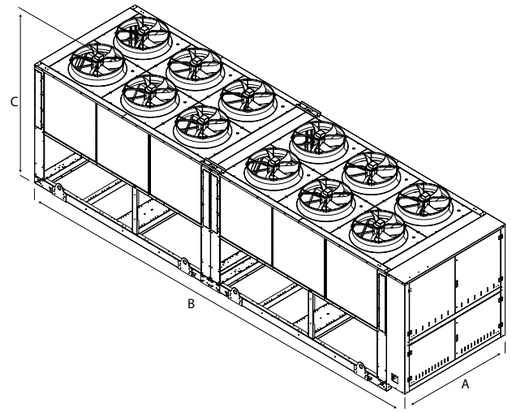
Technical Data

Mod. NRL	U.M.	Vers.	*2000	*2250	*2500	*2800	*3000	*3300	*3600
Cooling capacity	(kW)	°	-	-	-	704	782	860	938
		L	-	-	-	630	702	766	820
		A	564	617	670	744	830	926	994
		E	520	571	622	686	764	852	908
Total power input	(kW)	°	-	-	-	284	322	350	374
		L	-	-	-	314	354	384	416
		A	190	204	218	254	290	304	330
		E	206	221	236	276	316	338	368
EER	(W/W)	°	-	-	-	2,39	2,36	2,36	2,42
		L	-	-	-	1,93	1,92	1,92	1,90
		A	2,97	3,02	3,07	2,93	2,86	3,05	3,01
		E	2,52	2,58	2,64	2,49	2,42	2,52	2,47
Maximum current (FLA)	(A)	° - L	-	-	-	580	638	716	782
		A - E	434	484	534	592	650	729	795
Starting current (LRA)	(A)	° - L	-	-	-	789	847	984	1050
		A - E	643	752	802	801	859	997	1063
Input current	(A)	°	-	-	-	516	594	632	662
		L	-	-	-	558	638	680	722
		A	370	387	404	482	562	578	604
		E	394	413	432	516	598	630	666
Sound power	(dBA)	°	-	-	-	93,5	93,5	95,0	95,0
		L	-	-	-	90,5	90,5	92,0	92,0
		A	91	93	94	93,5	93,5	94,5	96,5
		E	86,0	88	89,0	88,5	88,0	89,5	91,5
♪ Sound pressure	(dBA)	°	-	-	-	61,5	61,5	63	63
		L	-	-	-	58,5	58,5	60	60
		A	59	61	62	61,5	61,5	62,5	64,5
		E	54	56	57	56,5	56	57,5	59,5

Performance values refer to the following conditions:
Cooling:
- leaving water temperature 7 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

♪ Sound pressure measured in free field conditions at distance of 10m and directivity factor = 2. In accordance with ISO 3744.
- Power supply voltage: 400 V

Dimensions (mm)



Mod. NRL		U.M.	Vers.	2000	2250	2500	2800	3000	3300	3600
Height	C	(mm)	° - L	-	-	-	2450	2450	2450	2450
			A - E	2450	2450	2450	2450	2450	2450	2450
Width	A	(mm)	° - L				2200	2200	2200	2200
			A - E	2200	2200	2200	2200	2200	2200	2200
Length	B	(mm)	° - L	-	-	-	8100	8100	8100	8100
			A - E	6400	7250	8100	8100	8100	11100	11100
Weight empty		(Kg)	° - L	-	-	-	5630	6020	6220	6420
			A - E	4820	5240	5660	6060	6510	7590	7850

Cod.: SNRLMSUY.03 / 1102

AERMEC

NRL

Air cooled heat pumps with axial fans
Capacity from 462 to 944 kW

R410A

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- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **COMPACT VERSION**
- **LOW NOISE COMPACT VERSION**
- **4 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY OPTION**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Caratteristiche

- Available in 7 sizes
- Refrigerant R410A
- 4 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Extended operating limits in heat pump operation:
  - Maximum leaving water temperature 55° C
  - Maximum external air temperature 30° C (42° C with fan speed controller accessory DCPX)
- Versions available:
  - H Standard compact heat pump
  - H**L** Low noise compact heat pump
  - H**A** High efficiency heat pump
  - H**E** High efficiency low noise heat pump
- Expansion valve (selected in unit configurator):
  - "°" standard thermostatic expansion valve
  - "X" electronic expansion valve
- Fan type (selected in unit configurator):
  - "°" Standard
  - "M" High static pressure
  - "J" Inverter
- Pump assembly and buffer tank options complete with water filter, flow switch, expansion tank, charging point, and anti-freeze electric heater
- Microprocessor control system:
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory)
  - Evaporating control in summer for heat pump operation (with DCPX accessory)
  - Automatic rotation of compressors and pumps based on operating hours (for all sizes)
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AVX**: spring anti-vibration mounts Select the AVX model from the compatibility table.
- **DCPX**: Low ambient device for cooling operation below 10 °C down to -10 °C. Pressure transducers read the condensing pressure and the electronic controller varies fan speed to maintain adequate pressure for correct unit operation. It also allows a correct operation by heating with external temperatures above 30 ° C and up to 42 ° C.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.
- **TRX1**: Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **PRM1-PRM2**: FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.

Accessory compatibility

Mod. NRL	Vers.	2000	2250	2500	2800	3000	3300	3600
AER485P1	All	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔
TRX1	All	✔	✔	✔	✔	✔	✔	✔
DCPX	H	-	-	-	78	78	82	82
	HL	standard	standard	standard	standard	standard	standard	standard
	HA	78	80	82	82	82	82	82
	HE	standard	standard	standard	standard	standard	standard	standard
GP	H - HL	-	-	-	350 x 2	350 x 2	350 x 2	350 x 2
	HA - HE	260 x 2	260 350	350 x 2	350 x 2	350 x 2	500 x 2	500 x 2
RIF	H - HL	-	-	-	RIFNRL2800	RIFNRL3000	RIFNRL3300	RIFNRL3600
	HA - HE	RIFNRL2000	RIFNRL2250	RIFNRL2500	RIFNRL2800	RIFNRL3000	RIFNRL3300	RIFNRL3600
PRM1/PRM2	All	✔	✔	✔	✔	✔	✔	✔
AVX (00)	H - HL	-	-	-	785	791	791	791
	HA -HE	767	773	779	785	791	798	798
AVX (01-02-03-04)	H - H L	-	-	-	786	792	792	792
	HA - HE	768	774	780	786	792	799	799
AVX (P1-P2-P3-P4)	H - HL	-	-	-	787	793	793	793
	HA - HE	769	775	781	787	793	800	800

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15-16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL

Size:
200, 225, 250, 280, 300, 330, 360

Compressors:
0 - R410A standard compressors

Expansion valve:
° - Standard thermostatic expansion valve for water temperature down to +4 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)

Model:
H - Heat pump

Heat recovery
° - Without heat recovery
D - With partial heat recovery (desuperheater)
T - With total heat recovery (not available with buffer tank)

Version:
° - Standard compact
L - Compact low noise
A - High efficiency
E - High efficiency low noise

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium

Fan:
° - Standard
M - High static pressure
J - Inverter

Power supply:
° - 400V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact head office for versions with DCPX)

Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
09 - double hydraulic circuit
10 - double hydraulic circuit with immersion heater
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– the standard options are shown by the symbol °
– the configurations XD and XT are not available (only for liquid temperatures below +4°C)
Example of configuration code: **NRL2000°H°E°°04**
This is an NRL unit of size 2000, with standard thermostatic expansion valve, heat pump model, without heat recovery, high efficiency, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3~ 50Hz, and single and standby high head pump and buffer tank.

Technical Data

Mod. NRL		Vers.	2000	2250	2500	*2800	*3000	*3300	*3600
Cooling capacity	(kW)	H	-	-	-	666	734	846	908
		HL	-	-	-	604	664	746	794
		HA	522	576	*630	702	776	874	944
		HE	462	515	568	638	710	796	852
Total power input	(kW)	H	-	-	-	280	318	332	358
		HL	-	-	-	308	348	374	408
		HA	188	203	218	252	286	302	324
		HE	214	229	244	280	316	336	364
Water flow rate	(l/h)	H	-	-	-	114550	126250	145510	156180
		HL	-	-	-	103890	114210	128310	136570
		HA	89780	99070	108360	120740	133470	150330	162370
		HE	79460	88580	97700	109740	122120	136910	146540
Pressure drops	(kPa)	H	-	-	-	40,2	40,4	46,9	45,7
		HL	-	-	-	33,4	33,6	37	35,5
		HA	53,5	61,4	61,4	48,0	48,6	54,0	53,5
		HE	42,7	50,6	50,6	40,3	41,2	45,4	44,1
EER	(W/W)	H	-	-	-	2,38	2,31	2,54	2,54
		HL	-	-	-	1,96	1,90	1,99	1,95
		HA	2,78	2,84	2,89	2,79	2,71	2,89	2,91
		HE	2,16	2,25	2,33	2,28	2,25	2,37	2,34
ESEER	(W/W)	H	-	-	-	3,57	3,50	3,53	3,60
		HL	-	-	-	3,47	3,43	3,44	3,41
		HA	3,96	4,04	4,13	3,91	3,82	3,85	3,82
		HE	3,88	3,97	4,06	3,85	3,74	3,81	3,82
Heating capacity	(kW)	H - HL	-	-	-	768	854	936	1006
		HA - HE	586	637	688	776	866	968	1046
Total power input	(kW)	H - HL	-	-	-	252	282	310	332
		HA - HE	186	203	220	248	278	306	326
Water flow rate	(l/h)	H - HL	-	-	-	132100	146890	160990	173030
		HA - HE	100790	109560	118340	133470	148950	166500	179910
Pressure drops	(kPa)	H - HL	-	-	-	53,7	55,4	58,8	57,8
		HA - HE	68,8	75,5	75,5	58,2	60,1	66,3	65,9
COP	(W/W)	H - HL	-	-	-	3,05	3,03	3,02	3,03
		HA - HE	3,15	3,14	3,13	3,13	3,12	3,16	3,21
Power supply	(A)	All	400V - 3 - 50Hz						
Type of fan			Axial						
Total air flow rate	(m3/h)	H	-	-	-	174800	173600	248400	244800
		HL	-	-	-	131000	138800	173800	171400
		HA	167200	209600	252000	248400	244800	336000	331200
		HE	121200	148800	176400	180000	183600	235200	231800
Total input current fan group	(A)	H - HL	-	-	-	28,8	28,8	43,2	43,2
		HA - HE	28,8	36,0	43,2	43,2	43,2	57,6	57,6
Maximum current (FLA)	(A)	H - HL	-	-	-	588	646	730	796
		HA - HE	442	495	548	606	664	747	813
Starting current (LRA)	(A)	H - HL	-	-	-	797	855	998	1064
		HA - HE	651	763	816	815	873	1015	1081
Type			Scroll						
Compressors/circuits	(n°)	All	8/4	8/4	8/4	10/4	12/4	12/4	12/4
Evaporator		All	Plate						
Type of hydraulic connections		All	Victaulic						
Number of hydraulic connections		2	2	2	2	2	2	2	
Hydraulic connections	(Ø)	H - HL	-	-	-	4″	4″	4″	4″
		HA - HE	4″	3″/4″	4″	4″	4″	4″	4″
Buffer tank capacity	(l)	All	2x700	2x700	2x700	2x700	2x700	2x700	2x700
Input power low-head pump	(kW)	All	7,4	3,7+4,8	9,6	9,6	13,0	13,0	13,0
Input power high-head pump	(kW)	All	13,0	6,5+8,6	17,2	17,2	17,2	24,7	24,7
Input current low-head pump	(A)	H/HL	-	-	-	16,3	22	22	22
		HA/HE	12,4	6,2+8,1	16,2	16,3	16,3	22,0	22,0
Input current high-head pump	(A)	H/HL	-	-	-	29,2	29,2	42,4	42,4
		HA/HE	22,0	11+14,6	29,2	29,2	29,2	42,4	42,4
Useful pump head low-head (**)	(kPa)	H	-	-	-	149	142	122	115
		HL	-	-	-	167	157	145	141
		HA	111	128	128	128	125	106	95
		HE	131	150	150	149	141	126	119
Useful pump head high-head (**)	(kPa)	H	-	-	-	290	274	257	251
		HL	-	-	-	310	297	280	276
		HA	225	269	269	266	246	241	232
		HE	247	293	293	289	272	261	255

Mod. NRL		Vers.	2000	2250	2500	2800	3000	3300	3600
Sound power	(dBA)	H	-	-	-	93,5	93,5	95,0	95,0
		HL	-	-	-	90,5	90,5	92,0	92,0
		HA	91,5	93,3	94,5	94,0	93,5	95,0	97,0
		HE	86,0	87,8	89,0	88,5	88,0	89,5	91,5
♪ Sound pressure	(dBA)	H	-	-	-	62	61,5	63,0	65,0
		HL	-	-	-	59	58,5	60,0	62,0
		HA	59,5	61,3	62,5	62	61,5	63,0	65,0
		HE	54,0	55,8	57,0	56,5	56,0	57,5	59,5

*** data declared ISO 14511**

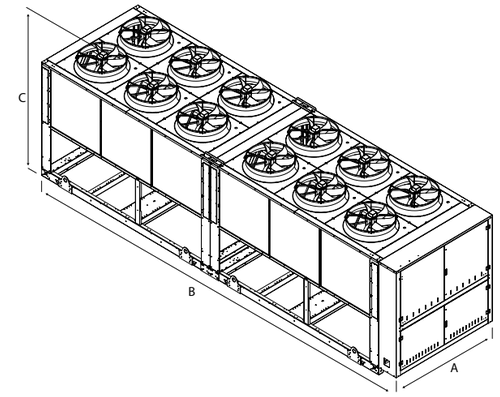
** The useful head is calculated in cooling mode

Performance values refer to the following conditions:
Cooling
- leaving water temperature 7 °C;
- external air temperature 35 °C;
- Δt = 5 °C.

Heating:
- leaving water temperature 45 °C;
- external air temperature 7 °C B.S. 6 °C B.U.;
- Δt = 5 °C.

♪ Sound pressure measured in free field conditions, in cooling mode, at distance of 10m and directivity factor = 2. In accordance with the ISO 3744
- Power supply voltage: 400 V

Dimensions (mm)



Mod. NRL		U.M.	Vers.	200	225	250	280	300	330	360
Height	C	(mm)	H - HL	-	-	-	2450	2450	2450	2450
			HA - HE	2450	2450	2450	2450	2450	2450	2450
Width	A	(mm)	H - HL	-	-	-	2200	2200	2200	2200
			HA -HE	2200	2200	2200	2200	2200	2200	2200
Length	B	(mm)	H - HL	-	-	-	8100	8100	8100	8100
			HA - HE	6400	7250	8100	8100	8100	11100	11100
Weight empty		(kg)	H - HL	-	-	-	6080	6490	6660	6880
			HA-HE	4930	5360	5780	6190	6630	7710	7980

Cod.: SNRLMSHUY.03 / 1102

AERMEC

NEW

NRP

Multipurpose air cooled units with axial fans

R410A



- **DESIGNED FOR 2 AND 4–PIPE SYSTEMS FOR EXTERNAL INSTALLATION**
- **HIGH EFFICIENCY VERSION**

Features

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.

Range:
- Refrigerant R410A.
- 2 refrigerant circuits.
- High efficiency even at part load.
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High efficiency scroll compressors.
- Axial fans with low sound level.
- Extremely solid structure with anti-corrosion polyester paint.
- Extended operating limits in heat pump operation:
  - Maximum leaving water temperature 55 °C.
  - External air temperature from -15 °C to 42 °C.
- 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.
- Available versions:
  - **"A"** High efficiency heat pump.
  - **"E"** High efficiency low noise heat pump.
- Fans:
  - "°" Standard.
  - "M" High static pressure.
  - "J" Inverter.
- Options for integrated hydronic modules with pumps, buffer tank, water filter, flow switch, expansion tank.
- Microprocessor controls.

Accessories

- **VT:** Anti-vibration mounts to be installed under the base of the unit.
- **GP:** Protection grille protects the external coil from accidental damage.
- **TRX1:** Metal cap that replaces the plastic cap, mounted as shipping protection, for immersion heater holes in the buffer tank.
- **DRE:** Electronic soft starter which reduces starting current by about 26%. Available only with 400V power supply. Factory fitted only.
- **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.
- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **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.

Accessory compatibility

		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
VT	00 | P1- P2-P3-P4	17	17	17	17	17	17	13	13	13	13	22	23
	01...08	13	13	13	13	13	13	10	10	10	10	22	23
	P1 | R1...P4 | R4	17	17	17	17	17	17	13	13	13	13	22	23
GP	HA	-	-	-	-	-	-	GP2x2	GP2x2	GP2x2	GP2x2	GP2x3	GP10x3
	HE	GP3	GP3	GP3	GP4	GP4	GP4	GP2x2	GP2x2	GP2x2	GP2x2	GP2x3	GP10x3
TRX1	all	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
DRE	all	281	281	281	301	331	351	501	551	601	651	701	751
RIF	all	54	54	50	50	50	51	52	52	53	53	53	53
AER485P1	all	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	all	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGD1	all	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

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 system requirements.

Configuration fields:

1 2 3 — Code
4 5 6 — Size
7 — Compressor
8 — Version
9 — System type
10 — Coil
11 — Fan
12 — Power supply
13 14 — System integrated hydronic module
15 16 — Heat recovery integrated hydronic module

Code:
NRP

Size:
020, 024, 028, 030, 033, 035, 050, 055, 060, 065, 070, 075

Compressor:
0 - Standard compressors with R410A

Version:
A - High efficiency
E - High efficiency low noise

System type:
2 - 2-pipe system (cooling + DHW heating)
4 - 4-pipe system (cooling + heating)

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium (epoxy paint)

Fan:
° - Standard
M - High static pressure (only sizes 0200-0350)
J - High static pressure inverter (only sizes 0500-0750)

Power supply:
° - 400V/3N/50Hz with circuit breakers
1 - 230V/3/50Hz with circuit breakers
(not available for sizes 0200, 0240, 0750)
2 - 500V/3/50Hz with circuit beakers
(not available for sizes 0200, 0240, 0350, 0500, 0550, 0700, 0750
contact the head office)

Attention:
- **Sizes 0200 to 0350 only available in low noise version "E".**
- **(1) 4-pipe cooling and heating**
  2-pipe cooling or heating
- **(2) 2-pipe system - can works as priority regardless of main system operation**

System integrated hydronic module (1):
00 - without pumps or buffer tank
01 - low head pump and buffer tank
02 - low head and standby pump and buffer tank
03 - high head pump and buffer tank
04 - high head and standby pump and buffer tank
05 - low head pump and buffer tank (with holes for immersion heaters)
06 - low head and standby pump and buffer tank (with holes for immersion heaters)
07 - high head pump and buffer tank (with holes for immersion heaters)
08 - high head and standby pump and buffer tank (with holes for immersion heaters)
P1 - only low head pump
P2 - only low head and standby pump
P3 - only high head pump
P4 - only high head and standby pump

Heat recovery integrated hydronic module (2):
00 - without pumps
R1 - only low head pump
R2 - only low head and standby pump
R3 - only high head pump
R4 - only high head and standby pump

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 0200 … 0750

system hydronic module \ heat recovery 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

Technical data

NRP	u.m	Version	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
1 Cooling capacity	(kW)	A	-	-	-	-	-	-	100	104	124	141	160	185
		E	43	50	56	64	68	80	95	99	116	131	153	179
Total input power	(kW)	A	-	-	-	-	-	-	32,0	35,5	43,6	49,8	54,3	63,5
		E	13,8	16,3	18,7	20,6	23,0	26,7	34,8	38,5	47,9	54,9	61,1	69,6
Water flow rate	(l/h)	A	-	-	-	-	-		17118	17949	21269	24211	27556	31749
		E	7400	8600	9549	10956	11711	13776	16390	17051	19874	22457	26270	30867
Pressure drop SISTEM SIDE	(kPa)	A	-	-	-	-	-	-	37	39	37	48	56	67
		E	26	37	22	29	22	31	34	35	32	41	51	63
EER	(W/W)	A	-	-	-	-	-	-	3,11	2,94	2,83	2,83	2,95	2,91
	(W/W)	E	3,12	3,06	2,96	3,10	2,97	3,00	2,74	2,58	2,41	2,38	2,50	2,58
2 Heating capacity	(kW)	A/E	46	53	60	75	80	84	106	112	137	152	173	205
Total input power	(kW)	A/E	13,1	15,3	17,5	22,0	23,6	25,3	32,1	34,5	40,6	44,9	52,8	61,4
Water flow rate	(l/h)	A/E	7912	9116	10236	12833	13732	14526	18242	19290	23507	26146	29796	35340
Pressure drop SISTEM SIDE vers. 2 pipe system	(kPa)	A/E	31	42	25	39	31	34	42	45	45	56	66	83
Pressure drop DHW SIDE/SYSTEM SIDE*	(kPa)	A/E	13	17	21	33	38	19	31	34	51	49	35	50
COP	(W/W)	A/E	3,50	3,46	3,41	3,40	3,38	3,33	3,30	3,25	3,37	3,39	3,28	3,34
3 Cooling capacity	(kW)	A/E	45	52	58	68	73	86	102	110	132	147	167	200
Heating capacity	(kW)	A/E	58	67	75	88	95	111	132	142	174	193	218	261
Total input power	(kW)	A/E	13,0	15,2	17,5	20,0	22,0	25,0	30,0	32,0	42,0	46,5	51,0	61,0
Evaporator water flow rate	(l/h)	A/E	7740	8944	9890	11696	12556	14792	17544	18920	22704	25198	28724	34400
Evaporator Pressure drop system side	(kPa)	A/E	30	40	24	33	26	36	39	43	42	52	61	78
Recovery water flow rate	(l/h)	A/E	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892
Recovery water flow rate DHW SIDE/SYSTEM SIDE*	(kPa)	A/E	20	27	33	46	54	33	47	55	82	78	56	80
Total Efficiency Ratio (TER)	(W/W)	A/E	8,10	7,82	7,57	7,80	7,64	7,88	7,80	7,88	7,29	7,30	7,55	7,56
Electrical data														
Power supply								400V/3N/50Hz						
Total input current	(A)	A	-	-	-	-	-	-	55	59	72	82	88	113
		E	28	33	38	41	45	52	60	64	79	91	99	120
Maximum current (FLA)	(A)	A/E	36	41	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)	(A)	A/E	119	150	155	184	190	200	214	220	232	243	261	320
Compressors								scroll						
Compressors (n°/circuit)		A/E	2/2	2/2	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2
Fans								Axial						
Air flow rate	(m³/h)	A	-	-	-	-	-	-	37000	37000	36500	36500	58000	48000
		E	20000	20000	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Quantity of fans	(n°)	A/E	6	6	6	8	8	8	2	2	2	2	3	3
High static pressure fans (M)														
Static pressure available	(Pa)		70	70	70	70	70	70	-	-	-	-	-	-
Inverter fans (J)														
Static pressure available	(Pa)		-	-	-	-	-	-	50	50	50	50	50	50
Evaporator								Plate						
Hydraulic connection type								Victaulic						
Hydraulic connections size	(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"
hydronic module														
Pumps - Useful head (calculated in cooling mode)														
Low head pump	(kPa)	A	-	-	-	-	-	-	141	133	124	95	113	104
		E	132	120	135	126	128	120	147	140	135	114	125	110
High head pump	(kPa)	A	-	-	-	-	-	-	181	173	211	181	177	224
		E	172	160	175	165	166	159	186	180	223	200	192	231
Buffer tank														
Capacity	(l)		300	300	300	300	300	300	500	500	500	500	500	700
Sound data								**COOLING MODE**						
Sound pressure	dB(A)	A	-	-	-	-	-	-	50	50	50	51	53	53
		E	42	42	42	43	43	44	42	42	42	43	45	45
Sound power	dB(A)	A	-	-	-	-	-	-	82	82	82	83	85	85
		E	74	74	74	75	75	76	74	74	74	75	77	77
								HEATING MODE						
Sound pressure	dB(A)		42	42	42	43	43	44	50	50	50	51	53	53
Sound power	dB(A)		74	74	74	75	75	76	82	82	82	83	85	85

1 Cooling mode:
evaporator leaving water temperature 7 °C
external air temperature 35 °C
ΔT 5 K

2 Heating mode:
condenser leaving water temperature 45°C
evaporator air temperature 7 °C db / 6 °C wb
ΔT 5 K

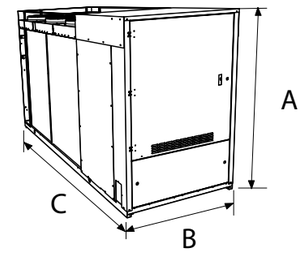
3 Cooling mode with heat recovery:
heat recovery leaving water temperature 45 °C
evaporator leaving water temperature 7 °C
ΔT 5 K

Sound power:
Aermec determines sound power values in accordance with ISO 9614-2, as required for Eurovent certification.

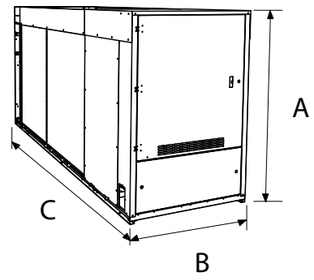
Sound Pressure:
Sound pressure measured in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from external surface of unit, in accordance with ISO 3744.

***DHW SIDE/SYSTEM SIDE**
DHW side, production of domestic hot water, in 2-pipe systems.
System side, production of hot water, in 4-pipe systems.

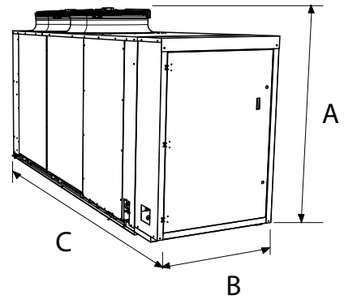
Dimensions (mm)



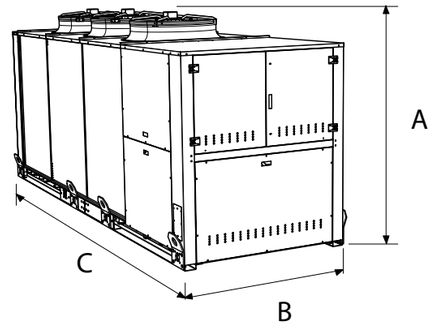
NRP 0200 ÷ 0280



NRP 0300 ÷ 0350



NRP 0500 ÷ 0650



NRP 0700 ÷ 0750

NRP	u.m		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height (mm)	A	A/E	1606	1606	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
Width (mm)	B	A/E	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
Length (mm)	C	A/E	2700	2700	2700	3200	3200	3200	3280	3280	3280	3280	4280	4350
Weight empty	(kg)	A/E	788	790	792	862	872	894	1233	1237	1359	1378	1591	1939

Attention: weights refer to units without pumps or buffer tank.

Cod.: SNRP0200-0750UY.00 /1112

AERMEC

NEW

NRP

Multipurpose air cooled units with axial fans

R410A



- **DESIGNED FOR 2 AND 4–PIPE SYSTEMS FOR EXTERNAL INSTALLATION**
- **HIGH EFFICIENCY VERSION**

Features

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.

Range:
- Refrigerant R410A.
- 2 refrigerant circuits.
- High efficiency even at part load.
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High efficiency scroll compressors.
- Axial fans with low sound level.
- Extremely solid structure with anti-corrosion polyester paint.
- Extended operating limits in heat pump operation:
  - Maximum leaving water temperature 55 °C.
  - External air temperature from -15 °C to 42 °C.
- 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.
- Available versions:
  - **"A"** High efficiency heat pump.
  - **"E"** High efficiency silenced heat pump.
- Ventilation Unit:
  - "°" Standard.
  - "J" Inverter.
- Options for integrated hydronic modules with pumps, water filter, flow switch, expansion tank.
- Microprocessor controls.

Accessories

- **AVX:** Anti-vibration mounts to be installed under the base of the unit.
- **GP:** Protection grille protects the external coil from accidental damage.
- **AER485P1: RS-485** interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **DRE:** Electronic soft starter which reduces starting current by about 26%. Available only with 400V power supply. Factory fitted only.
- **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.
- **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.

Accessory compatibility

NRP		0800	0900	1000	1250	1400	1500	1650	1800
AVX	00	704	710	716	719	725	730	734	737
	P1-P2-P3-P4	706	712	712	721	727	732	736	736
	P1|R1...P4|R4	706	712	712	721	727	732	736	736
GP	all	GP260	GP260	GP260	GP350	GP350	GP350	GP500	GP500
AER485P1	all	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	all	✔	✔	✔	✔	✔	✔	✔	✔
DRE	all	801	901	1001	1251	1401	1501	1651	1801
PGD1	all	✔	✔	✔	✔	✔	✔	✔	✔
RIF	all	88	90	92	92	93	94	94	94

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.

Configuration fields:

1 2 3 — Code
4 5 6 — Size
7 — Compressor
8 — Version
9 — System type
10 — Coil
11 — Fan
12 — Power supply
13 14 — System integrated hydronic module
15 16 — Heat recovery integrated hydronic module

Code:
NRP

Size:
080, 090, 100, 125, 140, 150, 165, 180

Compressor:
0 - Standard compressors with R410A

Version:
A - High efficiency
E - High efficiency low noise

System type:
2 - 2-pipe system (cooling + DHW heating)
4 - 4-pipe system (cooling + heating)

Coils:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium (epoxy paint)

Fans:
° - Standard
J - High static pressure inverter

Power supply:
° - 400V/3N/50Hz with circuit breakers
2 - 500V/3/50Hz with circuit beakers
(contact the head office)

(1) 4-pipe cooling and heating
2-pipe cooling or heating
(2) 2-pipe system - can works as priority regardless of main system operation

System integrated hydronic module (1):
00 - without pumps or buffer tank
P1 - only low head pump
P2 - only low head and standby pump
P3 - only high head pump
P4 - only high head and standby pump

Heat recovery integrated hydronic module (2):
00 - without pumps
R1 - only low head pump
R2 - only low head and standby pump
R3 - only high head pump
R4 - only high head and standby pump

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 0800 ... 1000

NRP: system hydronic module \ heat recovery hydronic module	°	R1	R2	R3	R4
°	ok	ok	na	ok	na
P1	ok	ok	na	ok	na
P2	ok	ok	na	ok	na
P3	ok	ok	na	ok	na
P4	ok	ok	na	ok	na

n.a. = not available

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 1250 ... 1800

NRP: system hydronic module \ heat recovery 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

Technical data

	NRP	u.m	Version	0800	0900	1000	1250	1400	1500	1650	1800
1	Cooling capacity	(kW)	A	218	243	260	323	365	402	441	477
			E	200	217	230	291	332	368	402	430
	Total input power	(kW)	A	72,4	82,2	88,2	107,7	121,0	135,0	145,3	155,9
			E	80,3	94,3	100,4	120,5	134,4	149,2	161,6	175,1
	Water flow rate	(l/h)	A	37498	41841	44753	55506	62852	69171	75888	81966
			E	34477	37289	39609	50044	57122	63288	69115	73977
	Pressure drop SISTEM SIDE	(kPa)	A	59	58	54	64	52	53	55	55
			E	50	47	43	54	43	44	46	45
	EER	(W/W)	A	3,01	2,96	2,95	3,00	3,02	2,98	3,04	3,06
		(W/W)	E	2,50	2,30	2,29	2,41	2,47	2,47	2,49	2,46
2	Heating capacity	(kW)	A / E	241	258	290	384	400	459	503	544
	Total input power	(kW)	A / E	73,2	79,7	87,8	114,5	119,5	137,6	153,0	164,6
	Water flow rate	(l/h)	A / E	41498	44312	49946	66115	68833	78870	86579	93555
	Pressure drop SISTEM SIDE vers. 2 pipe system	(kPa)	A/E	73	66	68	93	63	68	72	72
	Pressure drop DHW SIDE/SYSTEM SIDE*	(kPa)	A / E	50	44	49	49	44	51	51	53
	COP	(W/W)	A / E	3,29	3,23	3,31	3,36	3,35	3,33	3,29	3,30
3	Cooling capacity	(kW)	A / E	223	251	278	334	379	422	463	496
	Heating capacity	(kW)	A / E	289	328	364	432	491	550	598	642
	Total input power	(kW)	A / E	66,0	77,0	86,0	98,0	112,0	128,0	135,0	146,0
	Evaporator water flow rate	(l/h)	A / E	38356	43172	47817	57449	65189	72585	79637	85313
	Evaporator Pressure drop system side	(kPa)	A / E	62	62	62	71	56	58	61	60
	Heat recovery water flow rate	(l/h)	A / E	49709	56417	62609	74305	84453	94601	102857	110425
	Heat recovery water flow rate DHW SIDE/SYSTEM SIDE*	(kPa)	A / E	72	72	77	63	66	73	72	74
	Total Efficiency Ratio (TER)	(W/W)	A / E	7,76	7,52	7,47	7,82	7,77	7,59	7,86	7,79
	Electrical data										
	Power supply						400V/3/50Hz				
	Total input current	(A)	A	136	158	180	196	235	273	289	304
			E	145	169	192	211	251	292	306	324
	Maximum current (FLA)	(A)	A / E	173	195	217	267	296	325	365	398
	Starting current (LRA)	(A)	A / E	348	404	426	535	505	534	633	666
	Compressors										
	Compressors (n°/circuits)		A / E	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2
	Fans						Axial				
	Air flow rate	(m³/h)	A	85600	84600	83600	126000	124200	122400	168000	165600
			E	59920	59220	60610	88200	90000	91800	117600	115920
	Quantity of fans	(n°)	A / E	4	4	4	6	6	6	8	8
	Inverter fans (J)										
	Static pressure available	(Pa)		50	50	50	50	50	50	50	50
	Evaporator						plate				
	Hydraulic connections type						Victaulic				
	Hydraulic connections size	(Ø)		3"	3"	3"	4"	4"	4"	4"	4"
	Hydronic module										
	Pumps - Useful head (calculated in cooling mode)										
	Low head pump	(kPa)	A	123	114	111	128	128	125	106	95
			E	135	132	131	150	149	141	126	119
	High head pump	(kPa)	A	240	230	225	269	266	246	241	232
			E	252	249	247	293	289	272	261	255
							Cooling mode				
	Sound pressure	dB(A)	A	56,5	56,5	56,5	59,5	59	58,5	60	62
			E	51	51	51	54	53,5	53	54,5	56,5
	Sound power	dB(A)	A	88,5	88,5	88,5	91,5	91	91,5	92	94
			E	83	83	83,5	86	85,5	85	86,5	88,5
							Heating mode				
	Sound pressure	dB(A)		56,5	56,5	56,5	59,5	59	58,5	60	62
	Sound power	dB(A)		88,5	88,5	88,5	91,5	91	91,5	92	94

1 **Cooling mode:**
evaporator leaving water temperature 7 °C
external air temperature 35 °C
ΔT 5 K

2 **Heating mode:**
condenser leaving water temperature 45°C
evaporator air temperature 7 °C db / 6 °C wb
ΔT 5 K

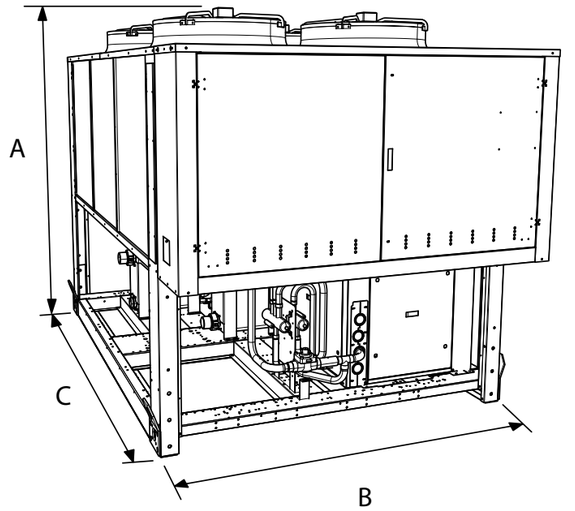
3 **Cooling mode with heat recovery:**
heat recovery leaving water temperature 45 °C
evaporator leaving water temperature 7 °C
ΔT 5 K

Sound power:
Aermec determines sound power values in accordance with ISO 9614-2, as required for Eurovent certification.

Sound Pressure:
Sound pressure measured in free field conditions over a reflective plane (directivity factor Q=2) at 10 m distance from external surface of unit, in accordance with ISO 3744.

* **DHW SIDE/SYSTEM SIDE**
DHW side, production of domestic hot water, in 2-pipe systems.
System side, production of hot water, in 4-pipe systems.

Dimensions (mm)



NRP	u.m		0800	0900	1000	1250	1400	1500	1650	1800
Height (mm)	A	A/E	2450	2450	2450	2450	2450	2450	2450	2450
Width (mm)	B	A/E	2200	2200	2200	2200	2200	2200	2200	2200
Length (mm)	C	A/E	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	(kg)	A/E	2270	2460	2640	2970	3220	3430	3950	4090

Attention: weights refer to units without pumps or buffer tank.

Cod.: SNRP0800-1800UY.00 /1112

AERMEC

NRL Free Cooling

Air cooled chiller with axial flow fans
Cooling capacity from 58 kW up to 174 kW

R410A



- **HIGH EFFICIENCY VERSION**
- **SILENCED HIGH EFFICIENCY VERSION**
- **VERSION WITH CIRCULATION PUMP**
- **2 COOLING CIRCUITS**
- **VERSION WITH CIRCULATION PUMP AND STORAGE TANK**

Features

- Available in 9 different sizes
- Refrigerant R410A.
- 2 cooling circuits
- High efficiency even with partial loads
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A
- High-efficiency scroll compressors
- Axial flow fans with reduced noise level
- Solid construction with polyester anticorrosion painted finish
- Cooling mode up to 44° C
- Operation modes:
  - Free-Cooling only: is the most economical way to use the unit. Only the fans operate in modulation of speed, the cooling power is fully recovered from the external air
  - mixed Free-Cooling and compressors: the cooling power recovered from the external air is integrated with the total or partial operation of the compressors
  - compressors only: the cooling capacity is provided entirely by the compressors (standard operation of a chiller)
- Versions available:
  - High efficiency
  - Silenced high efficiency
  - Glycole-free
  - With pumping assembly (high-head, with/without reserve pump)
  - Versions with pumping assembly and 300 litre tank, complete with water filter, flow switch, expansion tank and antifreeze electric heater
  - Electronic thermostatic valve
  - Enlarged fans
- Microprocessor control system of the compressors and fans for the management of the three operating modes (Free-Cooling only, mixed Free-Cooling and compressors and compressors only)
- Display of all operating parameters in 4 languages.
- Simplified remote control panel with shielded cable up to 50 m. Performs the basic checks of the unit with alarm warnings.
- High efficiency air-water exchanger (Free-Cooling) with smooth tubes and corrugated fins
- Three-way valve located on the water side for water switch-over on the Free-Cooling coils
- High and low pressure transducers(standard for all versions)
- Fan speed adjustment device for low air temperature operation. Manages the cooling capacity in the Free-Cooling mode

Accessories

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.
- **VT**: anti-vibration support, to be fitted below the sheet metal base of the unit.
- **DRE**: Current soft starter device (about 26% for two-circuit-units, 22% for three-circuit-units)
  Only available for 400V-3-phase power supply. It must be factory set
- **GP**: Protection grille, protects the external coil from accidental knocks.
- **PGS**: Daily/Weekly Programmer.
  Allows you to programme two time bands per day (two switch on/off cycles) and to have differentiated programming for each day of the week.
- **RIF**: Capacitor device . Connected in parallel to the motor winding. It allows to maintain a costant COSδ at 0.95 and also allows an input current reduction (about 10%).
  It must be factory set when the unit is manufactured
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem
- **DUALCHILLER:** Simplified control system to switch on and off, and command, two chillers (using Aermec GR3 command) in a single system, as if they were a single unit.
- **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.
- **PRM1-PRM2:** FACTORY FITTED ACCESSORY. It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

Compatibility of accessories

Mod. NRL	Vers.	280	300	330	350	500	550	600	650	700
AER485	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
dualchiller	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
multichiller	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT	00 - P3 - P4	17	17	17	17	13	13	22	22	22
	03 - 04	13	13	13	13	10	10	22	22	22
DRE	All	281	301	331	351	501	551	601	651	701
GP	All	✔	✔	✔	✔	2(x2)	2(x2)	2(x3)	2(x3)	2(x3)
RIF	All	50	50	50	51	52	52	53	53	53
PRM1-PRM2	All	✔	✔	✔	✔	✔	✔	✔	✔	✔

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 configurator:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15-16
Code	Size	Compressor	Valve Heat thermostat	Model	Recovery units	Version	Coils	Fan	Power supply	Storage tank

Code:
NRL
Size:
028, 030, 033, 035, 050, 055, 060, 065, 070
Compressors:
0 - standard compressor with R410A
Thermostatic valve:
° - Standard mechanical thermostatic valve
Y - Mechanical thermostatic valve with processed water from +4°C down to -6 °C
X - Electronic thermostatic valve also with processed water down to +4°C (for different temperature contact the head office)
Model:
F - Free-cooling
B - Free-cooling glycol free
Heat recovery units:
° - Without recovery units
Version:
A - High efficiency
E - High efficiency, silenced version
Batteries:
° - Aluminium
R - Copper
S - Tinned copper
V - In painted aluminium (epoxy paint)
Fans:
° - Standard
M - Oversized
Alimentazione:
° - 400V 3N~ 50Hz with thermomagnetic switches
1 - 230V 3~ 50Hz with thermomagnetic switches
2 - 500V 3~ 50Hz with thermomagnetic switches
(contact the company head office for versions with DCPX)
Storage tank: (options listed are available only for models "F" free cooling)
00 -without storage tank
03 - high-head storage tank and single pump
04 - high-head storage tank and reserve pump
P3 - without storage tank, with high-head pump
P4 - without storage tank, with high-head pump and reserve pump

ATTENTION:
The "B" model (free-cooling glycol free) can not be configured with hydronic kit.

Warning:
– the standard options are shown by the symbol °;
Example of the commercial code: NRL0350°F°A°°°00
This is a size 035 NRL unit with standard mechanical thermostatic valve, Free-cooling model, high efficiency, with aluminium condensing coils, standard fans, electrical panel for compressors with 400V 3N~ 50Hz motors and without storage tank.

Technical data

Mod. NRL Free Cooling		Vers.	280	300	330	350	500	550	600	650	700
Cooling capacity	(kW)	A	-	-	-	-	99,0	104,0	132,0	144,0	159,0
		E	59,0	65,0	74,0	82,0	91,0	95,0	119,0	130,0	147,0
Total power input	(kW)	A	-	-	-	-	33,7	37,3	44,5	51,7	60,8
		E	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8
Water flow rate	(l/h)	A	-	-	-	-	17030	17890	22700	24770	27350
		E	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop	(kPa)	A	-	-	-	-	60	69	78	73	87
		E	63	53	66	58	51	58	63	60	74
EER	(W/W)	A	-	-	-	-	2,93	2,79	2,96	2,79	2,62
		E	3,26	2,98	3,08	2,90	2,46	2,37	2,42	2,17	2,23
Input current	(A)	A	-	-	-	-	61	65	79	84	101
		E	32	38	41	51	67	70	87	97	109
Cooling capacity	(kW)	A/E	58,0	68,0	83,0	85,0	103,0	104,0	137,0	159,0	174,0
Total power input	(kW)	A/E	1,05	1,05	1,35	1,35	2,65	2,65	3,9	3,9	5,4
Water flow rate	(l/h)	A	-	-	-	-	17030	17890	22700	24770	27350
		E	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop	(kPa)	A	-	-	-	-	79,2	90,1	107,9	107,2	124,1
		E	95,6	69,1	85,8	82,2	67	75	88	87	106
EER	(W/W)	A/E	55,24	64,76	61,48	62,96	38,87	39,25	35,13	40,77	32,22
Input current	(A)	A/E	4,6	4,6	5,9	5,9	5,9	5,9	8,7	8,7	11,6
Maximum current (FLA)	(A)	A/E	46	53	58	63	76	81	100	112	122
Starting current (LRA)	(A)	A/E	155	184	190	200	214	220	232	243	261
Compressors/circuits	(n°/n°)	A/E	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2
Sound power	dB(A)	A	-	-	-	-	82	82	82	83	85
		E	74	74	75	76	74	74	74	75	77
♪ Sound pressure	dB(A)	A	-	-	-	-	50	50	50	51	53
		E	42	42	43	44	42	42	42	43	45
Plumbing connections	(Ø)	0	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
Motor input power	(kW)	A/E	0,9	0,9	1,2	1,2	2,5	2,5	3,75	3,75	5,25
Motor input current	(A)	A/E	3,9	3,9	5,2	5,2	5,6	5,6	8,4	8,4	11,3
Air flow rate	(m3/h)	A	-	-	-	-	32500	32500	50000	49000	56000
		E	20000	19000	25000	25000	23400	24100	33500	35300	47600

Hydronic kit for models only "F" Free Cooling											
Tank capacity	(l)	A/E	300	300	300	300	300	300	300	300	300
Input power pump motor	(kW)	A/E	1,5	1,5	1,5	1,5	1,85	1,85	3	3	3
Input current pump motor	(A)	A/E	3,6	3,6	3,6	3,6	5	5	5,7	5,7	5,7
Useful head (chiller)	kPa	A	-	-	-	-	144	132	147	137	99
		E	124	132	110	118	160	151	174	169	131
Useful head (freecooling)	kPa	A	-	-	-	-	123	109	114	122	77
		E	88	115	88	91	142	131	147	156	115

Cooling:
- water outlet temperature 7 °C;
- outside air temp. 35 °C;
- Δt = 5°C.

Cooling in Free-Cooling mode
- water inlet temperature 15°C;
- outside air temperature 2°C;
- nominal water flow rate;
- compressors off.

Sound power
Aermec determines the sound power value on the basis of measurements taken in accordance with standard 9614-2

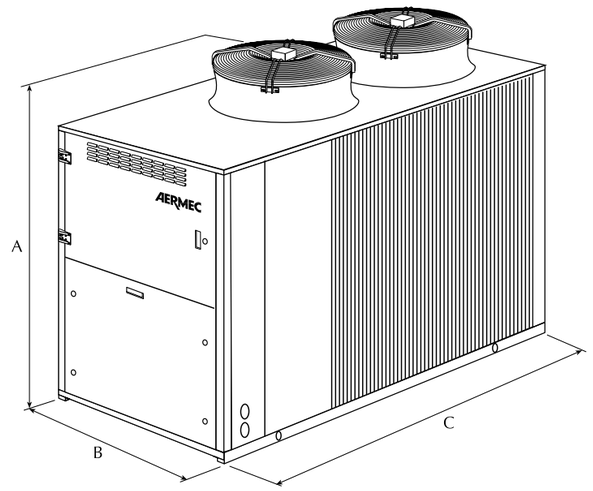
♪ **Sound pressure**
measured in free field conditions, in cooling mode, at distance of 10m and direction factor = 2.
In accordance with the ISO 3744 standard
- Power supply voltage: 400 V

Technical data

Mod. NRL Free Cooling Glycol free		Vers.	280	300	330	350	500	550	600	650	700
Cooling capacity	kW	BA|BE	45	52	64	66	79	80	104	122	133
Total power input	kW	BA|BE	1,85	1,85	2,35	2,35	3,65	3,65	5,2	5,7	7,7
Water flow rate	(l/h)	BA	-	-	-	-	17030	17890	22700	24770	27350
		BE	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop	(kPa)	BA	-	-	-	-	92	101	101	104	120
		BE	94	88	90	82	78	84	82	85	103
Input current	A	BA|BE	8,1	8,1	10,3	10,3	8,1	8,1	11,6	12,7	16,5
Sound power	dB(A)	BA|BE	74	74	75	76	82	82	83	84	87
Sound pressure	dB(A)	BA|BE	42	42	43	44	50	50	51	52	55
Air flow rate	(m3/h)	BA|BE	20000	19000	25000	25000	32500	32500	50000	49000	56000

Cooling in Free-Cooling Glycol free
- water inlet temperature 15°C;
- outside air temperature 2°C;
- nominal water flow rate;
- compressors off.

Dimensions (mm)



Mod. NRL		U.M.	Vers.	280	300	330	350	500	550	600	650	700
Height	A	(mm)	A/E	1606	1606	1606	1606	1875	1875	1875	1875	1875
Width	B	(mm)	A/E	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth	C	(mm)	A/E 00 FA/FE BA/BE	2950	2950	2950	2950	3200	3200	3950	3950	3950
Weight when empty	A	(kg)	-	838	908	913	922	1079	1083	1386	1460	1540

Cod.: SNRLFCUY.08 /1201

NRL Free-Cooling

Air cooled chillers with axial fans
Cooling capacity from 177 kW to 452 kW

R410A



- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **PUMP ASSEMBLY OPTION**
- **2 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 9 sizes
- Refrigerant R410A
- 2 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Operation up to 44° C ambient in cooling mode
- Operation modes:
  - Free-Cooling only: is the most economical way to use the unit. Only the fans operate by speed control. Cooling is achieved completely from the external air temperature
  - combined Free-Cooling and compressors: the cooling capacity is achieved from the external air temperature combined with compressor operation at full or partial load
  - compressors only: the cooling capacity is provided entirely by the compressors (standard operation of a chiller)
- Versions available:
  - High efficiency
  - High efficiency low noise
  - Glycol free
  - With pump assembly (high head, with/without standby pump)
  - With pump assembly and 700 litre buffer tank (500 litres for size 750), complete with water filter, flow switch, expansion tank, charging point and antifreeze electric heater
  - Electronic expansion valve
  - Inverter fans
- Microprocessor control system of the compressors and fans for the control of the three operating modes (Free-Cooling only, combined Free-Cooling and compressors, and compressors only)
- Display of all operating parameters in 4 languages.
- Simplified remote control panel located up to 50 m distance away with shielded cable. Permits basic control and alarm notifications of the unit
- High efficiency air-water coil (Free-Cooling) with smooth tubes and wavy fins
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-Cooling coils
- High and low pressure transducers (standard for all versions)
- Fan speed controller for low ambient operation. In Free-Cooling mode controls capacity

Accessories

- **AER485P1: RS-485** interface for supervision systems with MODBUS protocol.
- **AVX:** spring anti-vibration mounts Select the AVX model from the compatibility table.
- **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.
- **GP:** Protection grille protects the external coil from accidental damage.
- **PGS:** Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **DUALCHILLER:** Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **PRM1 and PRM2: FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.**

Accessory compatibility

Mod. NRL	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
AER485	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
PGS	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	All	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT	00 - P3 - P4	23	-	-	-	-	-	-	-	-
	03 - 04	23	-	-	-	-	-	-	-	-
AVX	00	-	739	739	745	748	752	757	761	766
	P3 - P4	-	741	744	747	750	754	758	763	763
	03 - 04	-	740	743	746	749	753	753	762	762
DRE	All	751	801	901	1001	1251	1401	1501	1651	1801
GP	All	10 (x3)	260	260	260	350	350	350	500	500
RIF	All	53	88	90	92	92	93	94	94	94
PRM1-PRM2	All	✔	✔	✔	✔	✔	✔	✔	✔	✔

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15-16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
075, 080, 090, 100, 125, 140, 150, 165, 180
Compressor:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve
Y - Thermostatic expansion valve with leaving liquid temperature from +4°C down to -6 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
F - Free-cooling
B - Free-cooling glycol free
Heat recovery
° - Without heat recovery
D - With desuperheater (partial heat recovery), not available for size 800-900-1000 with storage tank (03-04)
Version:
A - High efficiency
E - High efficiency low noise version
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium (epoxy paint)
Fan:
° - Standard
J - Inverter
Power supply:
° - 400V 3N~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers (contact the head office for versions with DCPX)
Integrated hydronic module:
00 - without pump or buffer tank
03 - single high head pump and buffer tank
04 - single and standby high head pump and buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

WARNING:
The model "B" (Free-cooling, Free-cooling glycol free glycol can not be provided with hydronic kit.

Attention:
– the standard options are shown by the symbol °
Example of configuration code: NRL0750°F°A°°°00
This is an NRL unit of size 750, with standard thermostatic expansion valve, Free-cooling model, without heat recovery, high efficiency, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3N~ 50Hz, and without pump or buffer tank.

Technical Data

Mod. NRL Free Cooling	U.M.	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity	(kW)	FA	191	210	229	247	310	337	364	430	452
		FE	177	196	216	228	289	310	331	400	421
Total power input	(kW)	FA	69,6	75	89	103	114	136	157	159	175
		FE	76,4,	80	93	109	120	145	169	169	186
Water flow rate	(l/h)	FA	32850	36120	39390	42480	53320	57960	62610	73960	77740
		FE	30440	33730	37110	39210	49670	53260	56850	68770	72330
Total pressure drop	(kPa)	FA	103	77	82	81	92	98	83	104	107
		FE	89	68	73	69	80	84	70	90	93
EER	(W/W)	FA	2,75	2,81	2,58	2,41	2,72	2,48	2,31	2,70	2,58
		FE	2,32	2,46	2,33	2,09	2,40	2,14	1,95	2,37	2,26
Input current	(A)	FA	123	144	169	195	208	252	296	298	317
		FE	135	149	174	203	217	265	312	310	332
Cooling capacity	(kW)	FA	187	182	206	229	257	291	326	399	440
		FE	187	178	201	223	263	288	314	396	443
Total power input	(kW)	All	5,4	7,5	7,5	7,5	11,0	11,0	11,0	14,5	14,5
Water flow rate	(l/h)	FA	32850	36120	39390	42840	53320	57960	62610	73960	77740
		FE	30440	33730	37110	39210	49670	53260	56850	68770	72330
Total pressure drop	(kPa)	FA	156,3	105	110	110	123	131	117	140	145
		FE	134	93	99	94	106	110	94	117	120
EER	(W/W)	FA	34,63	24,30	27,48	30,53	23,34	26,47	29,61	27,48	30,32
		FE	34,63	23,76	26,76	29,76	23,89	26,19	28,50	27,33	30,58
Input current	(A)	FA/FE	11,6	15	15	15	22	22	22	30	30
Maximum current (FLA)	(A)	FA/FE	144	177	199	221	274	303	332	373	406
Starting current (LRA)	(A)	FA/FE	320	352	408	430	542	512	541	641	674
Compressors/circuits	(n°/n°)	FA/FE	4 / 2	4 / 2	4 / 2	4 / 2	4/2	5/2	6/2	6/2	6/2
Sound power	dB(A)	FA	87	88,5	88,5	88,5	91,5	91	90,5	92	94
		FE	82	82,5	82,5	82,5	85,5	85	84,5	86	88
♪ Sound pressure	dB(A)	FA	55	56,5	56,5	56,5	59,5	59,0	58,5	60,0	62,0
		FE	50	50,5	50,5	50,5	53,5	53,0	52,5	54,00	56,0
Hydraulic connections	(Ø)	(00)	2"1/2	3"	3"	3"	4"	4"	4"	4"	4"
Air flow rate	(m3/h)	FA	56000	79600	78800	78000	115200	114000	112800	155200	153600
		FE	46500	55700	55200	55800	80600	79800	80700	108600	109800
Pump assembly option											
Tank capacity	(l)	FA/FE	500	700	700	700	700	700	700	700	700
Input power pump motor	(kW)	FA/FE	5,5	6,5	6,5	6,5	8,6	8,6	8,6	12,3	12,3
Input current pump motor	(A)	FA/FE	11	11,0	11,0	11,0	14,6	14,6	14,6	21,2	21,2
Useful head (Chiller)	kPa	FA	177	220	210	204	242	223	224	192	182
		FE	200	233	222	223	262	250	255	214	206
Useful head (Free-cooling)	kPa	FA	119	194	184	177	214	195	195	165	155
		FE	150	211	202	203	245	234	242	197	189

Cooling
- leaving water temperature 7°C;
- external air temperature 35°C;
- Δt = 5 °C;

Sound power:
Aermec determines the value based on the measurements made in compliance with the standard ISO 9614 - 2, respecting Eurovent requirements.

Cooling in Free-Cooling mode:
- entering water temperature 15°C;
- external air temperature 2°C;
- nominal water flow rate;
- compressors off.

♪ **Sound pressure:**
measured in free field
conditions, in cooling mode, at distance of 10m and directivity factor = 2.
In accordance with the ISO 3744
Power supply voltage: 400 V

Technical Data

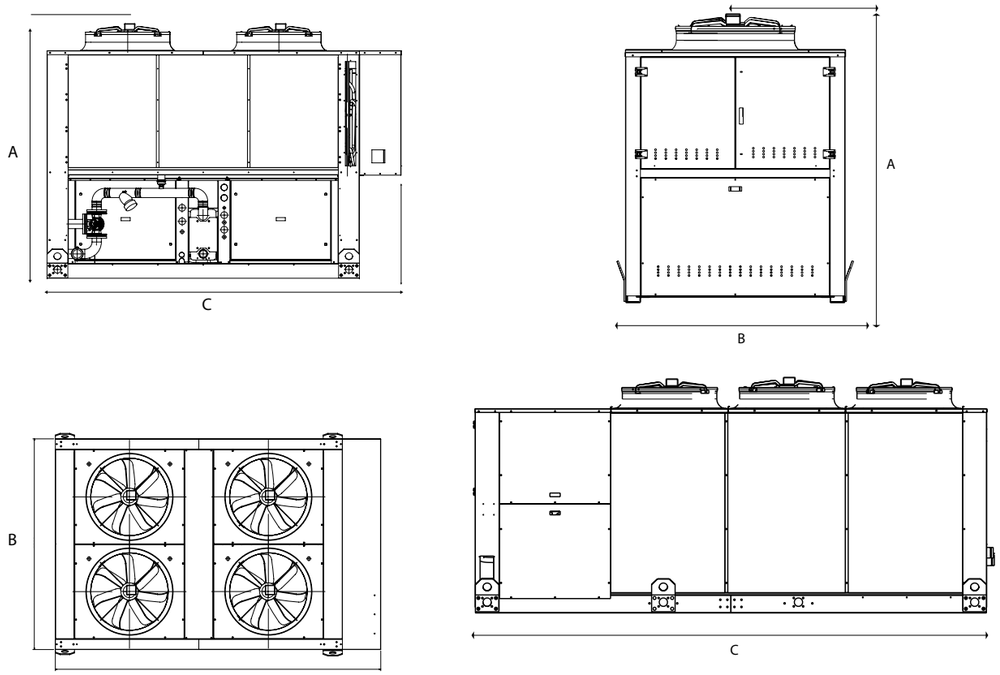
Mod. NRL Free Cooling Glycol free		Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity	kW	All	143	153	170	186	217	242	266	328	361
Total power input	kW	All	7.7	11.1	11.1	11.1	17.3	17.3	17.3	23.2	23.2
Water flow rate	(l/h)	BA	32850	36111	39334	42557	53345	57936	62526	73935	77730
		BE	30440	33734	37106	39206	49665	53259	56853	68770	72329
Total pressure drop	(kPa)	BA	130	94	102	103	108	117	104	108	112
		BE	112	87	94	94	99	105	94	99	102
Input current glycol free	A	BA|BE	16.5	21	21	21	33	34	34	45	45
Sound power	dB(A)	BA|BE	87	88.5	88.5	88.5	91.5	91	90.5	92	94
♪ Sound pressure	dB(A)	BA|BE	55	56.5	56.5	56.5	59.5	59.0	58.5	60.0	62.0
Air flow rate	(m3/h)	BA|BE	56000	79600	78800	78000	115200	114000	112800	155200	153600

Cooling in Free-Cooling Glycol free
- entering water temperature 15°C;
- external air temerature 2°C;
- nominal water flow rate;
- compressors off.

Sound power:
Aermec determines the value based on the measurements made in compliance with the standard ISO 9614 - 2, respecting Eurovent requirements.

♪ **Sound pressure:**
measured in free field
conditions, in cooling mode, at distance of 10m and directivity factor = 2.
In accordance with the ISO 3744
Power supply voltage: 400 V

Dimensions (mm)



Mod. NRL-F / NRL-B		U.M.	Vers.	750	800	900	1000	1250	1400	1500	1650	1800
Height	A	(mm)	A/E	1955	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	(mm)	A/E	1500	2200	2200	2200	2200	2200	2200	2200	2200
Length	C	(mm)	A/E	4350	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	A	(kg)	A/E	1889	2470	2650	2840	3120	3380	3660	4220	4420

Code: SNRLFCUY.01 / 1007

NRL Free-Cooling

Air cooled chiller with axial fans
Cooling capacity from 446 kW to 904 kW

R410A



- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **PUMP ASSEMBLY OPTION**
- **4 REFRIGERANT CIRCUITS**
- **PUMP ASSEMBLY AND BUFFER TANK OPTION**

Characteristics

- Available in 7 sizes
- Refrigerant R410A
- 4 refrigerant circuits
- High efficiency even at part load
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A
- High efficiency scroll compressors
- Axial fans with low sound level
- Solid construction with polyester anti-corrosion painted finish
- Operation up to 44° C ambient in cooling mode
- Operation modes:
  - Free-Cooling only: is the most economical way to use the unit. Only the fans operate by speed control. Cooling is achieved completely from the external air temperature
  - combined Free-Cooling and compressors: the cooling capacity is achieved from the external air temperature combined with compressor operation at full or partial load
  - compressors only: the cooling capacity is provided entirely by the compressors (standard operation of a chiller)
- Versions available:
  - High efficiency
  - High efficiency low noise
  - Glycol free
  - With pump assembly (high head, with/without standby pump)
  - With pump assembly and 700 litre buffer tanks complete with water filter, flow switch, expansion tank, charging point and antifreeze electric heater
  - Electronic expansion valve
  - Inverter fans
- Microprocessor control system of the compressors and fans for the control of the three operating modes (Free-Cooling only, combined Free-Cooling and compressors, and compressors only)
- Display of all operating parameters in 4 languages.
- Simplified remote control panel located up to 50 m distance away with shielded cable. Permits basic control and alarm notifications of the unit
- High efficiency air-water coil (Free-Cooling) with smooth tubes and wavy fins
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-Cooling coils
- High and low pressure transducers (standard for all versions)
- Fan speed controller for low ambient operation. In Free-Cooling mode controls capacity.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** spring anti-vibration mounts Select the AVX model from the compatibility table.
- **GP**: Protection grille protects the external coil from accidental damage.
- **PGS:** Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.
- **PRM1 and PRM2:** FACTORY FITTED ACCESSORY. A manual reset pressure switch wired in series with the existing high pressure switch installed on the compressor discharge line.

Accessory compatibility

Mod. NRL	Vers.	2000	2250	2500	2800	3000	3300	3600
AER485P1	All							
PGS	All							
TRX1	All							
GP	A - E	260 x 2	260 - 350	350 x 2	350 x 2	350 x 2	500 x 2	500 x 2
RIF	A - E	RIFNRL2000	RIFNRL2250	RIFNRL2500	RIFNRL2800	RIFNRL3000	RIFNRL3300	RIFNRL3600
PRM1/PRM2	All							
AVX (00)	A - E	770	776	782	788	794	801	801
AVX (03-04)	A - E	771	777	783	789	795	802	802
AVX (P3-P4)	A - E	772	778	784	790	796	803	803

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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15-16
Code	Size	Compressor	Expansion valve	Model	Heat recovery	Version	Coil	Fan	Power supply	Integrated hydronic module

Code:
NRL
Size:
200, 225, 250, 280, 300, 330, 360
Compressor:
0 - R410A standard compressors
Expansion valve:
° - Standard thermostatic expansion valve
Y - Thermostatic expansion valve with leaving liquid temperature from +4°C down to -6 °C
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
F - Free-cooling
B - Free-cooling glycol free
Heat recovery
° - Without heat recovery
D - With desuperheater (partial heat recovery)
Version:
A - High efficiency
E - High efficiency low noise version
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium (epoxy paint)
Fans:
° - Standard
J - Inverter
Power supply:
° - 400V 3~ 50Hz with circuit breakers
2 - 500V 3~ 50Hz with circuit breakers
Integrated hydronic module:
00 - without pump or buffer tank
03 - single high head pump and buffer tank
04 - single and standby high head pump and buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

WARNING:
The model "B" (Free-cooling, Free-cooling glycol free glycol can not be provided with hydronic kit.

Attention:
– the standard options are shown by the symbol °
Example of configuration code: **NRL2000°F°A°°°00**
This is an NRL unit of size 2000, with standard thermostatic expansion valve, Free-cooling model, without heat recovery, high efficiency, with aluminium condenser coils, standard fans, and electrical panel for compressor motors 400V 3~ 50Hz, and without pump or buffer tank.

Technical Data

Mod. NRL	U.M.	Vers.	2000	2250	*2500	*2800	*3000	*3300	*3600
Cooling capacity	kW	A	494	557	620	674	728	860	904
		E	456	517	578	620	662	800	842
Total power input	kW	A	206	217	228	272	314	318	350
		E	218	229	240	290	338	338	372
Water flow rate	l/h	A	84970	95800	106640	115930	125220	147920	155490
		E	78430	88920	99420	106640	113860	137600	144820
Total pressure drop	kPa	A	81	92	92	98	83	104	107
		E	69	80	80	84	70	90	93
EER	W/W	A	2,40	2,57	2,72	2,48	2,32	2,70	2,58
		E	2,09	2,26	2,41	2,14	1,96	2,37	2,26
Input current	A	A	389	403	417	504	592	597	634
		E	407	421	435	529	624	621	665
Cooling capacity	kW	A	458	486	514	582	652	798	880
		E	446	486	526	576	627	792	887
Total power input	kW	All	15	19	22	22	22	29	29
Water flow rate	l/h	A	85115	95903	106691	115871	125052	147870	155459
		E	78413	88871	99330	106518	113706	137540	144658
Total pressure drop	kPa	A	110	123	123	131	117	140	145
		E	94	107	107	111	97	122	126
EER	W/W	A	30,53	25,58	23,36	26,45	29,64	27,52	30,34
		E	29,73	25,58	23,91	26,18	28,50	27,31	30,59
Input current	A	A/E	30	37	44	44	44	59	59
Maximum current (FLA)	A	A/E	442	495	548	606	664	747	813
Starting current (LRA)	A	A/E	651	763	816	815	873	1015	1081
Compressors/circuits	n°/n°	A/E	8/4	8/4	8/4	10/4	12/4	12/4	12/4
Sound power	dB(A)	A	91,5	93,3	94,5	94,0	93,5	95,0	97,0
		E	85,5	87,3	88,5	88,0	87,5	89,0	91,0
♪ Sound pressure	dB(A)	A	59,5	61,5	62,5	62,0	61,5	63,0	65,0
		E	53,5	55,3	56,5	56,0	55,5	57,0	59,0
Hydraulic connections	ø	All	3"	3"/4"	4"	4"	4"	4"	4"
Air flow rate	m³/h	A	156000	193200	230400	228000	225600	310400	307200
		E	111600	136400	161200	159600	161400	217200	219600
Pump assembly option									
Buffer tank capacity	n°x l	All	2x700	2x700	2x700	2x700	2x700	2x700V	2x700
Input power motor pump	kW	All	13,0	6.5+8.6	17,2	17,2	17,2	24,7	24,7
Input current motor pump	A	All	22,0	11+14.6	29,2	29,2	29,2	42,4	42,4
Useful head (Chiller)	kPa	A	204	242	242	223	224	192	182
		E	223	262	262	250	255	214	206
Useful head (Freecooling)	kPa	A	177	214	214	195	195	165	155
		E	199	239	239	226	231	191	182

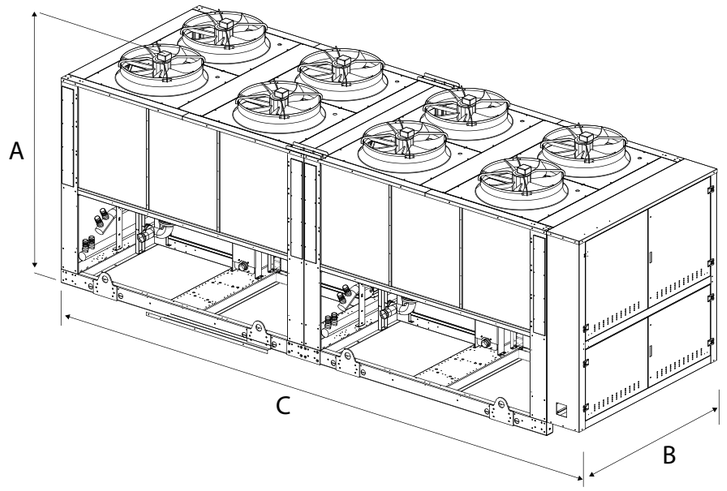
Cooling
- leaving water temperature 7°C;
- external air temperature 35°C;
- Δt = 5 °C;

Sound power:
Aermec determines the value based on the measurements made in compliance with the standard ISO 9614 - 2, respecting Eurovent requirements.

Cooling in Free-Cooling mode:
- entering water temperature 15°C;
- external air temperature 2°C;
- nominal water flow rate;
- compressors off.

♪ **Sound pressure:**
measured in free field conditions, in cooling mode, at distance of 10m and directivity factor = 2.
In accordance with the ISO 3744
Power supply voltage: 400 V

Dimensions (mm)



Mod. NRL-F / NRL-B		U.M.	Vers.	2000	2250	2500	2800	3000	3300	3600
Height	A	(mm)	A/E	2450	2450	2450	2450	2450	2450	2450
Width	B	(mm)	A/E	2200	2200	2200	2200	2200	2200	2200
Length	C	(mm)	A/E	6400	7250	8100	8100	8100	11100	11100
Weight empty		(Kg)	A/E	5670	6190	6700	7120	7580	9060	9330

Code: SNRLMSFCUY.02 / 1011

AERMEC

NRC

Air cooled chillers, heat pumps and condensing units with centrifugal fans
Capacities from 46 to 264 kW

R407C

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT programme: LCP / A / P / C The products involved can be found at the website www . eurovent-certification. com



- **STANDARD VERSION**
- **OPTION FOR PUMP**
- **OPTION FOR PUMP AND BUFFER TANK**

Features

- Available in 13 sizes
- Cooling only, heat pump and condensing unit versions
- All versions manufactured with refrigerant R407c
- Options for partial or total heat recovery
- 4 versions available:
  - With loose supplied water filter and differential pressure switch
  - With pump only
  - With low head pump assembly, 500 litre buffer tank (700 litres for sizes 800 to 1000) with 300 W anti-freeze heater (2 x 300 W for sizes 750 to 1000), water filter fitted, and flow switch
  - With high head pump assembly, 500 litre buffer tank (700 litres for sizes 800 to 1000) with 300 W anti-freeze heater (2 x 300 W for sizes 750 to 1000), water filter fitted, and flow switch
- Cooling only version can be requested for low leaving liquid temperatures 4 °C down to -6 °C. This option must be specified at the time of order
- All the versions can be requested with high static pressure fans which allows nominal air flow rates with higher static pressure installations. This option must be specified at time of order. Please refer to the technical manuals for technical data
- The versions with pump and/or buffer tank are also fitted with automatic air vent valve, filling point, expansion tank and water pressure relief valve
- High efficiency scroll compressors with low power input
- Modulating microprocessor control system
- Functional parameters can be displayed in 4 languages
- Simplified remote control panel. Provides access to all the unit basic control functions and alarm notification
- High efficiency plate heat exchangers
- Evaporator trace heating
- Compressor crank case heater
- Low pressure transducer (standard on heat pump models)
- High pressure transducer (standard on heat pump models and cooling only sizes 500 to 1000)
- Air discharge: top discharge for sizes 275 to 550 and front discharge for sizes 600 to 1000 (with top discharge on request)
- Centrifugal fans
- Compact size
- Metallic protective cabinet with anti-corrosion polyester paint

Accessories

- **AER485**: RS-485 interface for supervision systems with MODBUS protocol.
- **AVX**: Spring anti-vibration mounts. Select the AVX model by using the compatibility table.
- **DR**: Low temperature device, consisting of a damper for installation on the fan outlet, modulates air flow to the condenser based on the pressure transducer value. The DR 202 - 402 accessories also include the TP2 high pressure transducers. **Accessory obligatory in D versions.**
- **DRE**: Current soft starter device (about 30% reduction 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
- **PGS**: Daily/Weekly Programmer. Allows two daily time-clock programmes (two switch on/off cycles) and different programmes for each day of the week.
- **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.**
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **TP 1**: Low pressure transducer, providing display of operating pressure (one per circuit). Standard on heat pump models.
- **TP 2**: High pressure transducer, providing display on the microprocessor controller of working pressure (one per circuit). Standard on heat pump models and cooling only sizes 500 to 1000.
- **VT**: Anti-vibration mounts, set of four mounts to be installed under the unit base.
- **DUALCHILLER**: Simplified control system to switch on/off and control two chillers in a single system (using Aermec GR3 command), as if they were a single unit.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

Accessory compatibility

Mod.	275	300	325	350	500	550	600	650	700	750	800	900	1000
AER485	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
DUALCHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AVX							401/402*	401/402*	402/403*	402/403*	404/406*	404/406*	405/407*
DR 200	✔**	✔**	✔**										
DR 400				✔**	✔**	✔**							
DR 202	✔	✔	✔										
DR 402				✔	✔	✔							
DR 600							✔	✔	✔	✔			
DR 800											✔	✔	✔
DRE 275	✔												
DRE 300		✔											
DRE 325			✔	✔									
DRE 10					✔ (x2)	✔	✔ (x2)						
DRE 15					✔	✔ (x2)	✔ (x2)	✔ (x4)	✔ (x4)	✔ (x2)			
DRE 25										✔ (x2)	✔ (x4)	✔ (x2)	
DRE 30												✔ (x2)	✔ (x4)
PGS	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
RIF	62	62	62	82	63	63	64	64	64	64	64	74	84
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
TP 1	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***
TP 2	✔ (x2)***	✔ (x2)***	✔ (x2)***	✔ (x2)***									
VT 14*				✔	✔	✔							
VT 16*	✔	✔	✔										
VT 17					✔	✔							
VT 2	✔	✔	✔	✔									

DR = Accessory obligatory for D versions.
* = To be used in versions with buffer tank.
** = To be used in heat pump models.
*** = Standard on heat pump models.
N.B. = number in brackets indicates required quantity.

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.

Configuration fields:

1 2 3 — Code
4 5 6 7 — Size
8 — Field of use
9 — Model
10 — Heat recovery
11 — Version
12 — Coil
13 — Evaporator
14 — Power supply
15 16 — Integrated hydronic module

Code:
NRC
Size:
0275, 0300, 0325, 0350, 0500, 0550
0600, 0650, 0700, 0750, 0800, 0900, 1000
Field of use:
° - Standard with leaving water above +4 °C
Y - Low temperature with leaving liquid down to -6 °C
Model:
° - Cooling only
H - Heat pump
Heat recovery:
° - Without heat recovery
D - With desuperheaters (partial heat recovery)
T - With total heat recovery
Version:
° - Standard
L - Low noise
Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Coated aluminium
Evaporator:
° - To PED regulations
G - To TÜV-D regulations (Germany)
C - Condensing unit (without evaporator)

Power supply:
° - 400V 3~ 50Hz* with circuit breakers
4 - 230V 3~ 50Hz with circuit breakers
9 - 500V 3~ 50Hz with circuit breakers
Integrated hydronic module:
00 - without pump or buffer tank
01 - single 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
05 - single low head pump and buffer tank (with holes for immersion heaters)
06 - single and standby low head pump and buffer tank (with holes for immersion heaters)
07 - single high head pump and buffer tank (with holes for immersion heaters)
08 - single and standby high head pump and buffer tank (with holes for immersion heaters)
P1 - single low head pump without buffer tank
P2 - single and standby low head pump without buffer tank
P3 - single high head pump without buffer tank
P4 - single and standby high head pump without buffer tank

Attention:
– standard options are shown by the symbol °
– the following options are not available for heat pump models: Y, T, L and C
* (400V 3N~ 50Hz sizes 275,300, 325, 350, 500, 550, 600, 650, 700, 750 / 400V 3~ 50Hz 800, 900, 1000)

Technical Data

Cooling only models	Vers.	275	300	325	350	500	550	600	650	700	750	800	900	1000
Cooling capacity (kW)	°	51	59	67	76	89	97	120	136	156	184	214	238	264
	L	46	54	62	70	81	89	110	126	142	168	194	216	238
Total input power (kW)	°	22,0	26,1	29,4	32,3	37,6	40,4	52,0	58.0	65,5	77,0	90,0	100,0	112,5
	L	22,7	26,3	29,7	33,1	40,0	43,0	47,5	54,0	62,0	72,5	83,0	94,0	104,5
Input current (A)	°	40,3	46,5	51,3	57,5	68,1	72,1	93,4	101,5	117,0	134,5	153,7	171,7	193,2
	L	40,5	45,8	50,7	57,7	68,7	73,3	82,8	91,9	107,4	122,8	138,1	155,8	173,4
Water flow rate (l/h)	°	8770	10150	11520	13070	15310	16680	20640	23390	26830	31650	36810	40940	45410
	L	7910	9290	10660	12040	13930	15310	18920	21670	24420	28900	33370	37150	40940
Pressure drop (kPa)	°	37,0	32,2	31,6	43,0	27,6	22,4	32,0	28,3	36,5	27,8	35,6	30,3	30,6
	L	30,3	27,0	27,1	36,5	22,6	19,0	27,2	24,2	30,5	23,2	29,6	25,0	25,0
Total air flow rate (m^3/h)	°	16000	22000	22000	26000	27000	27000	45000	45000	50000	50000	60000	68000	68000
	L	11000	15500	15500	18000	19000	19000	31500	31500	35000	35000	42000	47600	47600
♪ Sound pressure dB(A)	°	53.0	53.0	54.0	56.0	56.0	56.0	58.0	58.0	59.0	59.0	60.0	60.0	60.0
	L	49.0	49.0	50.0	52.0	52.0	52.0	54.0	54.0	55.0	55.0	56.0	56.5	56.5
Compressors / circuits (n.)	Tutte	2 / 2	2 / 2	2 / 2	2 / 2	3 / 2	3 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Capacity steps (n.)	Tutte	2	2	2	2	3	3	4	4	4	4	4	4	4
Fans (n.)	Tutte	2	2	2	2	2	2	3	3	3	3	4	4	4
Fan speed (rpm)	°	630	570	570	590	600	600	600	600	580	580	650	600	700
	L	540	500	520	500	510	510	520	520	500	500	580	530	600
Maximum current (A)	Tutte	54	63	71	80	93	99	131	143	164	190	225	245	277
Starting current (A)	°	153	161	165	208	219	223	207	215	267	318	337	404	424
	L	152	158	163	206	217	221	205	212	266	315	334	401	419
Crank case electric heater (W)	Tutte	2x75	2x75	2x75	2x75	3x75	3x75	4x75	4x75	4x75	2x75 2x130	4x130	4x130	4x130
Anti-freeze heater (W)	Tutte	300	300	300	300	300	300	300	300	300	2x300	2x300	3x300	2x300
Water connections (Ø) *	00-P1/P4	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	V3"	V3"	V3"
	01/08	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	V3"	V3"	V3"
Buffer tank capacity (l)	Tutte	500	500	500	500	500	500	500	500	500	500	700	700	700
Available head (kPa) - gr1**	°	127	127	122	104	131	126	75	90	103	37	97	95	82
	L	142	138	131	119	149	143	95	110	132	75	113	116	102
Available head (kPa) - gr2**	°	178	173	168	154	195	193	177	163	146	105	215	212	195
	L	186	180	176	164	203	203	183	168	154	130	235	232	215

Heat pumps model		275 H	300 H	325 H	350 H	500 H	550 H	600 H	650 H	700 H	750 H	800 H	900 H	1000 H
Cooling capacity	kW	49	57	65	74	86	94	118	134	152	178	204	230	254
Total input power	kW	21,6	25,6	28,8	31,7	36,9	39,6	51,0	56.5	64,0	76,0	89,5	100,0	112,0
Input current	A	39,7	45,8	50,5	56,7	67,1	71,0	92,0	99,8	115,3	133,5	153,7	172,7	192,9
Water flow rate	l/h	8430	9800	11180	12730	14790	16170	20300	23050	26140	30620	35090	39560	43690
Pressure drop	kPa	34,2	30,3	32,5	42,2	25,4	20,7	30,5	27,0	34,8	26,0	32,8	28,0	28,3
Heating capacity	kW	58	67	77	87	101	111	136	155	175	207	239	267	295
Total input power	kW	25,0	29,5	33,0	36,2	42,5	45,7	57,5	63,5	71,5	83,5	96,5	108,0	119,5
Input current	A	44,0	50,7	56,1	62,7	74,4	78,9	101,9	110,9	127,4	145,8	166,2	186,5	206,9
Water flow rate	l/h	9980	11520	13248	14960	17370	19090	23390	26660	30100	35600	41110	45920	50740
Pressure drop	kPa	42,0	36,8	40,9	51,7	32,2	26,5	39,9	40,0	41,0	31,0	45,2	42,2	44,9
Total air flow rate	m^3/h	16000	22000	22000	26000	27000	27000	45000	45000	50000	50000	60000	68000	68000
♪ Sound pressure	dB (A)	53.0	53.0	54.0	56.0	56.0	56.0	58.0	58.0	59.0	59.0	60.0	60.0	60.0
Compressors / circuits	n.	2 / 2	2 / 2	2 / 2	2 / 2	3 / 2	3 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Capacity steps	n.	2	2	2	2	3	3	4	4	4	4	4	4	4
Fans	n.	2	2	2	2	2	2	3	3	3	3	4	4	4
Fan speed	rpm	630	570	570	590	600	600	600	600	580	580	650	600	700
Maximum current	A	54	63	71	80	93	99	131	143	164	190	225	245	277
Starting current	A	155	162	168	210	222	227	213	223	275	326	346	414	435
Crank case electric heater	W	2x75	2x75	2x75	2x75	3x75	3x75	4x75	4x75	4x75	2x75 2x130	4x130	4x130	4x130
Anti-freeze heater	W	300	300	300	300	300	300	300	300	300	2x300	2x300	2x300	2x300
Water connections (Ø) *	00-P1/P4	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	M/2"	V3"	V3"	V3"
	01/08	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	F/2"½	V3"	V3"	V3"
Buffer tank capacity	l	500	500	500	500	500	500	500	500	500	500	700	700	700
Available head - gr1**	kPa	137	134	126	108	146	132	80	95	115	55	105	102	88
Available head - gr2**	kPa	180	176	170	157	196	196	180	168	152	115	225	222	204

* = M: male; F: female; V: Victaulic.
** = gr1 (Low head pump assembly); gr2 (High head pump assembly)

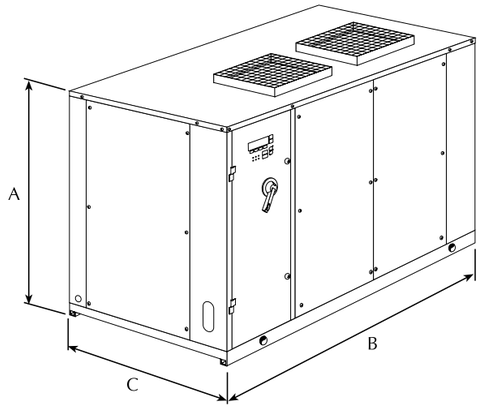
Performance values refer to the following conditions:

♪ Sound pressure measured in free field conditions at a distance of 10 m and directivity factor = 2. In accordance with ISO 3744.
- Power supply: 400 V

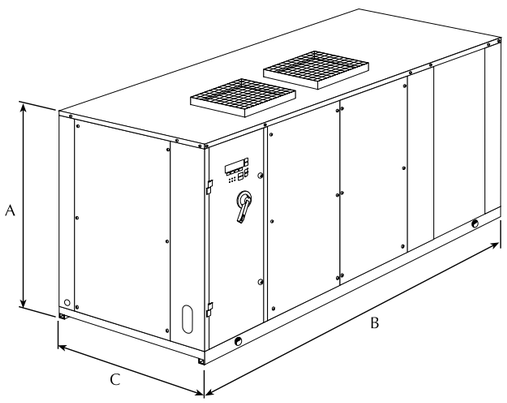
Cooling
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5°C

Heating
- leaving water temperature 50 °C
- external air temperature 7 °C db / 6 °C wb
- Δt = 5°C

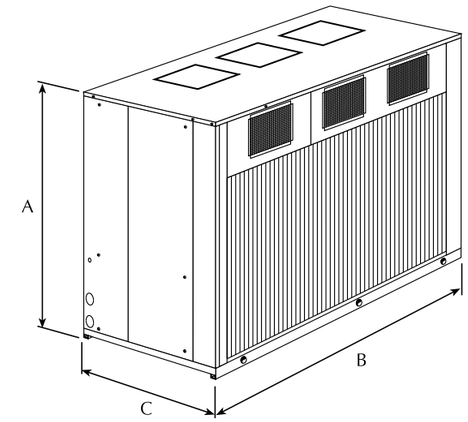
Dimensions (mm)



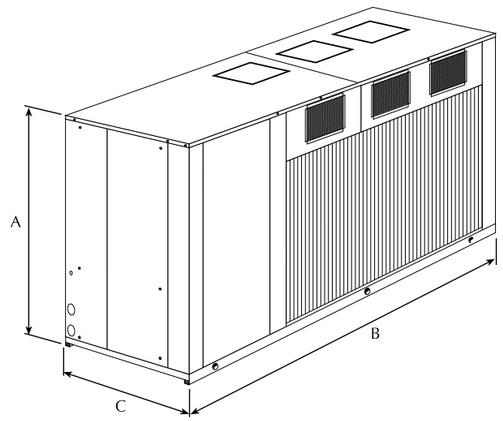
NRC 275 - 550 without buffer tank



NRC 275 - 550 with buffer tank



NRC 600 - 1000 without buffer tank



NRC 600 - 1000 with buffer tank

Model. NRC 00 (without buffer tank)

		275	300	325	350	500	550	600	650	700	750	800	900	1000
A	mm	1763	1793	1793	1763	1963	1963	2288	2288	2288	2288	2295	2295	2295
B	mm	2100	2100	2100	2450	2450	2450	3750	3750	4550	4550	4950	4950	4950
C	mm	950	950	950	950	950	950	1100	1100	1100	1100	1300	1300	1300
Weight (kg)	NRC	629	665	699	777	904	919	1481	1498	1737	1918	2670	2700	2960
	NRC H	689	737	748	841	983	999	1593	1610	1831	2001	2797	2827	3095

Model NRC P1/P4 (with pumping assembly)

		275	300	325	350	500	550	600	650	700	750	800	900	1000
A	mm	1763	1793	1793	1763	1963	1963	2288	2288	2288	2288	2295	2295	2295
B	mm	2100	2100	2100	2450	2450	2450	3750	3750	4550	4550	4950	4950	4950
C	mm	950	950	950	950	950	950	1100	1100	1100	1100	1300	1300	1300
Weight (kg)	NRC	663	699	733	811	938	953	1659	1676	1914	2096	2870	2900	3160
	NRC H	723	771	782	875	1017	1033	1771	1788	2009	2179	2997	3027	3295

Mod. NRC 01/08 (with buffer tank unit and pump)

		275	300	325	350	500	550	600	650	700	750	800	900	1000
A	mm	1763	1793	1793	1763	1963	1963	2288	2288	2288	2288	2295	2295	2295
B	mm	2950	2950	2950	3300	3300	3300	4550	4550	5350	5350	5750	5750	5750
C	mm	950	950	950	950	950	950	1100	1100	1100	1100	1300	1300	1300
Weight (kg)	NRC	827	891	901	996	1121	1138	1743	1760	1998	2180	3070	3100	3350
	NRC H	865	920	930	1030	1194	1210	1855	1872	2093	2263	3190	3220	3482

Note: the weights given for the versions with buffer tank refer to the empty weight.

The technical data given in this documentation are not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) -

Cod.: SNRCUY.13 / 1007

NS

Air cooled chillers with axial fans and twin-rotor screw compressor
Cooling capacity from 238 to 1600 kW

R134a



Characteristics

- Available in 32 sizes
- Cooling only version
- Manufactured with refrigerant R134a
- Options for partial or total heat recovery
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- **Pump assembly option** (see Unit Configurator) that includes:
  - single pump, or one run plus one standby pump
  - two 25 litre expansion tanks.

- Standard Version (°):
  - **Operating limit up to 42 °C** external air temperature
  - Compressor acoustical enclosure for low noise operation.
- Version L:
  - **Operating limit up to 42 °C** external air temperature
  - Compressor acoustical enclosure for low noise operation
  - Fan speed control
  - Hot gas discharge muffler.
- High efficiency Version A:
  - **Operating limit up to 48 °C** external air temperature
  - Compressor acoustical enclosure for low noise operation.
- High efficiency Version E:
  - **Operating limit up to 48 °C (46 °C for sizes 5402 to 5702)** external air temperature
  - Compressor acoustical enclosure for low noise operation
  - Fan speed control
  - Hot gas discharge muffler.
- Modulating capacity control microprocessor system
- Multilingual display panel
- Shell and tube evaporator optimised for refrigerant R134a
- Axial fans for extremely quiet operation
- Compact sizes
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **DCPX:** Low ambient device for cooling operation below 19 °C down to -10 °C. Standard for Versions D, L, and E.
- **KRS: Evaporator trace heating. Factory fitted only.**
- **KRSDES/KRSREC: E**vaporator and heat recovery exchangers trace heating. Factory fitted **only.**
- **GP: Protective** grille. Condenser coil external protection against accidental or hail damage**. Factory fitted.**
- **PRV3: Remote control of the chiller operating functions.**
- **RIFNS**: 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. For compatibility of the** RIF device refer to the technical manual.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **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.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

Accessory compatibility

Mod. NS	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AK-ACUSTIC KIT (*)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Mod. NS	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x3)	✔(x3)	✔(x3)	✔(x3)	✔(x3)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AK-ACUSTIC KIT (*)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Mod. NS °/L (*)	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
GP 300M (2)	✔	✔	✔	✔												
GP 400M (2)					✔	✔										
GP 300B (2)							✔	✔	✔							
GP 400B (2)										✔	✔	✔	✔			
GP 500B (2)														✔	✔	
GP 300M+300M (2)																✔
KRS	KRS10	KRS10	KRS10	KRS10	KRS11	KRS11	KRS10	KRS10	KRS10	KRS10	KRS10	KRS10	KRS10	KRS11	KRS11	KRS12
KRSDES(***)	KRS10DES	KRS10DES	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS12DES
KRSREC(***)	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS11REC	KRS11REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS11REC	KRS11REC	KRS12REC

Mod. NS °/L (*)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP 300M+300M	✔	✔														
GP 300M+400M			✔	✔	✔											
GP 400M+400M						✔	✔									
GP 400M+500M								✔								
GP 500M+500M									✔	✔	✔					
GP 300M+300M+400M												✔				
GP 300M+400M+400M													✔	✔		
GP 400M+400M+400M															✔	✔
KRS	KRS12	KRS12	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRSDES(***)	KRS12DES	KRS12DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KRSREC(***)	KRS12REC	KRS12REC	KRS12REC	KRS13REC	KRS13REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS15REC	KRS16REC	KRS16REC	KRS17REC	KRS17REC

Mod. NS A/E (*)	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
GP 300M	✔	✔	✔													
GP 400M				✔												
GP 500M					✔	✔										
GP 300B							✔	✔								
GP 400B									✔							
GP 500B										✔	✔	✔	✔	✔	✔	
GP 300M+300M																✔
KRS	KRS10	KRS10	KRS11	KRS10	KRS11	KRS11	KRS11	KRS11	KRS10	KRS10	KRS11	KRS11	KRS11	KRS11	KRS11	KRS13
KRSDES(***)	KRS10DES	KRS10DES	KRS11DES	KRS10DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
KRSREC(***)	KRS10REC	KRS10REC	KRS11REC	KRS10REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS10REC	KRS10REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS13REC

Mod. NS A/E (*)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP 300M+300M	✔															
GP 300M+400M		✔														
GP 400M+400M			✔													
GP 400M+500M				✔	✔											
GP 500M+500M						✔	✔	✔	✔	✔	✔					
GP 400M+400M+500M												✔				
GP 400M+500M+500M													✔	✔		
GP 500M+500M+500M															✔	✔
KRS	KRS14	KRS13	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRSDES(***)	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KRSREC(***)	KRS14REC	KRS13REC	KRS12REC	KRS13REC	KRS13REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS15REC	KRS16REC	KRS16REC	KRS17REC	KRS17REC

Mod. NS °/L	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AVX	502	502	502	501	506	506	502	502	503	504	505	505	505	511	511	509
RIFNS	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2602	2802	3002
Mod. NS °/L	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AVX	509	509	507	508	508	516	516	532	533	533	534	517	515	515	523	523
RIFNS	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203

Mod. NS A/E	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AVX	502	502	502	506	510	510	503	503	504	511	511	511	511	511	511	509
RIFNS	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2602	2802	3002
Mod. NS A/E	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AVX	509	513	516	519	519	521	521	535	535	535	535	526	528	528	531	531
RIFNS	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203

Note:
(*) Accessory only factory fitted
(**) Accessory supplied as standard on Versions L, E, and D
The number in brackets e.g. (x3) indicates the quantity.
(***) Accessory KRSDES/KRSREC includes evaporator and heat recovery exchangers trace heating

COMPATIBILITY DCPX

Mod. NS °	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
DCPX (**)	65(x1)	65(x1)	65(x1)	65(x1)	69(x1)	69(x1)	69(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)
Mod. NS °	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
DCPX (**)	68(x1)	68(x1)	68(x1)	72(x1)	72(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	68+76	72+76	72+76	73+76	73+76
Mod. NS A	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
DCPX (**)	65(x1)	65(x1)	65(x1)	69(x1)	69(x1)	69(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)	68(x1)
Mod. NS A	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
DCPX (**)	68(x1)	72(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73+76	73+76	73+76	73+76	73+76

DCPX VERSION WITH HIGH STATIC PRESSURE FANS

Mod. NS °	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
	69(x1)	**69(x1)**	**69(x1)**	**69(x1)**	**69(x1)**	**69(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**73(x1)**
Mod. NS °	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	73(x1)	74(x1)	75(x1)	73+76	73+76	73+76	73+76	73+76
Mod. NS A	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
	69(x1)	**69(x1)**	**69(x1)**	**69(x1)**	**70(x1)**	**70(x1)**	**68(x1)**	**68(x1)**	**68(x1)**	**73(x1)**	**73(x1)**	**73(x1)**	**73(x1)**	**73(x1)**	**73(x1)**	**73(x1)**
Mod. NS A	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
	73(x1)	73(x1)	73(x1)	74(x1)	74(x1)	75(x1)	75(x1)	75(x1)	75(x1)	75(x1)	75(x1)	73+77	74+77	74+77	75+77	75+77

Note:
(*) Accessory only factory fitted
(**) Accessory supplied as standard on Versions L, E, and D
The number in brackets e.g. (x3) indicates the quantity.

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.

Configuration fields:

1 2 Code | 3 4 5 6 Size | 7 Expansion device | 8 Model | 9 Heat recovery | 10 Version | 11 Condenser coil | 12 Fan | 13 Power supply | 14 15 Pump

Code:
NS
Size:
1251, 1401, 1601, 1801, 2101, 2401, 1402, 1602, 1802, 2002, 2202 2352, 2502, 2652, 2802,3002, 3202,3402, 3602, 3902,4202,4502, 4802, 5002, 5202, 5402, 5702, 6003, 6303, 6603, 6903, 7203
Expansion device:
° - R134a thermostatic expansion valve, minimum leaving water temperature down to +4°C
Y - R134a thermostatic expansion valve, minimum leaving liquid temperature down to -6 °C
X - R134a electronic expansion valve, minimum leaving liquid temperature down to -6 °C
Model:
° - Cooling only, heat exchanger to PED regulations
C - Condensing unit
Heat recovery:
° - Without heat recovery
D - With desuperheaters (partial heat recovery)
T - With total heat recovery
Version:
° - Standard
L - Standard low noise version
A - High efficiency
E - High efficiency low noise version
Condenser coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium
Fan:
° - Standard
M - High static pressure
J - Inverter
Power supply:
° - 400V 3~ 50Hz with fuses
2 - 230V 3~ 50Hz with fuses *
4 - 230V 3~ 50Hz with circuit breakers *
* (not available for sizes: 1251~2401, 2352~7203)
5 - 500V 3~ 50Hz with fuses **
8 - 400V 3~ 50Hz with circuit breakers
9 - 500V 3~ 50Hz with circuit breakers **
** (not available for sizes: 1801~2401, 3402~7203)
Pump:
00 - Without pump assembly
PA - Pump assembly (Pump A)
PB - Pump assembly (Pump A and standby pump)
PC - Pump assembly (Pump C)
PD - Pump assembly (Pump C and standby pump)
PE - Pump assembly (Pump E)
PF - Pump assembly (Pump E and standby pump)
PG - Pump assembly (Pump G)
PH - Pump assembly (Pump G and standby pump)
PJ - Pump assembly (Pump J)
PK - Pump assembly (Pump J and standby pump)

Attention:
– the standard options are shown by the symbol °
– options D - T - C are not compatible with option Y
– 500V 3~50Hz power supply is compatible only with high static pressure fans option (M)
– sizes 5002-5202-5402-5702 are available only with electronic expansion valve (X)

Example of the configuration fields: **NS1401LR8PA**
This is an NS unit with of size 1401, standard low noise version, with copper condenser coil, power supply 400V 3~ 50Hz with circuit breakers, and pump assembly with only pump A.
Since each option is uniquely identified it is not neccessary to indicate the standard options (represented by °) in the unit configurator.

Technical Data

Mod. NS	**U.M.**	**Vers.**	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**
Cooling capacity	kW	°	259	294	336	385	443	493	282	317
		L	238	265	308	361	412	454	259	287
		A	276	314	347	420	466	533	304	345
		E	252	291	330	391	432	497	273	314
Total input power	kW	°	91	108	117	145	166	180	102	121
		L	97	113	124	150	170	185	106	125
		A	88	97	104	134	150	165	97	109
		E	90	101	109	140	155	172	101	115
Water flow rate	l/h	°	44550	50570	57790	66220	76200	84800	48500	54520
		L	40940	45580	52980	62090	70860	78090	44550	49360
		A	47470	54010	59680	72240	80150	91680	52290	59340
		E	43340	50050	56760	67250	74300	85480	46960	54010
Pressure drop	kPa	°	42	44	45	58	37	43	39	47
		L	35	36	38	51	32	36	33	39
		A	45	39	25	45	38	47	30	39
		E	38	33	23	39	33	41	24	32
EER	W/W	°	2,85	2,72	2,87	2,66	2,67	2,75	2,77	2,62
		L	2,45	2,34	2,48	2,41	2,42	2,45	2,44	2,29
		A	3,14	3,24	3,34	3,13	3,11	3,23	3,13	3,17
		E	2,80	2,88	3,03	2,79	2,79	2,89	2,70	2,73
ESEER		°	3,81	3,75	3,70	3,73	3,78	3,76	3,88	3,72
		L	3,70	3,64	3,59	3,62	3,67	3,65	3,76	3,61
		A	4,22	4,24	4,30	4,24	4,20	4,28	4,20	4,22
		E	4,09	4,11	4,17	4,11	4,07	4,15	4,07	4,09
Total input current	A	°	159	187	197	238	280	301	177	207
		L	162	192	206	244	284	307	180	212
		A	154	172	181	222	256	279	171	190
		E	152	170	182	225	255	283	170	194
Maximum current (LRA)	A	°-L	236	236	236	331	348	388	269	309
		A-E	236	236	236	338	355	395	269	309
Starting current (FLA)	A	°-L	381	425	425	486	614	678	245	283
		A-E	381	425	425	493	621	685	245	283
Compressors	n°	All	1	1	1	1	1	1	2	2
Fan air flow rate	(m^3/h)	°	116000	116000	110000	110000	150000	145000	116000	116000
		L	82000	82000	82000	82000	110000	104000	82000	82000
		A	110000	106000	106000	136000	180000	174000	106000	106000
		E	70000	74000	81500	94000	113000	118000	74000	77000
Number of fans		°-L	6	6	6	6	8	8	6	6
		A-E	6	6	6	8	10	10	6	6
♪ Sound power	dB(A)	°	94	95	97	97	98	98	96	97
		L	86	87	89	89	90	90	88	89
		A	94	95	97	97	98	98	96	97
		E	86	87	89	89	90	90	88	89
♪♪ Sound pressure	dB(A)	°	62	63	65	65	66	66	64	65
		L	54	55	57	57	58	58	56	57
		A	62	63	65	65	66	66	64	65
		E	54	55	57	57	58	58	56	57

Power supply = 400V 3~ 50Hz.
Performance values refer to the following conditions:

♪ Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

♪♪ Sound pressure measured in free field over a reflective plane (directivity factor Q=2) at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Cooling:

- entering water temperature 12 °C
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

Technical Data

Mod. NS	U.M.	Vers.	1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	kW	(°)	358	404	450	486	503	541	578	*629
		L	325	372	420	443	459	495	530	573
		A	397	450	495	519	543	577	*612	*661
		E	364	410	453	478	503	539	574	*622
Total input power	kW	(°)	138	154	171	177	187	202	216	225
		L	142	160	181	185	198	211	230	237
		A	127	144	157	166	173	182	197	201
		E	130	150	161	171	181	192	207	210
Water flow rate	l/h	(°)	61580	69490	77400	83590	86520	93050	99420	108190
		L	55900	63980	72240	76200	78950	85140	91160	98560
		A	68280	77400	85140	89270	93400	99240	105260	113690
		E	62610	70520	77920	82220	86520	92710	98730	106980
Pressure drop	kPa	(°)	53	36	40	48	50	47	53	44
		L	44	31	35	40	42	39	45	37
		A	35	44	39	42	46	48	55	32
		E	29	37	33	36	39	42	48	28
EER	W/W	(°)	2,59	2,62	2,63	2,74	2,70	2,68	2,67	2,79
		L	2,28	2,32	2,33	2,39	2,32	2,34	2,30	2,41
		A	3,13	3,13	3,15	3,13	3,14	3,17	3,11	3,29
		E	2,80	2,73	2,81	2,80	2,78	2,81	2,77	2,96
ESEER		(°)	3,69	3,59	3,56	3,82	3,81	3,73	3,78	3,68
		L	3,58	3,48	3,45	3,71	3,70	3,62	3,67	3,57
		A	4,20	4,23	4,24	4,23	4,25	4,25	4,21	4,28
		E	4,07	4,10	4,11	4,10	4,12	4,12	4,08	4,15
Total input current	A	(°)	218	261	295	306	322	347	371	384
		L	221	266	301	310	333	354	381	398
		A	215	248	274	288	301	320	339	353
		E	214	247	277	290	303	320	344	352
Maximum current (LRA)	A	(°)-L	345	372	392	425	458	458	458	472
		A-E	352	379	399	432	465	465	465	472
Starting current (FLA)	A	(°)-L	325	403	420	480	507	551	553	567
		A-E	332	410	427	487	514	558	560	567
Compressors	n°	All	2	2	2	2	2	2	2	2
Fan air flow rate	(m^3/h)	(°)	110000	145000	145000	145000	145000	152000	152000	226000
		L	82000	104000	104000	104000	104000	108000	108000	164000
		A	144000	187500	180000	176500	173000	173000	173000	212000
		E	96000	124500	120000	123000	126000	130000	136000	155500
Number of fans		(°)-L	6	8	8	8	8	8	8	12
		A-E	8	10	10	10	10	10	10	12
♪ Sound power	dB(A)	(°)	97	98	98	97	98	98	98	99
		L	89	90	90	90	90	90	91	90
		A	97	98	98	97	98	98	98	99
		E	89	90	90	90	90	90	91	90
♪♪ Sound pressure	dB(A)	(°)	65	66	66	65	66	66	66	66
		L	57	58	58	58	58	59	59	57
		A	65	66	66	65	66	66	66	66
		E	57	58	58	58	58	58	59	57

Power supply = 400V 3~ 50Hz.
Performance values refer to the following conditions:

♪ Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

♪♪ Sound pressure measured in free field over a reflective plane (directivity factor Q=2) at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Cooling:

- entering water temperature 12 °C
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

Technical Data

Mod. NS	U.M.	Vers.	*3202	*3402	*3602	*3902	*4202	*4502	*4802	*5002
Cooling capacity	kW	(°)	671	721	771	828	879	936	987	1063
		L	616	669	722	773	815	866	907	984
		A	695	767	839	885	953	999	1066	1155
		E	660	721	782	822	888	928	994	1088
Total input power	kW	(°)	235	262	290	311	324	345	359	390
		L	248	274	300	320	335	355	370	405
		A	208	238	268	284	298	314	329	360
		E	218	249	280	295	312	327	344	376
Water flow rate	l/h	(°)	115410	124010	132610	142420	151190	160990	169760	182838
		L	105950	115070	124180	132960	140180	148950	156000	169250
		A	119540	131920	144310	152220	163920	171830	183350	198662
		E	113520	124010	134500	141380	152740	159620	170970	187138
Pressure drop	kPa	(°)	38	50	58	46	50	40	43	40
		L	32	43	51	40	43	34	36	34
		A	25	35	45	41	46	43	47	42
		E	23	31	39	35	40	37	41	37
EER	W/W	(°)	2,86	2,75	2,66	2,66	2,71	2,71	2,75	2,73
		L	2,48	2,44	2,41	2,42	2,43	2,44	2,45	2,43
		A	3,34	3,22	3,13	3,12	3,20	3,18	3,24	3,21
		E	3,03	2,90	2,79	2,79	2,85	2,84	2,89	2,89
ESEER		(°)	3,68	3,68	3,68	3,73	3,73	3,73	3,67	3,71
		L	3,57	3,57	3,57	3,62	3,62	3,62	3,56	3,60
		A	4,30	4,26	4,19	4,18	4,24	4,17	4,17	4,25
		E	4,17	4,13	4,06	4,05	4,11	4,04	4,04	4,12
Total input current	A	(°)	394	435	477	519	540	582	603	648
		L	411	450	488	527	551	591	613	670
		A	362	403	444	478	501	535	558	614
		E	364	407	450	480	508	538	566	626
Maximum current (LRA)	A	(°)-L	472	567	662	679	719	736	776	866
		A-E	472	574	676	693	733	750	790	880
Starting current (FLA)	A	(°)-L	567	628	654	778	825	900	900	1051
		A-E	567	635	661	792	839	914	914	1065
Compressors	n°	All	2	2	2	2	2	2	2	2
Fan air flow rate	(m^3/h)	(°)	220000	220000	220000	260000	255000	295000	290000	297000
		L	164000	164000	164000	192000	186000	214000	208000	212000
		A	212000	242000	272000	316000	310000	354000	348000	346000
		E	163000	175500	188000	207000	212000	231000	236000	254000
Number of fans		(°)-L	12	12	12	14	14	16	16	16
		A-E	12	14	16	18	18	20	20	20
♪ Sound power	dB(A)	(°)	99	99	99	100	100	100	100	101
		L	91	91	92	92	92	92	92	93
		A	99	99	99	100	100	100	100	101
		E	91	91	92	92	92	92	92	93
♪♪ Sound pressure	dB(A)	(°)	66	66	66	67	67	67	67	68
		L	58	58	59	59	59	59	59	60
		A	66	66	66	67	67	67	67	68
		E	58	58	59	59	59	59	59	60

Power supply = 400V 3~ 50Hz.
Performance values refer to the following conditions:

♪ Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

♪♪ Sound pressure measured in free field over a reflective plane (directivity factor Q=2) at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Cooling:

- entering water temperature 12 °C
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

Technical Data

Mod. NS	U.M.	Vers.	5202	5402	5702	6003	6303	6603	6903	7203
Cooling capacity	kW	(°)	1140	1185	1230	1264	1321	1372	1430	1480
		L	1060	1105	1150	1176	1227	1268	1319	1361
		A	1244	1287	1330	1372	1419	1486	1532	1600
		E	1160	1198	1236	1278	1319	1384	1425	1490
Total input power	kW	(°)	420	432	444	469	490	504	525	539
		L	440	454	467	485	505	520	540	555
		A	390	408	426	432	448	463	479	494
		E	407	426	444	452	467	484	499	516
Water flow rate	l/h	(°)	196082	203822	211562	217410	227210	235980	245960	254560
		L	182322	190062	197802	202270	211040	218100	226870	234090
		A	213970	221366	228763	235980	244070	255589	263500	275200
		E	199522	206058	212594	219820	226870	238050	245100	256280
Pressure drop	kPa	(°)	36	39	42	53	46	48	41	43
		L	31	34	37	46	40	41	35	36
		A	37	39	42	45	43	46	44	47
		E	32	34	36	39	37	40	38	41
EER	W/W	(°)	2,71	2,74	2,77	2,69	2,69	2,72	2,72	2,75
		L	2,41	2,44	2,46	2,43	2,43	2,44	2,44	2,45
		A	3,19	3,15	3,12	3,18	3,17	3,21	3,20	3,24
		E	2,85	2,82	2,78	2,83	2,82	2,86	2,86	2,89
ESEER		(°)	3,71	3,69	3,69	3,76	3,78	3,76	3,81	3,76
		L	3,60	3,58	3,58	3,65	3,67	3,65	3,70	3,65
		A	4,26	4,20	4,15	4,28	4,25	4,28	4,29	4,28
		E	4,13	4,07	4,03	4,15	4,12	4,15	4,16	4,15
Total input current	A	(°)	693	715	736	778	820	841	883	904
		L	726	750	774	795	834	858	898	921
		A	655	685	715	723	757	780	814	837
		E	670	700	735	733	763	791	821	849
Maximum current (LRA)	A	(°)-L	924	968	1012	1050	1067	1107	1124	1164
		A-E	938	975	1012	1071	1088	1128	1145	1185
Starting current (FLA)	A	(°)-L	1109	1228	1227	1013	1072	1064	1122	1122
		A-E	1123	1235	1227	1034	1093	1085	1143	1143
Compressors	n°	All	2	2	2	3	3	3	3	3
Fan air flow rate	(m^3/h)	(°)	304000	324000	360000	365000	405000	400000	440000	435000
		L	216000	240000	267000	268000	296000	290000	318000	312000
		A	346000	346000	346000	446000	490000	484000	528000	522000
		E	272000	283500	295000	306000	325000	330000	349000	354000
Number of fans		(°)-L	16	18	20	20	22	22	24	24
		A-E	20	20	20	26	28	28	30	30
♪ Sound power	dB	(°)	101	101	101	101	101	101	102	102
		L	93	93	93	93	93	93	93	94
		A	101	101	101	101	101	101	102	102
		E	93	93	93	93	93	93	93	94
♪♪ Sound pressure	dB	(°)	68	68	68	68	68	68	69	68
		L	60	60	60	60	60	60	60	61
		A	68	68	68	68	68	68	68	68
		E	60	60	60	60	60	60	59	60

Power supply = 400V 3~ 50Hz.
Performance values refer to the following conditions:

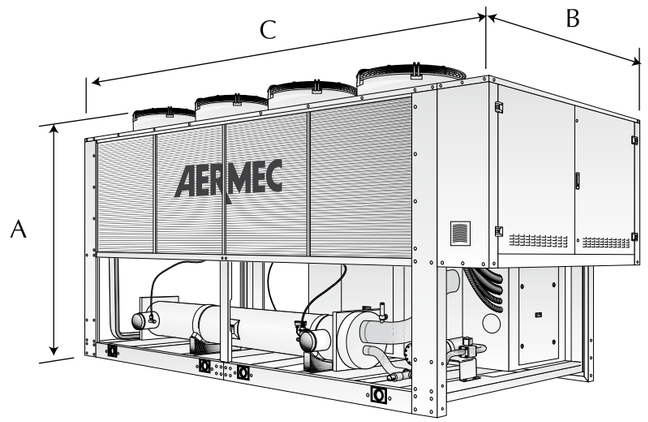
♪ Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

♪♪ Sound pressure measured in free field over a reflective plane (directivity factor Q=2) at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Cooling:

- entering water temperature 12 °C
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

Dimensions (mm)



Mod. NS		Version	1251	1401	1601	1801	2101	2401	1402	1602
Height	(A)	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)	All	2200	2200	2200	2200	2.200	2200	2200	2200
Length	(C)	°/L	3780	3780	3780	3780	4770	4770	3780	3780
		A/E	3780	3780	3780	4770	5750	5750	3780	3780
Weight empty	kg	°/L	2910	3060	3150	3650	4230	4570	3250	3270
		A/E	3050	3230	3250	4330	4920	5150	3420	3560

Mod. NS		Version	1802	2002	2202	2352	2502	2652	2802	3002
Height	(A)	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(C)	°/L	3780	4770	4770	4770	4770	5750	5750	7160
		A/E	4770	5750	5750	5750	5750	5750	5750	7160
Weight empty	kg	°/L	3460	4270	4740	4800	4900	5320	5330	6180
		A/E	3900	4700	5270	5390	5500	5510	5520	6450

Mod. NS		Version	3202	3402	3602	3902	4202	4502	4802	5002
Height	(A)	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(C)	°/L	7160	7160	7160	8150	8150	9140	9140	10120
		A/E	7160	8150	9140	10120	10120	11100	11100	11100
Weight empty	kg	°/L	6270	6770	7280	7830	8180	8750	9090	9360
		A/E	6520	7540	8610	9180	9410	9820	10200	10450

Mod. NS		Version	5202	5402	5702	6003	6303	6603	6903	7203
Height	(A)	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(C)	°/L	11100	11100	11100	11530	12520	12520	13510	13510
		A/E	11100	11100	11100	14490	15470	15470	16450	16450
Weight empty	kg	°/L	10100	10200	10350	11390	12210	12250	13230	13570
		A/E	10750	10800	10850	13760	14330	14560	14970	15350

For transport reasons Versions A and E, sizes 6003 to 7203, are shipped separated; one module consisting of two compressors and standard electrical panel (placed in front of the unit) and one module with one compressor and the electrical panel placed on the compressor side beneath the condenser coil. On the site it is only necessary to connect the two sections electrically. For more information refer to the technical and/or installation manual.

Cod.: SNSUY.03 / 1112

NSH

Air cooled heat pumps with axial fans and twin-rotor screw compressor
Cooling capacity from 236 to 732 kW, heating capacity from 275 to 812 kW

R134a

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

AERMEC
partecipates in the EUROVENT programme for:LCP/A/P/R
up to 600 kW
Check ongoing validity of certificate online:
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Characteristics

- R134a refrigerant
- High efficiency both in cooling and heating mode, and also at part load
- Compact sizes
- Screw compressors with 40-100% modulating capacity control, with acoustical enclosure as a standard
- Shell and tube heat exchanger optimised as either evaporator or condenser
- 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
- Modulating capacity control microprocessor system with multilingual display panel
- Extremely robust construction with anti-corrosion polyester paint
- Extensive choice of models and versions
  - 17 sizes (4 single, 13 double circuit)
  - 4 versions: standard [°], low noise[L], high efficiency [A], low noise high efficiency [E]
  - Partial heat recovery option (desuperheater)
  - Pump assembly option (single pump and expansion vessel)
  - Inverter fans with high static pressure option
  - Condenser coil with aluminium, coated aluminium, copper or tinned copper fins
- Wide operating limits
  - Maximum leaving water temperature in heating mode 55°C
  - Maximum external air temperature in cooling mode 48° C for high efficiency versions, 44° C for standard versions
  - Minimum external temperature in heating mode -7° C for high efficiency versions, -3° C for standard versions
  - Ability to exceed operating limits with a reduction of capacity using an intelligent algorithm that avoids a fault trip-out
  - Low sound level
  - Low noise axial fans with aerodynamic profile blades
  - Acoustical compressor enclosure as standard
  - For low noise versions:
  - Hot gas discharge muffler
  - Reduced fan speed by means of phase-cut controller (DCPX)
  - Optional acoustic kit AK, including enhanced soundproofing enclosures and additional insulation

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **DCPX: E**lectronic controller that varies fan speed based on condensing pressure. Low ambient device for cooling operation below 19 °C down to -10 °C. Standard for Versions HD, HL, and HE.
- **KRS: Evaporator trace heating. Factory fitted only.**
- **KRSDES: E**vaporator and desuperheater exchangers trace heating. Factory fitted **only.**
- **GP: Protective** grille. Condenser coil external protection against accidental or hail damage**. Factory fitted.**
- **PRV3: Remote control of the chiller operating functions.**
- **RIFNSH**: 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. For compatibility of the** RIF device refer to the technical manual.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **AK: ACOUSTIC KIT (only for Versions HL-HE).**
  This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

Accessory Compatibility

Mod. NSH	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
AER485P1	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔
AK-ACUSTIC KIT **(1)**	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔
Mod. NSH	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
KRS **(1)**	KRS11	KRS11	KRS11	KRS11	KRS19	KRS19	KRS19	KRS19
KRSDES **(1)(2)**	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES
Mod. NSH	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
RIFNSH	1251	1401	1601	1801	1402	1602	1802	2002
Mod. NSH	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
GP300M **(1)**	✔	✔	✔					
GP400M **(1)**				✔				
GP300B **(1)**					✔	✔		
GP400B **(1)**							✔	
GP500B **(1)**								✔
Mod.NSH	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
DCPX**(3)(4)**	DCPX69	DCPX69	DCPX69	DCPX69	DCPX68	DCPX68	DCPX68	DCPX73
Mod.NSH(version ° - L)	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
AVX (00)	536	536	536	539	537	538	541	542
AVX (PA)	536	536	536	539	537	538	541	543
AVX (PC)	536	536	536	540	537	538	541	543
AVX (PE)	536	536	536	540	537	538	541	543
AVX (PG)	536	536	536	540	538	538	541	543
AVX (PJ)	536	536	536	540	538	538	541	543
Mod.NSH(version A - E)	**1251**	**1401**	**1601**	**1801**	**1402**	**1602**	**1802**	**2002**
AVX (00)	536	536	536	540	537	538	541	543
AVX (PA)	536	536	536	540	537	538	541	543
AVX (PC)	536	536	536	540	538	538	541	543
AVX (PE)	536	536	536	540	538	538	541	543
AVX (PG)	536	536	536	540	538	538	541	543
AVX (PJ)	536	536	536	540	538	538	541	543

Accessories available for all versions

(1)Accessory only factory fitted

(2)Accessory KRSDES includes evaporator and desuperheater heat exchangers trace heating

(3) Standard for low noise Versions(L/E) and with desuperheater(D)

(4)Fans Inverter (J): DCPX not necessary. Fans are already equipped with speed controller

Mod. NSH	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
AER485P1	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x1)	✔(x1)	✔(x1)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔
AK-ACUSTIC KIT **(1)**	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB30	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. NSH	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
KRS **(1)**	KRS19	KRS19	KRS19	KRS19	KRS19	KRS14	KRS14	KRS14	KRS14
KRSDES **(1)(2)**	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES
Mod. NS	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
RIFNSH	2202	2352	2502	2652	2802	3002	3202	3402	3602
Mod. NSH	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
GP500B **(1)**	✔	✔	✔	✔	✔				
GP300M+300M **(1)**						✔	✔		
GP300M+400M **(1)**								✔	
GP400M+400M **(1)**									✔
Mod.NSH	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
DCPX**(3)(4)**	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73
Mod.NSH (version °- L)	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
AVX(00)	544	545	547	549	549	552	552	557	558
AVX(PA)	544	546	547	549	550	553	553	557	558
AVX(PC)	544	546	547	549	550	553	555	557	558
AVX(PE)	544	546	547	549	550	553	555	557	558
AVX(PG)	544	546	548	550	550	553	555	557	558
AVX(PJ)	544	546	548	550	550	553	555	557	558
Mod.NSH(version A - E)	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**	**3602**
AVX(00)	543	545	549	551	551	554	556	557	559
AVX(PA)	543	545	550	551	551	553	553	557	559
AVX(PC)	543	545	550	551	551	553	555	557	559
AVX(PE)	543	545	550	551	551	553	555	557	559
AVX(PG)	543	545	550	551	551	553	555	557	559
AVX(PJ)	543	545	550	551	551	553	555	557	559

Accessories available for all versions

(1)Accessory only factory fitted

(2)Accessory KRSDES includes evaporator and desuperheater heat exchangers trace heating

(3) Standard for low noise Versions(L/E) and with desuperheater(D)

(4)Fans Inverter (J): DCPX not necessary. Fans are already equipped with speed controller

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.

Configuration fields:

1 2	3 4 5 6	7	8	9	10	11	12	13	14 15
Code	Size	Expansion device	Model	Heat Recovery	Version	Condenser coil	Fan	Power supply	Pump

Code:
NS

Size:
1251, 1401, 1601, 1801, 1402, 1602, 1802, 2002, 2202
2352, 2502, 2652, 2802,3002, 3202,3402, 3602

Expansion device:
X - Electronic thermostatic valve, max. temp. of water produced: +4°C (for lower temperatures please contact us)

Model:
H - Heat pump

Heat recovery:
° - Without heat recovery
D - With desuperheaters

Version:
° - Standard
L - Standard low noise version
A - High efficiency
E - High efficiency low noise version

Condenser coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium

Fan:
° - Standard
J - Inverter

Power supply:
° - 400V 3~ 50Hz with fuses
2 - 230V 3~ 50Hz with fuses *
4 - 230V 3~ 50Hz with circuit breakers *
* (available for sizes 1402,1602,1802,2002,2202)
5 - 500V 3~ 50Hz with fuses **
8 - 400V 3~ 50Hz with circuit breakers
9 - 500V 3~ 50Hz with circuit breakers **
** (not available for sizes 1801, 3402, 3602)

Pump:
00 - Without pump assembly
PA - Pump assembly (Pump A)
PC - Pump assembly (Pump C)
PE - Pump assembly (pump E)
PG - Pump assembly (Pump G)
PJ - Pump assembly (Pump J)

Attention:
The standard options are marked with the symbol °

Example of the configuration fields: **NS1401XH°°°°00**
This is an NS unit, size 1401, electronic expansion valve, heat pump model, without heat recovery, standard version with aluminium condenser coils, standard fans, 400V 3~50Hz power supply with fuse, without pump assembly

Technical Data

NSH	U.M.	VERS.	1251	1401	1601	1801	1402	1602	1802	2002
Cooling capacity	kW	H°	245	261	297	354	242	299	343	367
		HL	236	251	281	336	228	286	328	355
		HA	263	282	310	366	258	316	366	385
		HE	251	267	293	344	243	302	350	367
Total input power	kW	H°	91	100	110	134	97	111	130	134
		HL	94	105	116	140	100	118	137	137
		HA	86	94	107	127	94	107	124	131
		HE	91	101	115	135	100	115	131	139
Water flow rate evaporator	l/h	H°	42140	44890	51080	60890	41620	51430	59000	63120
		HL	40590	43170	48330	57790	39220	49190	56420	61060
		HA	45240	48500	53320	62950	44380	54350	62950	66220
		HE	43170	45920	50400	59170	41800	51940	60200	63120
Pressure drop evaporator	kPa	H°	34	25	39	32	33	32	40	45
		HL	32	23	35	30	30	30	37	43
		HA	38	41	27	43	36	50	43	47
		HE	35	37	24	38	33	46	39	43
Heating capacity	kW	H°/HL	275	291	336	381	272	340	380	410
		HA/HE	281	297	332	393	281	342	395	412
Total input power	kW	H°/HL	92	98	110	129	97	112	128	141
		HA/HE	87	93	103	125	92	105	122	132
Water flow rate condenser	l/h	H°/HL	47300	50050	57790	65530	46780	58480	65360	70690
		HA/HE	48330	51080	57100	67600	48330	58820	67940	70690
Pressure drop condenser	kPa	H°/HL	45	33	53	40	44	45	52	60
		HA/HE	47	49	33	54	47	64	54	58
EFFICIENCIES										
EER	W/W	H°	2.69	2.61	2.70	2.64	2.49	2.69	2.64	2.74
		HL	2.51	2.39	2.42	2.40	2.28	2.42	2.39	2.59
		HA	3,06	3,00	2,90	2,88	2,74	2,95	2,95	2,94
		HE	2,76	2,64	2,55	2,55	2,43	2,63	2,67	2,64
COP	W/W	H°/HL	2,99	2,97	3,05	2,95	2,80	3,04	2,97	2,91
		HA/HE	3,23	3,19	3,22	3,14	3,05	3,26	3,24	3,11
ESEER	W/W	H°	3,15	3,04	3,14	3,07	3,02	3,25	3,18	3,29
		HL	3,09	2,94	2,97	2,96	2,90	3,07	3,05	3,27
		HA	3,51	3,44	3,31	3,30	3,23	3,48	3,49	3,48
		HE	3,36	3,21	3,09	3,10	3,05	3,29	3,33	3,30
ELECTRICAL DATA										
Power supply			400V 3~ 50Hz							
Input current (COOLING MODE)	A	H°	157	174	189	226	173	192	225	232
		HL	166	185	204	242	182	207	241	245
		HA	149	164	185	215	168	186	216	227
		HE	161	178	202	234	181	202	233	246
Input current (HEATING MODE)	A	H°/HL	159	171	189	218	173	193	223	242
		HA/HE	150	163	180	212	165	182	213	229
Maximum current (FLA)	A	H°/HL	209	242	258	316	276	276	325	352
		HA/HE	209	242	258	316	276	276	325	352
Starting current (LRA)	A	H°/HL	327	387	431	472	251	251	305	313
		HA/HE	327	387	431	472	251	251	305	313

*** data in accordance with ISO 14511**

NOMINAL CONDITIONS:

Cooling mode
entering water temperature 12 °C
leaving water temperature 7 °C
external air temperature 35 °C
Δt = 5 K.

Heating mode
entering water temperature 40 °C
leaving water temperature 45 °C
external air temperature 7 °C
Δt = 5 K.

Technical data

NSH	U.M.	VERS.	1251	1401	1601	1801	1402	1602	1802	2002
COMPRESSOR						**TWIN-ROTOR SCREW**				
N° compressors/circuits	n°/n°		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
FAN						**(STANDARD)**				
Air flow rate	m³/h	H°	128400	128400	120000	171200	128400	120000	171200	214000
		HL	89880	89880	84000	119840	89880	84000	119840	149800
		HA	117600	117600	112200	156000	117600	112200	153200	196000
		HE	82320	117600	78540	109200	82320	78540	107240	137200
Total input power	kW	H°	10,5	10,5	10,5	14	10,5	10,5	14	17,5
		HL	7,2	7,2	7,2	9,6	7,2	7,2	9,6	12
		HA	10,5	10,5	10,5	14,0	10,5	10,5	14,0	17,5
		HE	7,2	7,2	7,2	9,6	7,2	7,2	9,6	12
Total input current	A	H°	22,2	22,2	22,2	29,6	22,2	22,2	29,6	37,0
		HL	22,2	22,2	22,2	29,6	22,2	22,2	29,6	37,0
		HA	22,2	22,2	22,2	29,6	22,2	22,2	29,6	37,0
		HE	22,2	22,2	22,2	29,6	22,2	22,2	29,6	37,0
Quantity	n°	H°	6	6	6	8	6	6	8	10
		HL	6	6	6	8	6	6	8	10
		HA	6	6	6	8	6	6	8	10
		HE	6	6	6	8	6	6	8	10
SHELL & TUBE HEAT EXCHANGER										
Water contents	dm³	H°/HL	103,8	101,2	98,0	138,2	103,8	101,2	143,4	143,4
Water connections	Ø	H°/HL				6″				
Quantity	n°	H°/HL				1				
SHELL & TUBE HEAT EXCHANGER										
Water contents	dm³	HAH/E	96,0	101,2	98,1	132,9	96,0	101,2	132,9	132,9
Water connections	Ø	HA/HE				6″				
Quantity	n°	HA/HE				1				
EXPANSION VESSEL										
Capacity	dm³					25				
Quantity	n°					2				
SOUND DATA										
Sound power(1) (COOLING MODE)	dB(A)	H°	93,5	93,5	94,5	96	94	95	96	96,5
		HL	88,5	88,5	89,5	91	89	90	91	91,5
		HA	93,5	93,5	94,5	96	94	95	96	96,5
		HE	88,5	88,5	89,5	91	89	90	91	91,5
Sound power (2)	dB(A)	H°/HA	61,5	61,5	62,5	63,5	62	63	63,5	64
		HL/HE	56,5	56,5	57,5	58,5	57	58	58,5	59

*** data in accordance with ISO 14511**

(1) Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification. .

(2) Sound pressure measured in free field over a reflective plane (directivity factor Q=2) , **in cooling mode**, at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744..

Technical data

NSH	U.M	VERS.	2202	2352	2502	2652	2802	3002	3202	*3402	*3602
Cooling capacity	kW	H°	395	433	467	491	519	558	594	651	708
		HL	381	415	446	469	492	532	562	617	672
		HA	415	455	500	525	548	592	*620	676	732
		HE	395	436	488	507	518	560	586	637	688
Total input power	kW	H°	144	166	182	193	197	210	220	244	268
		HL	148	174	192	204	210	221	232	256	280
		HA	137	157	172	185	194	201	214	234	254
		HE	145	168	191	201	209	216	230	250	270
Water flow rate evaporator	l/h	H°	67940	74480	80320	84450	89270	95970	102160	111970	121780
		HL	65530	71380	76710	80670	84620	91500	96660	106120	115580
		HA	71380	78260	86000	90300	94260	101820	106640	116270	125900
		HE	67940	74990	83940	87200	89100	96320	100800	109570	118340
Pressure drop evaporator	kPa	H°	40	36	41	23	25	32	39	35	32
		HL	37	34	38	21	22	29	35	32	30
		HA	53	37	38	40	43	34	27	35	43
		HE	48	34	35	37	39	30	24	31	38
Heating capacity	kW	H°/HL	435	479	523	556	588	627	672	717	762
		HA/HE	450	502	541	563	585	629	664	725	786
Total input power	kW	H°/HL	145	164	175	185	194	208	220	239	258
		HA/HE	139	156	169	175	183	196	206	228	250
Water flow condenser	l/h	H°/HL	74820	82390	89960	95630	101140	107840	115580	123320	131060
		HA/HE	77400	86340	93050	96840	100620	108180	114200	124700	135200
Pressure drop condenser	kPa	H°/HL	51	47	50	31	35	43	53	47	40
		HA/HE	67	49	47	49	53	41	33	43	54
EFFICIENCIES											
EER	W/W	H°	2,74	2,61	2,57	2,54	2,63	2,66	2,70	2,67	2,64
		HL	2,57	2,39	2,32	2,30	2,34	2,41	2,42	2,41	2,40
		HA	3,03	2,90	2,91	2,84	2,82	2,95	2,90	2,89	2,88
		HE	2,72	2,60	2,55	2,52	2,48	2,59	2,55	2,55	2,55
COP	W/W	H°/HL	3,00	2,92	2,99	3,01	3,03	3,01	3,05	3,00	2,95
		HA/HE	3,24	3,22	3,20	3,22	3,20	3,21	3,22	3,18	3,14
ESEER	W/W	H°	3,30	3,12	3,07	3,05	3,17	3,09	3,14	3,10	3,07
		HL	3,26	3,04	2,95	2,92	2,98	2,97	2,98	2,96	2,96
		HA	3,56	3,41	3,44	3,36	3,33	3,37	3,31	3,31	3,30
		HE	3,40	3,25	3,18	3,15	3,11	3,15	3,09	3,08	3,09
ELECTRICAL DATA											
Power supply							400V 3PH~ 50Hz				
Total input current (COOLING MODE)	A	H°	245	283	310	330	340	363	378	415	453
		HL	259	302	333	354	368	389	407	445	484
		HA	233	268	295	318	335	349	370	400	430
		HE	254	293	333	349	365	380	403	436	468
Total input current (HEATING MODE)	A	H°/HL	246	279	301	319	335	360	378	407	436
		HA/HE	236	267	292	303	318	342	359	391	423
Maximum current (FLA)	A	H°/HL	370	390	410	443	476	500	516	574	631
		HA/HE	370	390	410	443	476	500	516	574	631
Starting current (LRA)	A	H°/HL	350	365	436	461	521	534	578	612	653
		HA/HE	350	365	436	461	521	534	578	612	653

*** data in accordance with ISO 14511**

NOMINAL CONDITIONS:

Cooling mode
entering water temperature 12 °C
leaving water temperature 7 °C
external air temperature 35 °C
Δt = 5 K.

Heating mode
entering water temperature 40 °C
leaving water temperature 45 °C
external air temperature 7 °C
Δt = 5 K.

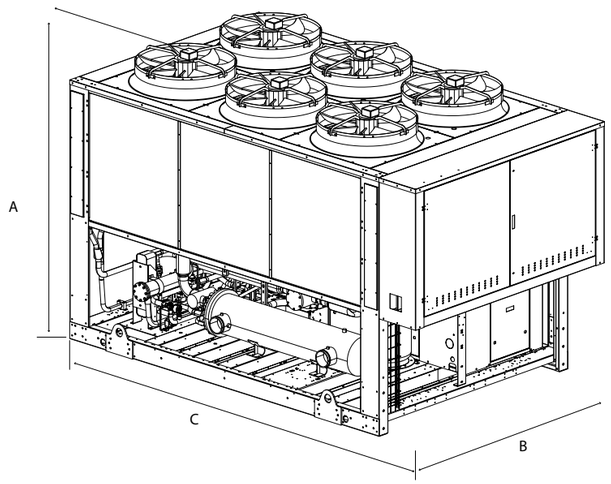
Technical Data

NSH	U.M	VERS	2202	2352	2502	2652	2802	3002	3202	3402	3602
COMPRESSOR							**BI-SCREW**				
N° compressors/circuits							2/2				
FANS							**STANDARD**				
Air flow rate	m³/h	H°	214000	214000	214000	207000	200000	248400	240000	291200	342400
		HL	149800	149800	149800	144900	140000	173880	168000	203840	239680
		HA	196000	196000	196000	191500	187000	229800	224400	268200	312000
		HE	137200	137200	137200	134050	130900	196140	157080	187740	218400
Total input power	kW	H°	17,5	17,5	17,5	17,5	17,5	21	21	24,5	28
		HL	12	12	12	12	12	14,4	14,4	16,8	19,2
		HA	17,5	17,5	17,5	17,5	17,5	21,0	21,0	24,5	28,0
		HE	12	12	12	12	12	14,4	14,4	16,8	19,2
Total input current	A	H°	37,0	37,0	37,0	37,0	37,0	44,4	44,4	51,8	59,2
		HL	37,0	37,0	37,0	37,0	37,0	44,4	44,4	51,8	59,2
		HA	37,0	37,0	37,0	37,0	37,0	44,4	44,4	51,8	59,2
		HE	37,0	37,0	37,0	37,0	37,0	44,4	44,4	51,8	59,2
Quantity	n°	H°	10	10	10	10	10	12	12	14	16
		HL	10	10	10	10	10	12	12	14	16
		HA	10	10	10	10	10	12	12	14	16
		HE	10	10	10	10	10	12	12	14	16
SHELL & TUBE HEAT EXCHANGER											
Water contents	dm^3	H°/HL	138,2	132,9	159,8	159,8	159,8	199,2	196,0	236,2	276,4
Water connections	Ø	H°/HL					6″				
Quantity	n°	H°/HL	1	1	1	1	1	2	2	2	2
SHELL & TUBE HEAT EXCHANGER											
Water contents	dm^3	HA/HE	159,8	159,8	149,9	220,7	220,7	199,3	196,2	231,0	265,8
Water connections	Ø	HA/HE					6″				
Quantity	n°	HA/HE	1	1	1	1	1	2	2	2	2
EXPANSION VESSEL											
Capacity	dm^3	All					25				
Quantity	n°	All	2	2	2	2	2	4	4	4	4
SOUND DATA											
Sound power (1)	dB(A)	H°	96,5	96,5	97	97	97	97	97,5	98,5	99
Sound power (1) (coolign mode)	dB(A)	HL	91,5	91,5	92	92	92	92	92,5	93,5	94
		HA	96,5	96,5	97	97	97	97	97,5	98,5	99
		HE	91,5	91,5	92	92	92	92	92,5	93,5	94
Sound pressure (2)	dB(A)	H°/HA	64	64	64,5	64,5	64,5	64	65	65,5	66
	dB(A)	HL/HE	59	59	59,5	59,5	59,5	59	60	60,5	61

*** data in accordance with ISO 14511**

(1) Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.
(2) Sound pressure measured in free field over a reflective plane (directivity factor Q=2) , **in cooling mode**, at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Dimensions (mm)



DIMENSIONS	U.M.	Vers.	1251	1401	1601	1801	1402	1602	1802	2002
Height (A)	mm	All	2450	2450	2450	2450	2450	2450	2450	2450
Width (B)	mm	All	2200	2200	2200	2200	2200	2200	2200	2200
Lenght (C)	mm	All	3780	3780	3780	4770	3780	3780	4770	5750
Weight empty	Kg	H°H/L	3150	3165	3340	4005	3475	3800	3930	4290
Weight operating	Kg	H°H/L	3255	3265	3440	4145	3580	3900	4075	4435
Weight empty	Kg	HA/HE	3245	3280	3435	4115	3570	3835	4005	4385
Weight operating	Kg	HA/HE	3340	3380	3535	4250	3665	3935	4140	4520

DIMENSIONS	U.M.	Vers.	2202	2352	2502	2652	2802	3002	3202	3402	3602
Height (A)	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width (B)	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200
Lenght (C)	mm	All	5750	5750	5750	5750	5750	7160	7160	8150	9140
Weight empty	Kg	H°/HL	4355	4735	5090	5210	5330	6330	6555	7220	7885
Weight operating	Kg	H°/HL	4495	4870	5250	5370	5490	6530	6750	7455	8160
Weight empty	Kg	HA/HE	4570	4940	5265	5470	5610	6540	6745	7425	8105
Weight operating	Kg	HA/HE	4730	5100	5415	5690	5830	6740	6940	7655	8370

Cod.: SNSHUY.01 /1201

AERMEC

NEW

NS FREECOOLING

Air cooled chillers with axial fans and screw compressors
Cooling capacity from 272 to 1554 kW
Free-cooling capacity from 280 to 1510 kW

R134a



OPERATES TO 46°C AMBIENT
AVAILABLE WITH PUMP ASSEMBLY

Characteristics

- R134a refrigerant
- High efficiency even at part load
- Screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option) and acoustical enclosure as standard**
- Shell and tube heat exchanger optimised for refrigerant R134a
- Electronic expansion valve as standard in sizes 5002 to 5702
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-cooling coil
- Modulating capacity control microprocessor system with multilingual display panel
- Extremely robust construction with anti-corrosion polyester paint
- Available in 32 sizes
- Available versions: High Efficiency [A], Low noise High Efficiency [E]
- Partial heat recovery (option) desuperheater)
- Pump assembly option (single pump or run and standby pumps with two 25 litre expansion vessels)
- Inverter fans with high static pressure option
- Condenser coil with aluminium, coated aluminium, copper or tinned copper fins
- Wide operating limits

- Maximum external air temperature:
  42°C for size 1601 and from 3002 to 3402
  44°C for sizes 5002 to 5702
  46°C for all other sizes
- Ability to exceed operating limits with a reduction of capacity using an intelligent algorithm that avoids a fault trip-out

- Low sound level
- Low noise axial fans with aerodynamic profile blades
- Acoustical compressor enclosure as standard
- For the low-noise versions:

- Hot gas discharge muffler
- Optional acoustic kit AK, including enhanced soundproofing enclosures and additional insulation

- DCPX as standard: fan speed control by means of phase-cut controller

Accessories

- **AER 485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **KRSDES: (available for desuperheater "D" option). E**vaporator and desuperheater exchangers trace heating. Factory fitted **only at time of order and is available factory fitted only. For compatibility of the** RIF device refer to the technical manual.
- **GP: Protective** grille. Condenser coil external protection against accidental or hail damage**. Factory fitted.**
- **PRV3: Remote control of the chiller operating functions.**
- **RIFNS** :Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current**. Must be requested**
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **AK: ACOUSTIC KIT (only for Versions E).** This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

Compatibility accessories

Mod. NS	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
AER485P1	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(1)(3)AK-ACUSTIC KIT	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. NS	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
AER485P1	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x3)	✔(x3)	✔(x3)	✔(x3)	✔(x3)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(1)(3)AK-ACUSTIC KIT	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Mod. NS A/E	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
(1)GP 300M	✔(x1)	✔(x1)	✔(x1)													
(1)GP 400M				✔(x1)												
(1)GP 500M					✔(x1)	✔(x1)										
(1)GP 300B							✔(x1)	✔(x1)								
(1)GP 400B									✔(x1)							
(1)GP 500B										✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	
(1)GP 300M+300M																✔(x2)
(1)(4)KRSDES	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
Mod. NS A/E	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
(1)GP 300M+300M	✔(x2)															
(1)GP 300M+400M		✔(x2)														
(1)GP 400M+400M			✔(x2)													
(1)GP 400M+500M				✔(x2)	✔(x2)											
(1)GP 500M+500M						✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)					
(1)GP 400M+400M+500M												✔(x3)				
(1)GP 400M+500M+500M													✔(x3)	✔(x3)		
(1)GP 500M+500M+500M															✔(x3)	✔(x3)
(1)(4)KRSDES	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
Mod. NS A/E	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
AVX	501	501	501	506	512	512	501	501	505	511	511	511	511	511	511	509
(1)(2)RIFNS*	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2602	2802	3002F
Mod. NS A/E	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
AVX	507	513	516	518	518	521	521	560	560	560	560	525	527	527	530	530
(1)(2)RIFNS*	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203

*example: RIFNS**1251F**

Notes:
(1) Accessory only factory fitted. Number in brackets, i.e. (x1) indicates quantity.
(2) Accessory only available with 400V-3-50Hz power supply
(3) Accessory only available for low noise versions
(4) Accessory KRSDES includes evaporator and desuperheater heat exchangers trace heating

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 key: 1 2 | 3 4 5 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 15

1 2 Code
3 4 5 6 Size
7 Expansion device
8 Model
9 Heat recovery
10 Version
11 Condenser coil
12 Fan
13 Power supply
14 15 Pump assembly

Code:
NS

Size:
1251, 1401, 1601, 1801, 2101, 2401, 1402, 1602, 1802, 2002, 2202
2352, 2502, 2652, 2802,3002, 3202,3402, 3602, 3902,4202,4502,
4802, 5002, 5202, 5402, 5703, 6003, 6303, 6603, 6903, 7203

Expansion device:
° - Thermostatic expansion valve, minimum leaving water temperature +4°C
Y - Thermostatic expansion valve , leaving liquid temperature +4°C to -6°C
X - Electronic expansion valve, minimum leaving water temperature +4°C
(for lower temperatures please contact the factory)

Model:
F - Free-cooling

Heat recovery:
° - Without heat recovery
D -With desuperheater

Version:
A - High efficiency
E - High efficiency low noise version

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium

Fan:
° - Standard
M - High static pressure (not compatible with Power supply fields “2”, “4”, “5” and “9”)
J - Inverters (not compatible with Power supply fields “5” and “9”)

Power supply:
° - 400V 3~ 50Hz with fuses
2 - 230V 3~ 50Hz with fuses *
4 - 230V 3~ 50Hz with circuit breakers *
5 - 500V 3~ 50Hz with fuses **
8 - 400V 3~ 50Hz with circuit breakers
9 - 500V 3~ 50Hz with circuit breakers **

Pump assembly:
00 - Without pump assembly
PA - Pump assembly (Pump A)
PB - Pump assembly (Pump A and standby pump)
PC - Pump assembly (Pump C)
PD - Pump assembly (Pump C and standby pump)
PE - Pump assembly (Pump E)
PF - Pump assembly (Pump E and standby pump)
PG - Pump assembly (Pump G)
PH - Pump assembly (Pump G and standby pump)
PJ - Pump assembly (Pump J)
PK - Pump assembly (Pump J and standby pump)
PN - Pump assembly (Pump N) ***
PO - Pump assembly (Pump N and standby pump)***
PP - Pump assembly (Pump P) ***
PQ - Pump assembly (Pump P and standby pump)***

Limitations of option “D” with Desuperheater
not available in sizes 2002-2802
available in sizes 1251 to 1601, 1402, 1602, 1801, 1802,
from 3002 to 4202, and from 6003 to 6603 without evaporator pump assembly

* not available in sizes 1251 to 2401, and 2352 to 7203
** not available in sizes 1801 to 2401, and 3402 to 7203
***not available in sizes 1251 to 1801, 1402 to 2002,
3002 to 4202, and 6003 to 6603

Technical Data

Mod. NS	U.M.	Vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802
Cooling capacity	kW	FA	272	304	338	408	465	518	285	324	377
		FE	243	282	322	372	415	471	257	295	340
Total input power	kW	FA	91	104	115	144	157	177	103	119	133
		FE	93	105	117	148	161	183	105	121	136
E.E.R.		FA	2.99	2.92	2.94	2.83	2.96	2.93	2.77	2.72	2.83
		FE	2.61	2.69	2.75	2.51	2.58	2.57	2.45	2.44	2.50
Total input current	A	FA	160	180	196	238	267	299	179	205	225
		FE	164	182	199	245	274	309	182	208	230
Cooling capacity	kW	FA	280	291	301	403	486	503	285	297	393
		FE	268	283	297	391	466	490	249	288	379
Total input power	kW	All	12	12	12	16	20	20	12	12	16
EER		FA	23.3	24.3	25.1	25.2	24.3	25.2	23.8	24.8	24.6
		FE	22.3	23.6	24.8	24.4	23.3	24.5	20.8	24.0	23.7
Total input current	A	All	24	24	24	32	40	40	24	24	32
Water flow rate	l/h	FA	46780	52290	58140	70180	79980	89100	49020	55730	64840
		FE	41800	48500	55380	63980	71380	81010	44200	50740	58480
Compressors	n°	All	1	1	1	1	1	1	2	2	2
*Capacity control		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure (Chiller)	dBA	FA	62	63	65	65	66	66	64	65	65
		FE	54	55	57	57	58	58	56	57	57
♪ Sound pressure (Freecooling)	dBA	FA	62	63	65	65	66	66	64	65	65
Air flow rate (Chiller)	m³/h	FA	102000	102000	102000	136000	170000	170000	102000	102000	136000
		FE	70000	78000	87000	100000	112000	127000	74000	80000	96000
Air flow rate (Freecooling)	m³/h	FA	102000	102000	102000	136000	170000	170000	102000	102000	136000
Fans	n°	FA/FE	6	6	6	8	10	10	6	6	8
(1) Evaporators	n°	FA/FE	1	1	1	1	1	1	1	1	1

Mod. NS	U.M.	Vers.	2002	2202	2352	2502	2652	2802	3002	3202	3402
Cooling capacity	kW	FA	429	480	501	522	553	584	642	675	746
		FE	389	439	457	475	514	554	604	645	694
Total input power	kW	FA	153	168	177	186	200	215	219	230	259
		FE	156	167	179	191	203	214	222	233	265
E.E.R.	W/W	FA	2.80	2.86	2.83	2.81	2.77	2.72	2.93	2.93	2.88
		FE	2.49	2.63	2.55	2.49	2.53	2.59	2.72	2.77	2.62
Total input current	A	FA	261	288	305	322	344	366	376	391	434
		FE	266	286	308	331	349	364	381	396	444
Cooling capacity	kW	FA	452	491	498	505	514	522	592	602	705
		FE	420	476	483	489	502	514	580	594	688
Total input power	kW	All	20	20	20	20	20	20	24	24	28
EER	W/W	FA	22.6	24.6	24.9	25.3	25.7	26.1	24.7	25.1	25.2
		FE	21.0	23.8	24.2	24.5	25.1	25.7	24.2	24.8	24.6
Total input current	A	All	40	40	40	40	40	40	48	48	56
Water flow rate	l/h	FA	73790	82560	86170	89780	95120	100450	110430	116100	128310
		FE	66910	75510	78600	81700	88410	95290	103890	110940	119370
Compressors	n°	All	2	2	2	2	2	2	2	2	2
*Capacity control		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure (Chiller)	dBA	FA	66	66	66	66	67	67	67	68	68
		FE	58	58	58	58	59	59	59	60	60
♪ Sound pressure (Freecooling)	dBA	FA	66	66	66	66	67	67	67	68	68
Air flow rate (Chiller)	m³/h	FA	170000	170000	170000	170000	170000	170000	204000	204000	238000
		FE	124500	120000	123000	130000	130000	140000	165000	174000	187000
Air flow rate (Freecooling)	m³/h	FA	170000	170000	170000	170000	170000	170000	204000	204000	238000
Fans	n°	All	10	10	10	10	10	10	12	12	14
(1) Evaporators	n°	All	1	1	1	1	1	1	2	2	2

Mod. NS	U.M.	Vers.	3602	3902	4202	4502	4802	5002	5202	5402	5702
Cooling capacity	kW	FA	817	873	926	983	1036	1084	1154	1225	1282
		FE	744	787	843	887	943	1017	1066	1116	1159
Total input power	kW	FA	288	300	321	334	354	374	403	432	444
		FE	298	311	333	346	369	381	413	445	457
E.E.R.		FA	2.84	2.91	2.88	2.94	2.93	2.90	2.86	2.84	2.89
		FE	2.50	2.53	2.53	2.56	2.56	2.67	2.58	2.51	2.54
Total input current	A	FA	476	505	537	566	598	629	672	714	743
		FE	493	524	557	586	623	641	689	735	765
Cooling capacity	kW	FA	807	889	907	989	1007	993	1009	1025	1035
		FE	782	585	881	956	979	976	988	1001	1010
Total input power	kW	All	32	36	36	40	40	40	40	40	40
EER		FA	25.2	24.7	25.2	24.7	25.2	24.8	25.2	25.6	25.9
		FE	24.4	16.3	24.5	23.9	24.5	24.4	24.7	25.0	25.3
Total input current	A	All	64	72	72	80	80	80	80	80	80

*40-100 - Modulating capacity
25-100 - Electronic expansion valve

Technical Data

Mod. NS	U.M.	Vers.	3602	3902	4202	4502	4802	5002	5202	5402	5702
Water flow rate	l/h	FA	140530	150160	159270	169080	178190	186450	198490	210700	220510
		FE	127970	135370	145000	152570	162200	174930	183350	191950	199350
Compressors	n°	All	2	2	2	2	2	2	2	2	2
*Capacity control		%	40-100	40-100	40-100	40-100	40-100	25-100	25-100	25-100	25-100
♪ Sound pressure (Chiller)	dBA	FA	68	69	69	69	69	70	71	71	71
		FE	60	61	61	61	61	62	63	63	63
♪ Sound pressure (Freecooling)	dBA	All	68	69	69	69	69	70	71	71	71
Air flow rate (Chiller)	m³/h	FA	272000	306000	306000	340000	340000	340000	340000	340000	340000
		FE	200000	212000	227000	239000	254000	254000	254000	254000	254000
Air flow rate (Freecooling)	m³/h	FA	272000	306000	306000	340000	340000	340000	340000	340000	340000
Fans	n°	FA/FE	16	18	18	20	20	20	20	20	20
(1) Evaporators	n°	FA/FE	2	2	2	2	2	2	2	2	2

Mod. NS	U.M.	Vers.	6003	6303	6603	6903	7203
Cooling capacity	kW	FA	1335	1391	1444	1501	1554
		FE	1216	1259	1315	1358	1414
Total input power	kW	FA	465	478	498	511	532
		FE	479	492	514	527	549
E.E.R.	W/W	FA	2.87	2.91	2.90	2.94	2.92
		FE	2.54	2.56	2.56	2.58	2.58
Total input current	A	FA	775	804	836	865	897
		FE	798	828	863	892	926
Cooling capacity	kW	FA	1310	1393	1410	1493	1510
		FE	1272	1347	1371	1446	1469
Total input power	kW	All	52	56	56	60	60
EER	W/W	FA	25.2	24.9	25.2	24.9	25.2
		FE	24.5	24.1	24.5	24.1	24.5
Total input current	A	All	104	112	112	120	120
Water flow rate	l/h	FA	229620	239250	248370	258170	267290
		FE	209150	216550	226180	233580	243210
Compressors	n°	All	3	3	3	3	3
*Capacity control		%	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure (Chiller)	dBA	FA	70	70	71	71	71
		FE	62	62	63	63	63
♪ Sound pressure (Freecooling)	dBA	FA	70	70	71	71	71
Air flow rate (Chiller)	m³/h	FA	442000	476000	476000	510000	510000
		FE	327000	339000	354000	366000	381000
Air flow rate (Freecooling)	m³/h	FA	442000	476000	476000	510000	510000
Fans	n°	FA/FE	26	28	28	30	30
(1) Evaporators	n°	FA/FE	3	3	3	3	3

(1) = Tubular band
Power supply voltage= 400V 3~ 50 Hz. Performance values refer to the following conditions:

Cooling:
- water inlet temperature 12 °C;
- water outlet temperature 7 °C;
- outside air temp. 35 °C;
- Dt = 5 °C.

Free-cooling
- water inlet temperature 15°C
- outside air temp. 2°C
- Glycol 0%

♪ Sound pressure measured in free field 10 metres away and direction factor = 2. In accordance with ISO 3744

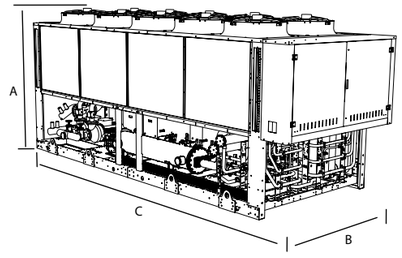
***40-100 - Partload continuous**
25-100 - Electronic expansion valve

Dimensions (mm)

Mod. NS(F)		Version	1251	1401	1601	1801	2101	2401	1402
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Length	(C)	A/E	3780	3780	3780	4770	5750	5750	3780
Weight	kg	A/E	3760	3770	3840	5000	5950	5980	4010

Mod. NS(F)		Version	1602	1802	2002	2202	2352	2502	2652
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Length	(C)	A/E	3780	4770	5750	5750	5750	5750	5750
Weight	kg	A/E	4030	4730	5470	5790	6340	6330	6340

Mod. NS(F)		Version	2802	3002	3202	3402	3602	3902	4202
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Length	(C)	A/E	5750	7160	7160	8150	9140	10120	10120
Weight	kg	A/E	6350	7210	7310	8410	9180	10580	11580



Mod. NS(F)		Version	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
Height	(A)		2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	(C)	A/E	11100	11100	11100	11100	11100	11100	14490	15470	15470	16450	16450
Weight	kg	A/E	11104	11320	12300	12600	12700	12800	15160	16560	16840	17084	17300

For transport reasons NS FREECOOLING sizes 6003 to 7203 are shipped separated; one module consisting of two compressors and standard electrical panel (placed in front of the unit) and one module with one compressor and the electrical panel placed on the compressor side beneath the condenser coil. On the site it is only necessary to connect the two sections electrically. For more information refer to the technical and/or installation manual.

Cod.: SNSFCUY.00 / 1211

NEW

NS GLYCOL FREE

Air cooled chillers with axial fans and screw compressors
Cooling capacity from 272 to 1554 kW
Free-cooling capacity from 213 to 1149 kW

R134a



- **OPERATES TO 46 °C AMBIENT**
- **AVAILABLE WITH PUMP ASSEMBLY**

Characteristics

- R134a refrigerant
- High efficiency even at part loads
- Screw compressors with modulating capacity control from 40 to 100% (**25 to 100% with electronic expansion valve option) and acoustical enclosure as standard**
- Shell and tube heat exchanger optimised for refrigerant R134a
- Electronic expansion valve as standard in sizes 5002 to 5702
- 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 glycol circuit includes as standard:

- Intermediate plate heat exchanger
- Circulation pump
- Expansion vessel
- Flow switch
- Low pressure switch
- Gauge
- Safety pressure valve

- Modulating capacity control microprocessor system with multilingual display panel
- Extremely robust construction with anti-corrosion polyester paint
- Available in 32 sizes
- Available versions: High Efficiency [A], Low noise High Efficiency [E]
- Partial heat recovery (option) desuperheater)
- Pump assembly option (single pump or run and standby pumps with two 25 litre expansion vessels)
- Inverter fans with high static pressure option
- Condenser coil with aluminium, coated aluminium, copper or tinned copper fins
- Wide operating limits

- Maximum external air temperature:
  42°C for size 1601 and from 3002 to 3402
  44°C for sizes 5002 to 5702
  46°C for all other sizes
- Ability to exceed operating limits with a reduction of capacity using an intelligent algorithm that avoids a fault trip-out
- Low sound level
- Low noise axial fans with aerodynamic profile blades
- Acoustical compressor enclosure as standard
- For the low-noise versions:

- Hot gas discharge muffler
- Optional acoustic kit AK, including enhanced soundproofing enclosures and additional insulation
- DCPX as standard: fan speed control by means of phase-cut controller

Accessories

- **AER 485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **KRS: (obligatory accessory with version "°"). Evaporator trace heating. Factory fitted only.**
- **KRSDES: (obligatory accessory version with desuperheater "D"). E**vaporator and desuperheater exchangers trace heating. Factory fitted **only.**
- **KDI:** 20 mm **doubled thickness evaporator insulation. Provides stand-still protection down to** -20°C. Must be ordered in conjunction with options KRS and KRSDES heaters.
- **GP: Protective** grille. Condenser coil external protection against accidental or hail damage**. Factory fitted.**
- **PRV3: Remote control of the chiller operating functions.**
- **RIFNS**: 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. For compatibility of the** RIF device refer to the technical manual.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available**:**

AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **AK: ACOUSTIC KIT (only for Versions E).** This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

Mod. NS	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
AER485P1	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(1)(3)AK-ACUSTIC KIT	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. NS	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
AER485P1	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x3)	✔(x3)	✔(x3)	✔(x3)	✔(x3)
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(1)(3)AK-ACUSTIC KIT	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
PRV3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Mod. NS A/E	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
(1)GP 300M	✔(x1)	✔(x1)	✔(x1)													
(1)GP 400M				✔(x1)												
(1)GP 500M					✔(x1)	✔(x1)										
(1)GP 300B							✔(x1)	✔(x1)								
(1)GP 400B									✔(x1)							
(1)GP 500B										✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	✔(x1)	
(1)GP 300M+300M																✔(x2)
(1)KRS	KRS10	KRS10	KRS11	KRS10	KRS11	KRS11	KRS11	KRS11	KRS10	KRS10	KRS11	KRS11	KRS11	KRS11	KRS11	KRS13
(1)(4)KRSDES	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
Mod. NS A/E	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
(1)GP 300M+300M	✔(x2)															
(1)GP 300M+400M		✔(x2)														
(1)GP 400M+400M			✔(x2)													
(1)GP 400M+500M				✔(x2)	✔(x2)											
(1)GP 500M+500M						✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)					
(1)GP 400M+400M+500M												✔(x3)				
(1)GP 400M+500M+500M													✔(x3)	✔(x3)		
(1)GP500M+500M+500M															✔(x3)	✔(x3)
(1)KRS	KRS14	KRS13	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
(1)(4)KRSDES	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
Mod. NS A/E	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**
AVX	501	501	501	506	512	512	501	501	505	511	511	511	511	511	511	509
(1)(2)RIFNS*	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2602	2802	3002F
Mod. NS A/E	**3202**	**3402**	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**	**6003**	**6303**	**6603**	**6903**	**7203**
AVX	507	513	516	518	518	521	521	560	560	560	560	525	527	527	530	530
(1)(2)RIFNS*	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203

*example RIFNS**1251F**

Mod NS A/E	**1251**	**1401**	**1601**	**1801**	**2101**	**2401**	**1402**	**1602**	**1802**
(5)**KDI** (x n°)	KDI01	KDI01	KDI02	KDI03	KDI04	KDI04	KDI06	KDI06	KDI06
Mod NS A/E	**2002**	**2202**	**2352**	**2502**	**2652**	**2802**	**3002**	**3202**	**3402**
(5)**KDI** (x n°)	KDI06	KDI08	KDI08	KDI08	KDI08	KDI08	KDI01+KDI02	KDI02 x2	KDI02+KDI03
Mod NS A/E	**3602**	**3902**	**4202**	**4502**	**4802**	**5002**	**5202**	**5402**	**5702**
(5)**KDI** (x n°)	KDI03 x2	KDI03+KDI04	KDI03+KDI04	KDI04 x2	KDI04 x2	KDI04+KDI05	KDI05 x2	KDI05 x2	KDI05 x2
Mod NS A/E	**6003**	**6303**	**6603**	**6903**	**7203**				
(5)**KDI** (x n°)	KDI03 x2+KDI04	KDI03+KDI04 x2	KDI03+KDI04 x2	KDI04 x3	KDI04 x3				

Notes:
(1) Accessory only factory fitted. Number in brackets, i.e. (x1) indicates quantity.
(2) Accessory only available with 400V-3-50Hz power supply
(3) Accessory only available for low noise versions
(4) Accessory KRSDES includes evaporator and desuperheater heat exchangers trace heating
(5) Accessory KDI must always be combined with the KRS and KRSDES heating elements.

KRS(obligatory accessory version "°")/KRSDES(obligatory accessory version with desuperheater "D")

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 key: 1 2 | Code — 3 4 5 6 | Size — 7 | Expansion device — 8 | Model — 9 | Heat recovery — 10 | Version — 11 | Condenser coil — 12 | Fan — 13 | Power supply — 14 15 | Pump assembly

Code:
NS

Size:
1251, 1401, 1601, 1801, 2101, 2401, 1402, 1602, 1802, 2002, 2202
2352, 2502, 2652, 2802,3002, 3202,3402, 3602, 3902,4202,4502,
4802, 5002, 5202, 5402, 5703, 6003, 6303, 6603, 6903, 7203

Expansion device:
° - Thermostatic expansion valve, minimum leaving water temperature +4°C
Y - Thermostatic expansion valve , leaving liquid temperature +4°C to -6°C
X - Electronic expansion valve, minimum leaving water temperature +4°C
(for lower temperatures please contact the factory)

Model:
B - Free-cooling Glycol-free

Heat recovery:
° - Without heat recovery
D -With desuperheater

Version:
A - High efficiency
E - High efficiency low noise version

Coil:
° - Aluminium
R - Copper
S - Tinned copper
V - Anti-corrosion coated aluminium

Fan:
° - Standard
M - High static pressure (not compatible with Power supply fields "2", "4", "5" and "9")
J - Inverters (not compatible with Power supply fields "5" and "9")

Power supply:
° - 400V 3~ 50Hz with fuses
2 - 230V 3~ 50Hz with fuses *
4 - 230V 3~ 50Hz with circuit breakers *
5 - 500V 3~ 50Hz with fuses **
8 - 400V 3~ 50Hz with circuit breakers
9 - 500V 3~ 50Hz with circuit breakers **

Pump assembly:
00 - Without pump assembly
PA - Pump assembly (Pump A)
PB - Pump assembly (Pump A and standby pump) ***
PC - Pump assembly (Pump C)
PD - Pump assembly (Pump C and standby pump) ***
PE - Pump assembly (Pump E)
PF - Pump assembly (Pump E and standby pump) ***
PG - Pump assembly (Pump G)
PH - Pump assembly (Pump G and standby pump) ***
PJ - Pump assembly (Pump J)
PK - Pump assembly (Pump J and standby pump) ***

Limitations of option "D" with Desuperheater
not available in sizes:
- dalla 1251 alla 1601 / 1402,1602 / dalla 2002 alla 3402
available in sizes:
- 1801,1802 / dalla 3602 alla 4202 / dala 6003 alla 6603
without evaporator pump assembly
* not available in sizes 1251 to 2401 and 2352 to 7203
** not available in sizes 1801 to 2401 and 3402 to 7203
***not available in sizes 1251 to 1601 and 3002 to 4202
Pump assembly option not available in sizes 1402, 1602, 2002

Tecnichal data

Mod. NS	U.M.	Vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802
Cooling capacity	kW	BA	272	304	338	408	465	518	285	324	377
		BE	243	282	322	372	415	471	257	295	340
Total input power	kW	BA	91	104	115	144	157	177	103	119	133
		BE	93	105	117	148	161	183	105	121	136
E.E.R.		BA	2.99	2.92	2.94	2.83	2.96	2.93	2.77	2.72	2.83
		BE	2.61	2.69	2.75	2.51	2.58	2.57	2.45	2.44	2.50
Total input current	A	BA	160	180	196	238	267	299	179	205	225
		BE	164	182	199	245	274	309	182	208	230
Cooling capacity	kW	BA /BE	213	222	229	307	370	383	217	226	299
Total input power	kW	BA /BE	14.0	14.0	14.0	19.8	25.3	25.5	14.0	14.0	19.8
EER		BA /BE	15.2	15.9	16.4	15.5	14.6	15.0	15.5	16.1	15.1
Total input current	A	BA /BE	28	28	28	40	51	51	28	28	40
Water flow rate	l/h	BA	46780	52290	58140	70180	79980	89100	49020	55730	64840
		BE	41800	48500	55380	63980	71380	81010	44200	50740	58480
Compressors	n°	All	1	1	1	1	1	1	2	2	2
*Capacity control		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure (Chiller)	dBA	BA	62	63	65	65	66	66	64	65	65
		BE	54	55	57	57	58	58	56	57	57
♪ Sound pressure (Freecooling)	dBA	BA	62	63	65	65	66	66	64	65	65
Air flow rate(Chiller)	m^3/h	BA	102000	102000	102000	136000	170000	170000	102000	102000	136000
		BE	70000	78000	87000	100000	112000	127000	74000	80000	96000
Air flow rate (Freecooling)	m^3/h	BA	102000	102000	102000	136000	170000	170000	102000	102000	136000
Fans	n°	All	6	6	6	8	10	10	6	6	8
(1)Evaporators	n°	All	1	1	1	1	1	1	1	1	1

Mod. NS	U.M.	Vers.	2002	2202	2352	2502	2652	2802	3002	3202	3402
Cooling capacity	kW	BA	429	480	501	522	553	584	642	675	746
		BE	389	439	457	475	514	554	604	645	694
Total input power	kW	BA	153	168	177	186	200	215	219	230	259
		BE	156	167	179	191	203	214	222	233	265
E.E.R.		BA	2.80	2.86	2.83	2.81	2.77	2.72	2.93	2.93	2.88
		BE	2.49	2.63	2.55	2.49	2.53	2.59	2.72	2.77	2.62
Total input current	A	BA	261	288	305	322	344	366	376	391	434
		BE	266	286	308	331	349	364	381	396	444
Cooling capacity	kW	BA /BE	344	374	379	385	391	397	451	458	536
Total input power	kW	BA /BE	25.3	25.3	25.4	25.5	27.1	27.2	28.0	28.0	33.8
EER		BA /BE	13.6	14.8	14.9	15.1	14.4	14.6	16.1	16.4	15.9
Total	A	BA /BE	51	51	51	51	54	54	56	56	68
Water flow rate	l/h	BA	73790	82560	86170	89780	95120	100450	110430	116100	128310
		BE	66910	75510	78600	81700	88410	95290	103890	110940	119370
Compressors	n°	All	2	2	2	2	2	2	2	2	2
*Capacity control		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure (Chiller)	dBA	BA	66	66	66	66	67	67	67	68	68
		BE	58	58	58	58	59	59	59	60	60
♪ Sound pressure (Freecooling)	dBA	BA	66	66	66	66	67	67	67	68	68
Air flow rate	m^3/h	BA	170000	170000	170000	170000	170000	170000	204000	204000	238000
		BE	124500	120000	123000	130000	130000	140000	165000	174000	187000
Air flow rate (Freecooling)	m^3/h	BA	170000	170000	170000	170000	170000	170000	204000	204000	238000
Fans	n°	All	10	10	10	10	10	10	12	12	14
(1)Evaporators	n°	All	1	1	1	1	1	1	2	2	2

Mod. NS	U.M.	Vers.	3602	3902	4202	4502	4802	5002	5202	5402	5702
Cooling capacity	kW	BA	817	873	926	983	1036	1084	1154	1225	1282
		BE	744	787	843	887	943	1017	1066	1116	1159
Total input power	kW	BA	288	300	321	334	354	374	403	432	444
		BE	298	311	333	346	369	381	413	445	457
E.E.R.		BA	2.84	2.91	2.88	2.94	2.93	2.90	2.86	2.84	2.89
		BE	2.50	2.53	2.53	2.56	2.56	2.67	2.58	2.51	2.54
Total input current	A	BA	476	505	537	566	598	629	672	714	743
		BE	493	524	557	586	623	641	689	735	765
Cooling capacity	kW	BA /BE	614	677	690	753	766	756	768	780	788
Total input power	kW	BA /BE	39.6	45.1	45.3	50.8	51.0	51.0	51.0	51.0	51.0
EER		BA /BE	15.5	15.0	15.2	14.8	15.0	14.8	15.1	15.3	15.5
Total input current	A	BA /BE	79	90	91	102	102	102	102	102	102

***40-100 - Modulating capacity**
25-100 - Electronic expansion valve

Tecnichal data

Mod. NS	U.M.	Vers.	3602	3902	4202	4502	4802	5002	5202	5402	5702
Water flow rate	l/h	BA	140530	150160	159270	169080	178190	186450	198490	210700	220510
		BE	127970	135370	145000	152570	162200	174930	183350	191950	199350
Compressors	n°	All	2	2	2	2	2	2	2	2	2
*Capacity control		%	40-100	40-100	40 - 100	40-100	40-100	25-100	25-100	25-100	25-100
♪ Sound pressure (Chiller)	dBA	BA	68	69	69	69	69	70	71	71	71
		BE	60	61	61	61	61	62	63	63	63
♪ Sound pressure (Freecooling)	dBA	BA	68	69	69	69	69	70	71	71	71
Air flow rate (Chiller)	m^3/h	BA	272000	306000	306000	340000	340000	340000	340000	340000	340000
Air flow rate (Freecooling)	m^3/h	BE	200000	212000	227000	239000	254000	254000	254000	254000	254000
		BA	272000	306000	306000	340000	340000	340000	340000	340000	340000
Fans	n°	All	16	18	18	20	20	20	20	20	20
(1)Evaporators	n°	All	2	2	2	2	2	2	2	2	2

Mod. NS	U.M.	Vers.	6003	6303	6603	6903	7203
Cooling capacity	kW	BA	1335	1391	1444	1501	1554
		BE	1216	1259	1315	1358	1414
Total input power	kW	BA	465	478	498	511	532
		BE	479	492	514	527	549
E.E.R.	W/W	BA	2.87	2.91	2.90	2.94	2.92
		BE	2.54	2.56	2.56	2.58	2.58
Total input current	A	BA	775	804	836	865	897
		BE	798	828	863	892	926
Cooling capacity	kW	BA /BE	984	1060	1073	1136	1149
Total input power	kW	BA /BE	65.1	70.6	70.8	76.3	76.5
EER		BA /BE	15.1	15.0	15.2	14.9	15.0
Total input current	A	BA /BE	130	141	142	153	153
Water flow rate	l/h	BA	229620	239250	248370	258170	267290
		BE	209150	216550	226180	233580	243210
Compressors	n°	All	3	3	3	3	3
*Capacity control		%	40-100	40-100	40-100	40-100	40-100
♪ Sound pressure(Chiller)	dBA	BA	70	70	71	71	71
		BE	62	62	63	63	63
♪ Sound pressure (Freecooling)	dBA	BA	70	70	71	71	71
		BA	442000	476000	476000	510000	510000
Air flow rate (Chiller)	m^3/h	BE	327000	339000	354000	366000	381000
Air flow rate (Freecooling)	m^3/h	BA	442000	476000	476000	510000	510000
Fans	n°	All	26	28	28	30	30
(1)Evaporators	n°	All	3	3	3	3	3

(1) = Shell & tube
Power supply = 400V 3~ 50 Hz.
Performance values refer to the following conditions:

Cooling:
- entering water temperature 12 °C
- leaving water temperature 7 °C
- external air temperature 35 °C
- Δt = 5 K.

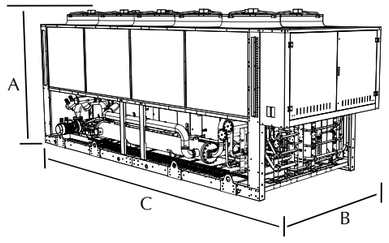
Free-cooling glycol free
- entering water temperature 15°C
- external air temperature 2°C
- primary circuit glycol 30%
- secondary system circuit glycol 0%

♪Sound pressure measured in free field 10 metres distance and directivity factor = 2. In accordance with ISO 3744

***40-100 - Modulating capacity**
25-100 - Electronic expansion valve

Dimensions (mm)

Mod. NS "B"			1251	1401	1601	1801	2101	2401	1402
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Lenght	(C)	A/E	3780	3780	3780	4770	5750	5750	3780
Weight	kg	A/E	3888	3898	3968	5157	6149	6179	4138
Mod. NS "B"			**1602**	**1802**	**2002**	**2202**	**2352**	**2502**	**2652**
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Lenght	(C)	A/E	3780	4770	5750	5750	5750	5750	5750
Weight	kg	A/E	4158	4887	5648	5989	6539	6529	6555
Mod. NS "B"			**2802**	**3002**	**3202**	**3402**	**3602**	**3902**	**4202**
Height	(A)		2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200
Lenght	(C)	A/E	5750	7160	7160	8150	9140	10120	10120
Weight	kg	A/E	6565	7466	7566	8695	9494	10936	11216



Mod. NS "B"			4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
Height	(A)		2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	(B)		2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Lenght	(C)	A/E	11100	11100	11100	11100	11100	11100	14490	15470	15470	16450	16450
Weight	kg	A/E	11502	11718	12698	12998	13098	13198	15673	17115	17395	17639	17855

For transport reasons NS GLYCOL FREE sizes 6003 to 7203 are shipped separated; one module consisting of two compressors and standard electrical panel (placed in front of the unit) and one module with one compressor and the electrical panel placed on the compressor side beneath the condenser coil. On the site it is only necessary to connect the two sections electrically. For more information refer to the technical and/or installation manual.

Cod.: SNSGFUY.00 / 1201

AERMEC

NEW

TBX

R134a

Air cooled chillers with two-stage centrifugal compressor and axial fans
Cooling capacity from 259 to 861 kW

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com



Characteristics

- Available in 12 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
- 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.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **KRS: Evaporator trace heating. Factory fitted only.**
- **GP: Protective** grille. Condenser coil external protection against accidental or hail damage**. Factory fitted.**
- **PTW: Remote control of the chiller operating functions.**

	Accessory compatibility											
Mod. TBX	**1401**	**1801**	**2001**	**2302**	**2502**	**2652**	**2802**	**3202**	**3502**	**3702**	**3802**	**4102**
AER485P1	✔(x1)	✔(x1)	✔(x1)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
PTW	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. TBX L/E	**1401**	**1801**	**2001**	**2302**	**2502**	**2652**	**2802**	**3202**	**3502**	**3702**	**3802**	**4102**
GP300M [1]	✔											
GP400M [1]		✔										
GP500M [1]			✔	✔	✔							
GP 300M+300M [1]						✔						
GP 300M+400M [1]							✔	✔	✔			
GP 400M+400M [1]										✔		
GP 400M+500M [1]											✔	
GP 500M+500M [1]												✔
KRS [1]	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. TBX °/A	**1401**	**1801**	**2001**	**2302**	**2502**	**2652**	**2802**	**3202**	**3502**	**3702**	**3802**	**4102**
GP 300M [1]	✔											
GP 400M [1]		✔										
GP 500M [1]			✔	✔	✔							
GP 300M+300M [1]						✔						
GP 300M+400M [1]							✔	✔				
GP 400M+400M [1]									✔			
GP 400M+500M [1]										✔		
GP 500M+500M [1]											✔	✔
KRS [1]	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. TBX °/L	**1401**	**1801**	**2001**	**2302**	**2502**	**2652**	**2802**	**3202**	**3502**	**3702**	**3802**	**4102**
AVX	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
RIFTBX [1]	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Mod. TBX A/E	**1401**	**1801**	**2001**	**2302**	**2502**	**2652**	**2802**	**3202**	**3502**	**3702**	**3802**	**4102**
AVX	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

Note:
The number in brackets **(x2)** indicates the quantity to order.
(1) Accessory only factory fitted.

Unit Configurator

Combinando opportunamente le numerose opzioni disponibili, è possibile configurare ciascun modello in modo tale da soddisfare le più specifiche esigenze impiantistiche.

Configuration fields:

1 2 3 — Code
4 5 6 7 — Size
8 — Model
9 — Version
10 — Condenser coil
11 — Fan
12 — Power supply

Code:
TBX
Size:
1401, 1801, 2001, 2302, 2502, 2652, 2802, 3202, 3502, 3702, 3802, 4102
Model:
° - Cooling only, with evaporator to PED regulations
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

Mod. TBX			1401	1801	2001	2302	2502	2652	2802	3202*	3502*	3702*	3802*	4102*
Cooling capacity	°	kW	287	368,3	407,3	469,3	509,2	545,2	587,2	669,1	736	780,9	815,9	844,8
	L	kW	258,8	342,8	392,1	435,7	463,9	518,3	543,2	595	635,3	687,8	742,3	784,6
	A	kW	286,8	370,7	415,5	460,4	502,2	538,1	594,1	667,8	739,5	793,3	831,2	861
	E	kW	265,2	354,8	406,4	441,2	473,6	532,5	556	614	650,4	707,4	768,4	813,1
Total input power	°	kW	91,8	117,2	129,3	149	161,4	173	184,9	212,2	233,3	247,4	258,8	268,2
	L	kW	88,9	117,9	134,7	149,6	159,3	177,5	186,2	203,8	217,7	236,3	255	269
	A	kW	86	110,9	124,8	138,1	150,4	161,1	177,3	199,7	220,8	237,3	248,4	258,1
	E	kW	84,8	113,6	130,2	141,2	152,2	170,3	177	196,9	207,8	226,5	246,1	260,1
Evaporator water flow rate	°	l/h	49536	63468	70176	80840	87720	93912	101136	115240	126764	134504	140524	145512
	L	l/h	44646	59065	67577	75047	79911	89292	93568	102495	109444	118477	127858	135154
	A	l/h	49536	63984	71724	79464	86688	92880	102512	115240	127624	136912	143448	148608
	E	l/h	45790	61229	70176	76141	81755	91931	95976	105966	112282	122106	132633	140352
Evaporator pressure drop	°	kPa	36	17	15	15	15	15	14	15	16	17	15	16
	L	kPa	30	15	19	13	15	16	15	15	17	16	16	17
	A	kPa	50	41	43	44	44	44	41	43	45	46	45	48
	E	kPa	44	38	49	40	46	48	46	44	49	47	48	48
EER	°	W/W	3,13	3,14	3,15	3,15	3,16	3,15	3,18	3,15	3,15	3,16	3,15	3,15
	L	W/W	2,91	2,91	2,91	2,91	2,91	2,92	2,92	2,92	2,92	2,91	2,91	2,92
	A	W/W	3,33	3,34	3,33	3,33	3,34	3,34	3,35	3,34	3,35	3,34	3,35	3,34
	E	W/W	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	°	W/W	4,82	4,92	4,95	5,12	5,14	5,13	5,18	5,14	5,14	5,14	5,15	5,14
	L	W/W	4,69	4,77	4,76	4,97	4,97	4,96	5,00	4,97	4,97	4,98	4,97	4,96
	A	W/W	5,01	5,06	5,04	5,33	5,35	5,35	5,38	5,37	5,37	5,36	5,37	5,34
	E	W/W	4,85	4,89	4,82	5,15	5,13	5,13	5,15	5,16	5,14	5,15	5,15	5,14
Power supply		V/ph/Hz	400V/3/50Hz											
Total input current	°	A	147	195	216	242	260	280	299	355	389	412	431	447
	L	A	144	198	225	244	258	287	308	345	366	396	426	449
	A	A	134	179	200	217	235	251	276	322	355	382	399	413
	E	A	132	176	209	221	238	265	275	320	337	366	396	417
Maximum input current (FLA)	°	A	153	234	240	300	300	306	312	462	468	474	480	480
	L	A	153	234	240	300	300	306	312	462	462	468	474	480
	A	A	159	242	250	310	310	318	326	476	484	492	500	500
	E	A	159	242	250	310	310	318	326	476	476	484	492	500
Maximum starting current (LRA)	°	A	24	30	36	171	171	177	183	258	264	270	276	276
	L	A	24	30	36	171	171	177	183	258	258	264	270	276
	A	A	30	38	46	181	181	189	197	272	280	288	296	296
	E	A	30	38	46	181	181	189	197	272	272	280	288	296
Capacity modulation		A	stepless											
		A	30-100	30-100	30-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100	15-100
Compressor		type	centrifugal inverter oil-free											
		n°	1	1	1	2	2	2	2	2	2	2	2	2
Refrigerant		type	R134a											
Refrigerant circuit		n°	1	1	1	1	1	1	1	1	1	1	1	1
Air flow rate	°|A	m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000
	L|E	m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400
Fan	°|L	type	axial											
	A|E	type	Axial EC (Electronically Commutated)											
	L|E	type	6	8	10	10	10	12	14	14	16	18	20	20
	°|A	type	6	8	10	10	10	12	14	14	14	16	18	20
Evaporator		type	flooded shell & tube											
		n°	1	1	1	1	1	1	1	1	1	1	1	1
Maximum external air temperature		°C	42	42	42	42	42	42	42	42	42	42	42	42
Sound power	°|A	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93
	L	dB(A)	83	84	85	85	85	86	87	87	87	88	88	88
	E	dB(A)	81	82	83	83	83	84	85	85	85	86	86	86
Sound pressure	°|A	dB(A)	56	57	58	58	58	58	59	59	60	60	60	60
	L	dB(A)	51	52	53	53	53	53	54	54	54	55	55	55
	E	dB(A)	49	50	51	51	51	51	52	52	52	53	53	53

* Unit not EUROVENT certified

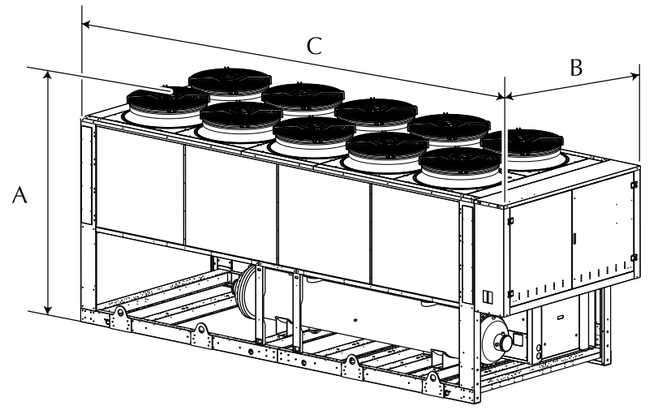
Data in accordance with EN14511-2:2011
Cooling

Entering water temperature	12°C
Leaving water temperature	7°C
External air temperature	35°C

Sound power:
Aermec determines the value of sound power on the basis of measurements made in accordance with ISO 9614-2, as required for Eurovent certification.

Sound pressure:
Measured in free field over a reflective plane (directivity factor Q = 2), at a distance of 10 metres from the outer surface of the unit, in accordance with ISO 3744.

Dimensions (mm)



Model. TBX			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
Height 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
Width 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
Length	°|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.: STBXUY.01 / 1202

IDROBLOC

Air cooled chiller with axial fan
With capacity from 3.5 up to 6.7 kW

R407C



IDROBLOC®
IDROBLOC H®

IDROBLOC® is a low-consumption water chiller assembly designed for outdoor installation, sized to provide a water flow sufficient to run a relatively high number of terminal units. The thermal head of water to the evaporator can be contained to 2.5°C; in practical terms, this means that the system can run fancoils in all rooms, though only operating the ones located in rooms that are occupied. The user can select which of the fancoils installed are to be activated, simply by turning individual units on or off, without ever having to adjust the water distribution circuit.
IDROBLOC® may be installed on the ground or wall-mounted. With a size similar to that of regular outdoor water boilers, the IDROBLOC® is perfectly suited for new or restructured domestic applications.

Features

- Unit for roof-hanging or floor-standing installation with brackets supplied (only for IDROBLOC and IDROBLOC H)
- All versions are supplied for use with R407C
- Cooling only and heat pump version
- Compact dimensions
- Helical fan unit with axial delivery
- Evaporator dimensioned for working with Δt = 2.5 °C
- Antifreeze electric heater for the storage tank
- Hydraulic circuit complete with pump, expansion tank, storage tank, water filter, flow switch and safety valve
- Adjustment and control fully electronic with microprocessor card
- Pre-arrangement for coupling with boiler, with immediate seasonal switching
- Possibility of powering the fan coils of all the environments, keeping in operation only those relative to rooms that are occupied
- Electric power used within the standard domestic availability limits
- Extreme simplicity of installation

Accessories

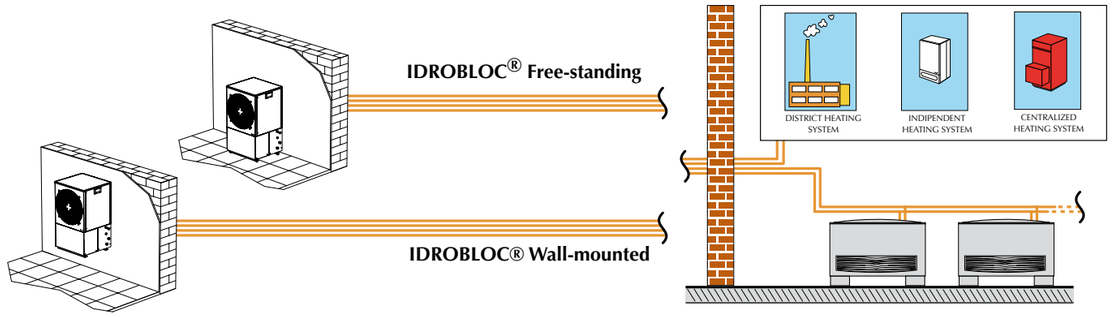
- **DCPX**: (only for IDROBLOC) Low temperature device for correct cooling mode operation with ambient temperatures from less than 20°C down to - 10°C.
- **PR3**: Simplified remote panel. Allows basic machine checks to be carried out (turning on and off, signalling of alarms and season changeover). Can be made remote with shielded cable up to 30 m.
- **PRD1**: Smart remote panel. Repeats at a distance the functions of the panel on the machine. Can be made remote with shielded cable up to 150 m.
- **SDP**: Electronic card for using PR3 accessory up to a distance of 150 m.
- **VT7**: Anti-vibration mounts.

Compatibility of accessories

IDROBLOC	DCPX 42	PR 3	PRD 1	SDP	VT 7
3 - 5	✔	✔	✔	✔	✔
3 H - 5 H		✔	✔	✔	✔

Installation

IDROBLOC® is quick and simple to install: simply position the unit, then make all water and electrical connections.
The unit can be connected to any type of heating assembly: autonomous or centralised boiler, or district (remote) heating systems.



Technical data

IDROBLOC		3	3 H	5	5 H
Cooling capacity	kW	3,5	3,2	6,7	6,7
Total input power*	kW	1,5	1,5	2,8	2,9
Input current*	A	7,3	7,3	13,2	13,8
Evaporator water flow rate	l/h (nominal)	600	550	1150	1150
	l/h (max.)	2000	2000	2000	2000
Effective head	kPa (nominal)	69	69	58	58
	kPa (max.)	32	59	26	26
Heating capacity	kW	-	3,85	-	7,8
Total input power*	kW	-	1,45	-	3,1
Input current*	A	-	7,2	-	14,7
Evaporator water flow rate	l/h (nominal)	-	660	-	1340
	l/h (max.)	-	2000	-	2000
Effective head	kPa (nominal)	-	67	-	56
	kPa (max.)	-	55	-	26
♪ Sound pressure	dB (A)	33,5	33,5	39	39
Total air flow rate	m^3/h	1200	1200	2300	2300
	Compressors	1	1	1	1
	type				
Peak current (compressor)	A	33,5	33,5	75	75
Storage tank capacity	l	25	25	25	25
Expansion tank capacity	l	1	1	2	2
Pump speed	n.	3	3	3	3
Water connections (female Gas)	ø (installation)	3/4″	3/4″	3/4″	3/4″
	ø (heating)	1/2″	1/2″	1/2″	1/2″

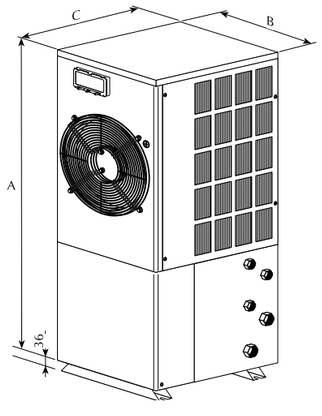
Power supply = 230V ~ 50Hz.

Performance values refer to the following conditions:
♪ Sound pressure measured in free field conditions at distance of 10 m and direction factor = 2.
Cooling:
- water outlet temperature 7 °C;
- ambient air temperature 35 °C
- Δt = 5 °C.

Riscaldamento:
- water outlet temperature 50 °C;
- ambient air temperature 7 °C D.B., 6 °C W.B.;.;
- Δt = 5 °C.

* = included the absorption of the circulation pump

Dimensions (mm)



IDROBLOC		3	3 H	5	5 H
Height	A	990	990	1063	1063
Width	B	450	450	606	606
Depth	C	450	450	563	563
Weight	Kg	79	80	116	119

Cod.: SIDBUY.04 / 0709

IDROBLOC C

Air cooled chiller with radial fan
With capacity from 3.5 up to 8.2 kW

R407C



IDROBLOC C is a low-consumption water chiller assembly designed for outdoor installation, sized to provide a water flow sufficient to run a relatively high number of terminal units. The thermal head of water to the evaporator can be contained to 2.5°C; in practical terms, this means that the system can run fancoils in all rooms, though only operating the ones located in rooms that are occupied. The user can select which of the fancoils installed are to be activated, simply by turning individual units on or off, without ever having to adjust the water distribution circuit.
It is possible to canalise the air delivery outwards by removing the grille for installation with free delivery.
IDROBLOC C must be floor-mounted and has similar dimensions to those of a normal boiler for outside installation.
IDROBLOC C is especially suitable for domestic use in new or renovated buildings.

Features

- Unit for roof-hanging installation
- All versions are supplied for use with R407C
- Cooling only version
- Compact dimensions
- Centrifugal fan with vertical air delivery for possible ducted installation
- Evaporator dimensioned for working with Δt = 2.5 °C
- Antifreeze electric heater for the plate heat exchanger (as standard)
- Antifreeze electric heater for the storage tank (RA accessory)
- Adjustment and control fully electronic with microprocessor card
- Pre-arrangement for coupling with boiler, with immediate seasonal switching
- Hydraulic circuit complete with pump, expansion tank, storage tank, water filter, flow switch and safety valve
- Possibility of powering the fan coils of all the environments, keeping in operation only those relative to rooms that are occupied
- Electric power used within the standard domestic availability limits
- Extreme simplicity of installation
- Metallic protective cabinet with rustproof polyester paint
- Color RAL 9002

Accessories

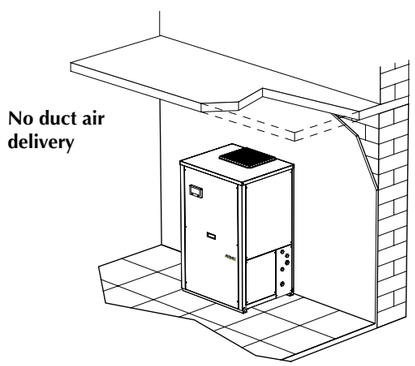
- **PR3**: Simplified remote panel. Allows basic machine checks to be carried out (turning on and off, signalling of alarms and season changeover). Can be made remote with shielded cable up to 30 m.
- **PRD1**: Smart remote panel. Repeats at a distance the functions of the panel on the machine. Can be made remote with shielded cable up to 150 m.
- **RA**: Antifreeze electric heater for the storage tank. It must be factory-mounted.
- **SDP**: Electronic card for using PR3 accessory up to a distance of 150 m.
- **VT7**: Anti-vibration mounts.

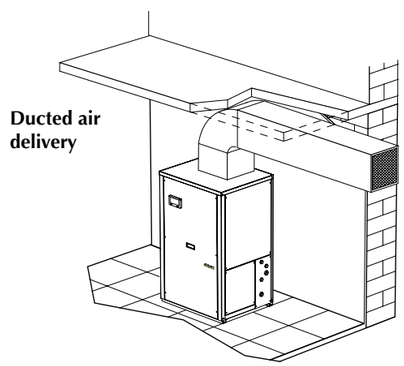
Compatibility of accessories

IDROBLOC	PR3	PRD1	RA	SDP	VT 7
3C - 5C - 8C	✔	✔	✔	✔	✔

Installation

IDROBLOC C is quick and simple to install: simply position the unit, then make all water and electrical connections.
The unit can be connected to any type of heating assembly: autonomous or centralised boiler, or district (remote) heating systems.





Technical data

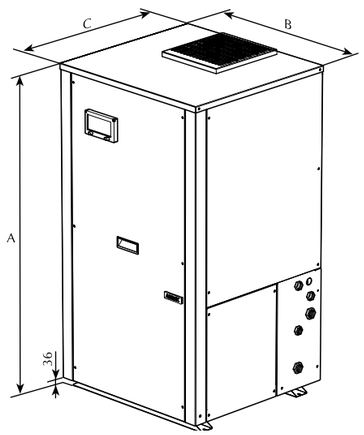
IDROBLOC		3 C	5 C	8 C
Cooling capacity	kW	3.5	6.8	8.2
Total input power*	kW	1.74	3.25	3.85
Input current*	A	8.2	14.8	19
Evaporator water flow rate	l/h (nominal)	602	1170	1410
Effective pressure	kPa (max.)	66	58	52
♪ Sound pressure	dB (A)	41	42	45
Total air flow rate (duct 900 mm)**		1150	2500	3000
Effective static pressure		20	50	50
Compressors	n.	1	1	1
	type	Rotary	Scroll	Scroll
Peak current (compressor)	A	33.5	75	103
Storage tank capacity	l	17	17	17
Expansion tank capacity	l	2	2	2
Pump speed	n.	3	3	3
Water connections (female Gas)	ø (installation)	3/4″ F Gas	3/4″ F Gas	3/4″ F Gas
	ø (heating)	1/2″ F Gas	1/2″ F Gas	1/2″ F Gas

Power supply = 230V ~ 50Hz.

Performance values refer to the following conditions:
♪ Sound pressure measured in free field conditions at distance of 10 m and direction factor = 2.
Cooling:
- water outlet temperature 7 °C;
- ambient air temperature 35 °C;
- Δt = 5 °C.

* = including circulator pump power consumption
** = with 900 mm channel without protection grille

Dimensions (mm)



IDROBLOC		3C	5 C	8C
Height	A	1118	1118	1145
Width	B	606	606	710
Depth	C	572	572	590
Weight	Kg	110	128	144

Cod.: SIDBCUY.00 / 0709

Venice

Water-cooled reversible heat pumps units
With capacities from 6.9 up to 9.7 kW

R407C



Aermec
participates in the EUROVENT
Program LCP / W / P / C
The products of interest can be
found on the website
www .eurovent-certification. com

Features

- Available in 3 sizes
- Versions:
  Venice: cooling only
  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.
- **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.
- **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	VP 14	VP 15	VPH 10	VPH 11	VT 7	VT M
20	✔	✔				✔	✔
20 H	✔			✔		✔	✔
25	✔		✔			✔	✔
25 H	✔				✔	✔	✔
30	✔		✔			✔	✔
30 H	✔				✔	✔	✔

Technical data

Mod. Venice		20	20 H	25	25 H	30	30 H
Cooling capacity	kW	6,9	6,9	8,2	8,2	9,7	9,7
Total input power*	kW	2,0	2,0	2,3	2,3	2,7	2,7
Input current	A	9,4	9,4	11,1	11,1	13,0	13,0
Evaporator water flow rate	l/h	1190	1190	1410	1410	1670	1670
Effective pressure to the installation circuit	kPa	63	63	61	61	59	59
Condenser water consumption	l/h	1500	1500	1780	1780	2100	2100
Condenser pressure drop	kPa	17,5	6,2	13,4	6,1	11,7	6,3
Condenser water consumption (16 °C)	l/h	400	400	470	470	560	560
Condenser water pressure drops (16 °C)	kPa	1,5	1,5	1,2	1,2	1,6	1,6
Heating capacity	kW	-	7,8	-	9,3	-	10,9
Total input power*	kW	-	2,7	-	3,2	-	3,7
Input current	A	-	12,6	-	14,9	-	17,5
Condenser water flow rate	l/h	-	1340	-	1600	-	1880
Effective pressure to the installation circuit	kPa	-	61	-	59	-	57
Evaporator water consumption (10 °C)	l/h	-	900	-	1080	-	1270
Evaporator pressure drop	kPa	-	2,2	-	2,2	-	2,3
♪ Sound pressure	dB(A)	48	48	48,5	48,5	49	49
Water connections**	Ø	1″	1″	1″	1″	1″	1″
Capacity of storage tank	l	23	23	23	23	23	23
Compressor	Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Max. current	A	15	15	18	18	24	24
Peak current	A	61	61	76	76	100	100

Power supply = 1~ 230V 50Hz.

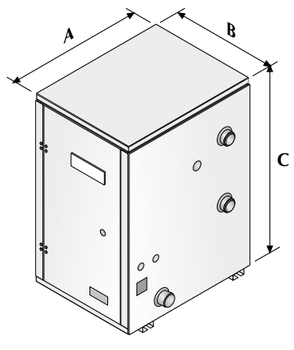
Performance values refer to the following conditions:
♪ Sound pressure measured in an 85 m3 semi-reverberant test chamber with reverberation time Tr = 0.5s.

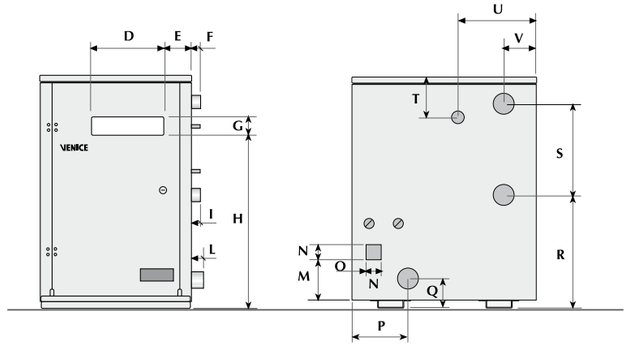
Cooling
- processed water temperature 7 °C;
- water inlet temperature to condenser 30 °C;
- Δt = 5 °C.

Heating
- processed water temperature 50 °C;
- water inlet temperature to evaporator 10 °C;
- Δt = 5 °C.

* including circulator pump power consumption.
** male Gas connection.

Dimensions (mm)





Mod. Venice		A	B	C	D	E	F	G	H	I	L
20	mm	504	404	625	190	83	20	48	465,5	20	25
25 - 30	mm	504	404	625	190	83	20	48	465,5	20	25

Mod. Venice		M	N	O	P	Q	R	S	T	U	V
20	mm	130	40	20	118	77	304	249	120	220	111
25 - 30	mm	130	40	20	118	77	304	249	120	220	111

Mod. Venice		20	25	30
Peso [Kg]	Venice	100	103	105
	Venice H	103	106	109

Cod.: SVNCUY.03 / 1202

AERMEC

NEW

WRL

Water-cooled chillers
Cooling capacity from 6.6 to 43.7 kW

R410A

Variable Multi Flow

VMF

EUROVENT CERTIFIED PERFORMANCE
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, 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 "KSAE" (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 9 sizes.

Models
• WRL ° (cooling only)
• WRL E (evaporating unit), ships with holding charge only.

Versions
• WRL-° (standard without buffer tank)
• WRL-A (with buffer tank)

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
- 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

- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **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.
- **MODU-485A**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

Accessory compatibility

WRL	025	030	040	050	070	080	100	140	160
VT	9	9	9	9	9	9	15	15	15
KSAE	✔	✔	✔	✔	✔	✔	✔	✔	✔
PR3	✔	✔	✔	✔	✔	✔	✔	✔	✔
MODU-485A	✔	✔	✔	✔	✔	✔	✔	✔	✔
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔	✔

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.

Configuration fields:

1 2 3 Code
4 5 6 Size
7 Field of use
8 Model
9 Version
10 Heat recovery
11 Geothermal side pump kit
12 System side pump kit
13 Field not used
14 Soft start
15 Power supply

CODE:
WRL

SIZE:
025 - 030 - 040 - 050 - 070 - 080 - 100 - 140 - 160

FIELD OF USE:
° - Standard with leaving water down to +4 °C
Y - Low temperature with leaving liquid down to -8 °C

MODEL:
° - Cooling only
E - Evaporating unit (shipped with holding charge only)

VERSION:
° - Standard
A - With buffer tank

HEAT RECOVERY:
° - Without heat recovery
D - Desuperheater

GEOTHERMAL SIDE PUMP KIT VERSION "°":
° - Without pump
Geothermal applications
B - 3 speed PUMP ON-OFF (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP (WRL 100-140-160 MODELS)
U - Single speed three-phase HIGH HEAD PUMP (WRL 100-140-160 MODELS)
F - Pump with phase cut control (MODELS UP TO WRL 080)
I - Inverter Pump (MODELS UP TO WRL 080)
Applications with bore hole water
V - 2-way modulating valve

Configuration example:
WRL050Y°°°°°S°

SYSTEM SIDE PUMP KIT:
Standard version "°"
° - Without pump
P - 3 speed ON-OFF PUMP (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP (WRL 100-140-160 MODELS)
N - Single speed three-phase HIGH HEAD PUMP (WRL 100-140-160 MODELS)

FIELD NOT USED
°

SOFT-START:
° - Without Soft-start
S - With Soft-start

POWER SUPPLY:
° - 400V 3N~ 50Hz
M - 230V ~ 50Hz (only for models WRL 025 - 030 - 040)

Technical Data

WRL Model			025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1	kW	6,6	8,3	11,3	-	-	-	-	-	-
	400V-3		6,7	8,4	11,3	14,7	19,2	21,8	29,4	38,4	43,7
Input power	230V-1	kW	1,47	1,78	2,50	-	-	-	-	-	-
	400V-3		1,43	1,70	2,42	3,05	3,93	4,59	6,09	7,84	9,17
Input current	230V-1	A	7,2	9,2	11,7	-	-	-	-	-	-
	400V-3		3,1	2,6	4,9	6,4	7,4	9,1	12,8	14,8	18,2
E.E.R.	230V-1	W/W	4,49	4,66	4,52	-	-	-	-	-	-
	400V-3		4,69	4,94	4,69	4,82	4,90	4,75	4,83	4,90	4,77
ESEER	230V-1	-	4,96	5,19	5,17	-	-	-	-	-	-
	400V-3		5,22	5,53	5,33	5,34	5,39	5,28	5,74	5,81	5,66
Evaporator water flow rate	230V-1	l/h	1140	1430	1940	-	-	-	-	-	-
	400V-3		1150	1450	1940	2530	3300	3750	5060	6600	7510
Pressure drop (system side) "o"	230V-1	kPa	15	17	23	-	-	-	-	-	-
	400V-3		15	17	23	21	26	30	25	34	38
Water consumption (geothermal side)	230V-1	l/h	1390	1740	2370	-	-	-	-	-	-
	400V-3		1390	1750	2360	3050	3970	4540	6100	7950	9090
Pressure drop (geothermal side)	230V-1	kPa	28	29	36	-	-	-	-	-	-
	400V-3		28	30	35	32	40	46	42	57	66
Compressor							SCROLL				
N° circuits/N° compressors			1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2	1 / 2
Capacity control		%	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 50 - 100	0 - 50 - 100	0 - 50 - 100
Evaporator							PLATES				
Hydraulic connections		ø	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14
Quantity		n°	1	1	1	1	1	1	1	1	1
Condenser							PLATES				
Hydraulic connections		ø	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14
Quantity		n°	1	1	1	1	1	1	1	1	1
Buffer tank							**Only for units with buffer tank / buffer tank and pumps**				
Tank capacity		l	100	100	100	100	100	100	150	150	150
Expansion vessel											
WRL with pump only		n°/l	1/2	1/2	1/2	1/2	1/2	1/2	1/8	1/8	1/8
WRL pump and buffer tank		n°/l	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
Sound data											
Sound power		dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure**		dB(A)	24,3	25,8	26,3	27,7	28,7	29,2	30,6	31,6	32,1

Cooling:

Evaporator
Inlet temperature 12 °C
Outlet temperature 7 °C
Condenser
Inlet temperature 30 °C
Outlet temperature 35 °C

Sound power
Aermec determines the sound power value on the basis of measurements taken in accordance with standard 9614-2, in compliance with the Eurovent certification.

** **Sound pressure**
in an unrestricted range on a refl ective plane (directional fact. Q=2), 10m away from the unit external surface, complying with ISO 3744.

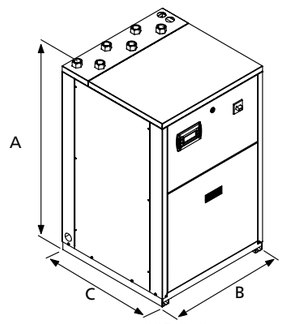
Technical Data "E"

WRL-E Model			025E	030E	040E	050E	070E	080E	100E	140E	160E
Cooling capacity	230V-1	kW	6,2	7,8	10,4	-	-	-	-	-	-
	400V-3		6,3	7,8	10,4	13,4	17,4	19,7	26,8	34,7	39,4
Input power	230V-1	kW	1,7	2,1	2,9	-	-	-	-	-	-
	400V-3		1,7	2,0	2,8	3,6	4,5	5,3	7,2	9,1	10,6
Input current	230V-1	A	8,3	10,5	12,8	-	-	-	-	-	-
	400V-3		3,4	3,2	5,4	7,2	8,3	10,2	14,3	16,6	20,5
E.E.R.	230V-1		3,56	3,65	3,63	-	-	-	-	-	-
	400V-3		3,70	3,87	3,75	3,73	3,83	3,71	3,73	3,83	3,71
Evaporator flow rate	230V-1	l/h	1070	1340	1790	-	-	-	-	-	-
	400V-3		1080	1340	1790	2300	2980	3390	4600	5970	6770
Pressure drop evaporator side "o"	230V-1	kPa	13	15	20	-	-	-	-	-	-
	400V-3		13	15	20	18	21	24	21	28	31

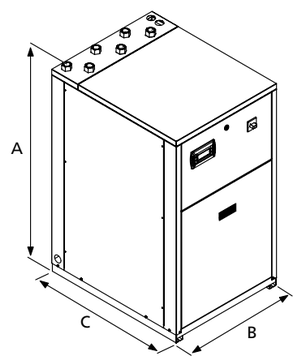
Cooling:

Condensing temperature 45°C
Outlet water temperature 7°C; Δt 5°C

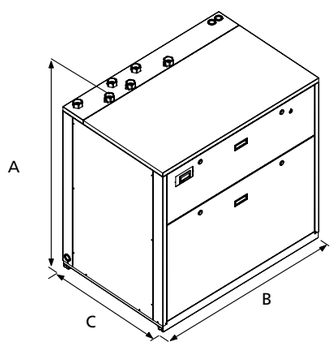
Dimensions (mm)



WRL 025-040

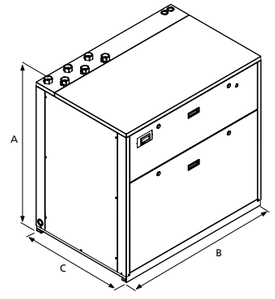


WRL 050-080

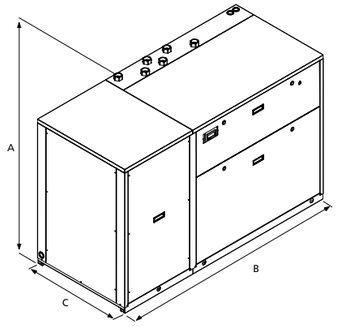


WRL 100-160

WRL		025	030	040	050	070	080	100	140	160
Height (A)	mm	976	976	976	1126	1126	1126	1126	1126	1126
Width (B)	mm	607	607	607	607	607	607	1157	1157	1157
Depth (C)	mm	628	628	628	798	798	798	798	798	798
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 025-080



WRL-A 100-160

WRL-A		025	030	040	050	070	080	100	140	160
Height (A)	mm	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126
Width (B)	mm	1.157	1.157	1.157	1.157	1.157	1.157	1.757	1.757	1.757
Depth (C)	mm	798	798	798	798	798	798	798	798	798
Weight *	Kg	190	200	210	230	250	260	340	350	360

* Weight with two heat exchangers and buffer tank without pumps.

Code : SWRLUY.02 / 1201

WRL

**Water-cooled reversible chillers
for the production of hot water up to 55 °C
Cooling capacity from 50 to 168 kW
Heating capacity from 53 to 187 kW**

R410A





PGD1
Simplified remote panel.
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:
• Water-side reversible system

Version
• WRL°= Cooling only: reversible water-side

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.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **STA:** 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.
- **STH:** 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.
- **S...I:** System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **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

WRL	180	200	300	400	500	550	600	650
AER485P1	✔	✔	✔	✔	✔	✔	✔	✔
VT	9	9	9	9	15	15	15	15
STA	✔	✔	✔	✔	✔	✔	✔	✔
STH	✔	✔	✔	✔	✔	✔	✔	✔
SSM	✔	✔	✔	✔	✔	✔	✔	✔
S...I (200-300-400-500)	✔	✔	✔	✔	✔	✔	✔	✔
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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15
Code	Size	Field of use	Model	Version	Heat recovery	Pumps (condenser side)	Pumps (evaporator side)	Field not used	Soft start	Power supply

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:
° - Reversible water-side
E - Evaporating unit (not available for heat pump versions) (shipped with holding charge only)
VERSION:
° - Standard
HEAT RECOVERY
° - Without heat recovery
D - Desuperheater
PUMPS (CONDENSER 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 (EVAPORATOR 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 Model		180	200	300	400	500	550	600	650
Cooling capacity	kW	49.6	64.0	74.1	85.4	99.5	128.8	149.1	167.6
Input power	kW	10.6	14.1	16.3	17.7	20.1	26.4	30.4	35.0
Input current	A	20.4	26.3	28.5	33.4	37.0	53.0	61.8	71.2
EER	-	4.66	4.55	4.55	4.82	4.96	4.88	4.91	4.78
Evaporator water flow rate	l/h	8520	11010	12750	14680	17120	22150	25650	2883
Evaporator pressure drop	kPa	27	45	45	65	31	48	54	65
Condenser water flow rate	l/h	10170	13190	15270	17430	20230	26230	30360	34250
Condenser pressure drop	kPa	29	49	60	85	31	50	56	69
Heating capacity	kW	52.9	71.6	78.8	92.6	105.2	145.2	166.5	187.2
Input power	kW	12.6	17.2	18.9	21.2	23.3	32.3	37.0	42.2
Input current	A	24.3	31.4	34.0	38.2	42.8	60.2	69.5	79.3
COP	-	4.18	4.16	4.16	4.38	4.51	4.49	4.51	4.44
Condenser water flow rate	l/h	9090	12310	13550	15930	18090	24980	28640	32200
Condenser pressure drop	kPa	22	37	45	64	27	47	54	67
Evaporator water flow rate	l/h	11890	16080	17690	21100	24140	33300	38190	42780
Evaporator pressure drop	kPa	50	82	81	118	60	104	117	144
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
Evaporator		PLATE							
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
Condenser		PLATE							
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)		PLATE							
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									
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

Performance in accordance with EN 14511.

Sound power
Aermec determines the sound power value on the basis of measurements taken in accordance with standard 9614-2, in compliance with the Eurovent certification.

[**] **Sound pressure**
in an unrestricted range on a refl ective plane (directional fact. Q=2), 10m away from the unit external surface, complying with ISO 3744.

Cooling:

Evaporator	
Inlet temperature	12 °C
Outlet temperature	7 °C
Condenser	
Inlet temperature	30 °C
Outlet temperature	35 °C

Heating:

Evaporator	
Inlet temperature	10 °C
Outlet temperature	7 °C
Condenser	
Inlet temperature	40 °C
Outlet temperature	45 °C

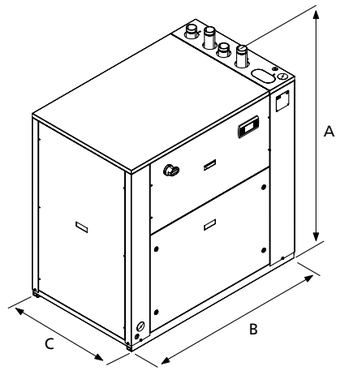
Technical data “WRL-E”

Model WRL-E		180	200	300	400	500	550	600	650
Cooling capacity	kW	46.0	60.1	69.6	80.1	90.6	121.3	140.2	158.7
Input power	kW	12.4	16.0	18.5	19.8	23.1	29.6	34.1	38.5
Input current	A	22.9	28.5	32.4	35.6	41.8	55.8	64.8	73.9
EER	-	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
Evaporator pressure drop	kPa	23	39	39	56	25	42	47	57
Discharge line	mm	28	28	28	28	35	35	35	35
Liquid line	mm	22	22	22	22	28	28	28	28

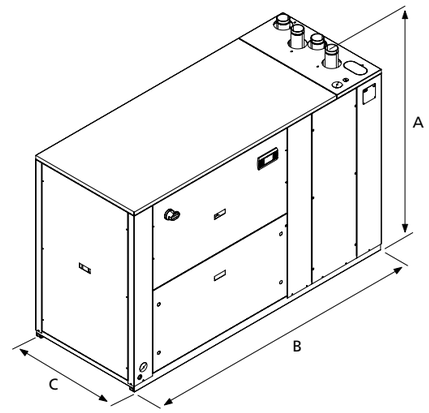
Cooling:

Condensing temperature	45°C
Outlet water temperature	7°C; Δt 5°C

Dimensions (mm)



WRL 180-400



WRL 500-650

WRL Model		180	200	300	400	500	550	600	650
Height (A)	mm	1380	1380	1380	1380	1380	1380	1380	1380
Width (B)	mm	1320	1320	1320	1320	2009	2009	2009	2009
Depth (C)	mm	845	845	845	845	845	845	845	845
Weight empty WRL-°	kg	375	375	381	388	518	594	670	715
Weight empty WRL-D	kg	383	383	389	396	528	604	681	726
Weight empty WRL-E	kg	346	346	351	358	460	536	615	660

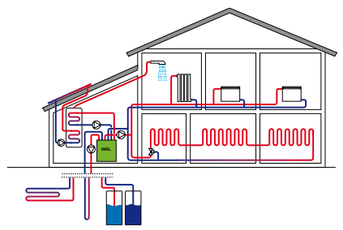
Code : SWRL2UY.03 / 1201

WRL–H

Water cooled reversible heat pumps for the production of hot water up to 60 °C
Cooling capacity from 6 to 40 kW
Heating capacity from 8 to 48 kW

R410A





EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec participates in the EUROVENT Programme: LCP / W / P / C
The products of interest can be found on the website
www .eurovent-certification. com



STA - STH
ACCESSORIES



PGD1
Simplified remote panel.
ACCESSORIES

- **HIGH EFFICIENCY**
- **POSSIBILITY OF HAVING: TOTAL HEAT RECOVERY. PRODUCTION OF HOT WATER USE UP TO 60 °C PRIORITY PRODUCTION OF DHW**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**
- **REVERSIBLE REFRIGERANT SIDE**

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.

Priority production of domestic hot water
The unit guarantees the prioritised production of DHW both in summer and winter. The temperature of DHW produced depends on the type of combination between the WRL heat pump and associated DHW devices.
The heat pump unit is shipped with a temperature sensor kit for the DHW tank.

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 9 sizes with refrigerant side reversing.

Versions
- WRL H
- WRL HA

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
- Pressostat as standard
- One temperature sensor kit for the DHW tank
- 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.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **STA:** 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.
- **STH:** 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.
- **S...I:** System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **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 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.

Accessory compatibility

WRL	025	030	040	050	070	080	100	140	160
AER485P1	✔	✔	✔	✔	✔	✔	✔	✔	✔
VT (version H)	9	9	9	9	9	9	15	15	15
VT (version HA)	9	9	9	9	9	9	15A	15A	15A
STA	✔	✔	✔	✔	✔	✔	✔	✔	✔
STH	✔	✔	✔	✔	✔	✔	✔	✔	✔
SSM	✔	✔	✔	✔	✔	✔	✔	✔	✔
S...I (200-300-400-500)	✔	✔	✔	✔	✔	✔	✔	✔	✔
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.

Configuration fields:

1 2 3 Code | 4 5 6 Size | 7 Field of use | 8 Model | 9 Version | 10 Heat recovery | 11 Geothermal side pumps kit | 12 System side pump kit | 13 Heat recovery pumps kit | 14 Soft start | 15 Power supply

CODE:
WRL

SIZE:
025 - 030 - 040 - 050 - 070 - 080 - 100 - 140 - 160

FIELD OF USE:
X - Electronic expansion valve with leaving liquid down to +4°C (for different temperature contact us)

MODEL:
H - Heat pump

VERSION:
° - Standard
A - With buffer tank

HEAT RECOVERY:
° - Without heat recovery
T - With total heat recovery **FOR HEAT PUMP VERSIONS ONLY**

VERSION "°/A" GEOTHERMAL SIDE PUMP KIT:
° - Without pump
Geothermal applications
B - 3-SPEED PUMP ON-OFF (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP
(WRL 100-140-160 MODELS)
U - Single speed three-phase HIGH HEAD PUMP (WRL 100-140-160)
F - Pump with phase cut control (MODELS UP TO WRL 080)
I - Pump Inverter recommended for TOTAL HEAT RECOVERY VERSIONS (MODELS UP TO WRL 080)
Applications with bore hole water
V - 2-way modulating valve

SYSTEM SIDE PUMP KIT:
Standard version "°"
° - Without pump
P - 3-speed PUMP ON-OFF (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP
(WRL 100-140-160 MODELS)
N - Single speed three-phase HIGH HEAD PUMP
(WRL 100-140-160 MODELS)
Version "A"
° - Without pump
P - 3-speed PUMP ON-OFF (UP TO MODEL WRL 080)
Single speed three-phase STANDARD PUMP
(WRL 100-140-160 MODELS)
J - 3-speed HIGH HEAD PUMP ON-OFF
(MODELS WRL 025-030-040)
N - Single speed three-phase HIGH HEAD PUMP
(MODELS WRL 050-070-080-100-140-160)

HEAT RECOVERY PUMP KIT:
° - Without pump
Q - Pump

SOFT-START:
° - Without Soft-start
S - With Soft-start

POWER SUPPLY:
° - 400V 3N~ 50Hz
M - 230V ~ 50Hz (only for size WRL 025 - 030 - 040)
4 - 230V~3~50Hz (only for size WRL 050-070-080-100-140-160)

Technical Data

WRL model			025H	030H	040H	050H	070H	080H	100H	140H	160H
Cooling capacity	230V-1	kW	6,3	7,9	10,3	-	-	-	-	-	-
	400V-3		6,3	8,1	10,4	13,7	17,7	20,2	27,4	35,3	40,3
Input power	230V-1	kW	1,67	1,90	2,42	-	-	-	-	-	-
	400V-3		1,57	1,81	2,29	3,03	4,22	4,95	6,08	8,45	9,91
Input current	230V-1	A	8,5	10,8	13,5	-	-	-	-	-	-
	400V-3		4,2	3,8	5,8	7,2	9,0	10,2	13,3	16,7	19,1
E.E.R.	230V-1	W/W	3,77	4,16	4,25	-	-	-	-	-	-
	400V-3		4,01	4,49	4,54	4,54	4,19	4,08	4,52	4,18	4,07
E.S.E.E.R.	230V-1	-	4,36	4,85	4,95	-	-	-	-	-	-
	400V-3		4,66	5,24	5,22	5,2	4,69	4,56	6,07	5,56	5,27
Evap water flow rate	230V-1	l/h	1090	1360	1780	-	-	-	-	-	-
	400V-3		1090	1400	1800	2370	3055	3490	4740	6100	6970
Evap pressure drop (system side)	230V-1	kPa	13	15	20	-	-	-	-	-	-
	400V-3		13	16	20	19	22	26	22	29	33
Cond water flow rate	230V-1	l/h	1370	1690	2190	-	-	-	-	-	-
	400V-3		1360	1700	2180	2890	3770	4325	5770	7525	8635
Cond pressure drop (geothermal side)	230V-1	kPa	22	22	30	-	-	-	-	-	-
	400V-3		22	23	29	29	36	41	37	48	56
Heating capacity	230V-1	kW	7,9	10,0	12,6	-	-	-	-	-	-
	400V-3		7,9	9,5	12,4	16,4	20,9	24,1	32,9	41,9	48,2
Input power	230V-1	kW	1,97	2,48	3,15	-	-	-	-	-	-
	400V-3		1,97	2,31	2,94	3,91	5,05	5,90	7,86	10,12	11,91
Input current	230V-1	A	10,5	13,1	16,6	-	-	-	-	-	-
	400V-3		4,9	4,9	6,7	8,5	10,7	12,2	16,1	20,7	23,9
C.O.P.	230V-1	-	4,01	4,02	4,01	-	-	-	-	-	-
	400V-3		4,01	4,12	4,22	4,20	4,14	4,09	4,19	4,14	4,05
Cond water flow rate	230V-1	l/h	1355	1710	2165	-	-	-	-	-	-
	400V-3		1355	1630	2125	2810	3580	4120	5630	7160	8220
Cond pressure drop (system side)	230V-1	kPa	20	22	29	-	-	-	-	-	-
	400V-3		20	20	28	28	32	37	35	43	51
Evap water flow rate	230V-1	l/h	1370	1690	2190	-	-	-	-	-	-
	400V-3		1360	1700	2180	2890	3770	4325	5770	7525	8635
Evap pressure drop (geothermal side)	230V-1	kPa	21	23	30	-	-	-	-	-	-
	400V-3		21	23	30	28	34	40	33	43	51

WRL model			025HA	030HA	040HA	050HA	070HA	080HA	100HA	140HA	160HA
Cooling capacity	230V-1	kW	6,3	7,9	10,3	-	-	-	-	-	-
	400V-3		6,3	8,1	10,4	13,8	17,8	20,3	27,8	35,9	41,03
Input power	230V-1	kW	1,86	2,06	2,57	-	-	-	-	-	-
	400V-3		1,76	1,97	2,44	3,22	4,39	5,12	5,93	8,10	9,46
Input current	230V-1	A	9,1	11,4	14,2	-	-	-	-	-	-
	400V-3		4,9	4,4	6,5	9,2	11,2	12,4	14,8	19,2	21,7
E.E.R.	230V-1	W/W	3,38	3,84	4,01	-	-	-	-	-	-
	400V-3		3,57	4,12	4,27	4,29	4,05	3,97	4,70	4,43	4,34
Evap water flow rate	230V-1	l/h	1.090	1.360	1.780	-	-	-	-	-	-
	400V-3		1.090	1.400	1.800	2.370	3.055	3.490	4.740	6.100	6.970
Evap pressure drop (system side)	230V-1	kPa	14	16	22	-	-	-	-	-	-
	400V-3		14	17	22	23	28	34	36	52	63
Cond water flow rate	230V-1	l/h	1.370	1.690	2.190	-	-	-	-	-	-
	400V-3		1.360	1.700	2.180	2.890	3.770	4.325	5.770	7.525	8.635
Cond pressure drop (geothermal side)	230V-1	kPa	22	22	30	-	-	-	-	-	-
	400V-3		22	23	29	29	36	41	37	48	56
Heating capacity	230V-1	kW	7,90	9,96	12,60	-	-	-	-	-	-
	400V-3		7,90	9,50	12,38	16,35	20,79	23,98	32,71	41,52	47,71
Input power	230V-1	kW	2,14	2,63	3,28	-	-	-	-	-	-
	400V-3		2,15	2,46	3,07	4,07	5,19	6,04	7,65	9,62	11,30
Input current	230V-1	A	12,0	14,6	18,1	-	-	-	-	-	-
	400V-3		6,4	6,5	8,2	11,2	13,5	15,0	17,7	22,8	25,8
C.O.P.	230V-1		3,69	3,79	3,84	-	-	-	-	-	-
	400V-3		3,67	3,86	4,03	4,02	4,01	3,97	4,28	4,32	4,22
Cond water flow rate	230V-1	l/h	1.355	1.710	2.165	-	-	-	-	-	-
	400V-3		1.355	1.630	2.125	2.810	3.580	4.120	5.630	7.160	8.220
Cond pressure drop (system side)	230V-1	kPa	21	24	32	-	-	-	-	-	-
	400V-3		21	22	31	33	40	48	55	75	93
Evap water flow rate	230V-1	l/h	1.370	1.690	2.190	-	-	-	-	-	-
	400V-3		1.360	1.700	2.180	2.890	3.770	4.325	5.770	7.525	8.635
Evap pressure drop (geothermal side)	230V-1	kPa	21	23	30	-	-	-	-	-	-
	400V-3		21	23	30	28	34	40	33	43	51

Performance in accordance EN 14511.

ATTENTION:
Please refer to the data of the HA version for units with buffer tank and pumps.
The technical data includes the input power of the standard geothermal and system side pumps.

Cooling: Evaporator	
Inlet temperature	12 °C
Outlet temperature	7 °C
Condenser	
Inlet temperature	30 °C
Outlet temperature	35 °C

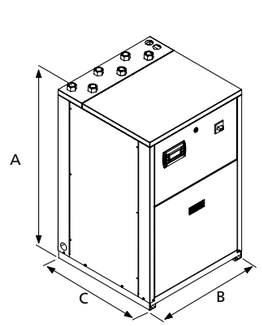
Heating: Evaporator	
Inlet temperature	10 °C
Outlet temperature	* °C
Condenser	
Inlet temperature	40 °C
Outlet temperature	45 °C

WRLH- °/A Model		025	030	040	050	070	080	100	140	160
Compressor						SCROLL				
N° circuits / N° compressors	n°/n°	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2	1 / 2
Capacity control	%	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 100	0 - 50 - 100	0 - 50 - 100	0 - 50 - 100
Evaporator						PLATE				
Hydraulic connections	ø	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14
Quantity	n°	1	1	1	1	1	1	1	1	1
Condenser						PLATE				
Hydraulic connections	ø	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14	F / 1"/14
Quantity	n°	1	1	1	1	1	1	1	1	1
Buffer tank						**Only for units with buffer tank / buffer tank-pump**				
Buffer tank capacity	l	100	100	100	100	100	100	150	150	150
Expansion vessel										
WRLH with pump	n°/l	1/2	1/2	1/2	1/2	1/2	1/2	1/8	1/8	1/8
WRLH pump and buffer tank	n°/l	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
Sound data										
Sound power	dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure	dB(A)	24,3	25,8	26,3	27,7	28,7	29,2	30,6	31,6	32,1

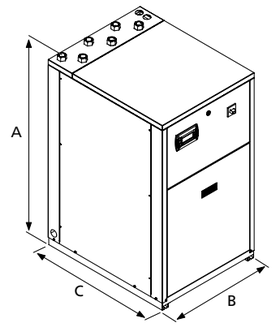
Sound power
Aermec determines the sound power value on the basis of measurements taken in accordance with standard 9614-2, in compliance with the Eurovent certification.

Sound pressure
in an unrestricted range on a refl ective plane (directional fact. Q=2), 10m away from the unit external surface, complying with ISO 3744.

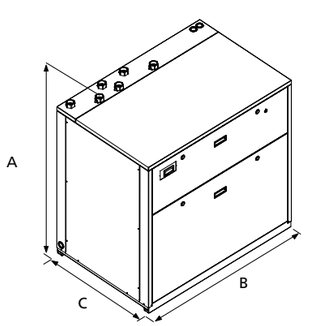
Dimensions (mm)



WRL 025-040

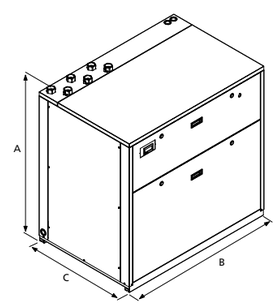


WRL 050-080

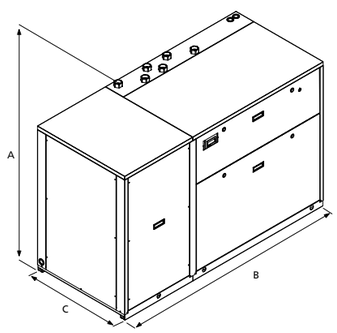


WRL 100-160

WRL		025H	030H	040H	050H	070H	080H	100H	140H	160H
Height (A)	mm	976	976	976	1.126	1.126	1.126	1.126	1.126	1.126
Width (B)	mm	607	607	607	607	607	607	1.157	1.157	1.157
Depth (C)	mm	628	628	628	798	798	798	798	798	798
Weight	kg	120	125	130	150	170	180	260	270	280



WRL 025-080



WRL 100-160

WRL		025HA	030HA	040HA	050HA	070HA	080HA	100HA	140HA	160HA
Height (A)	mm	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126
Width (B)	mm	1.157	1.157	1.157	1.157	1.157	1.157	1.757	1.757	1.757
Depth (C)	mm	798	798	798	798	798	798	798	798	798
Weight *	Kg	190	200	210	230	250	260	340	350	360

* Weight with two heat exchangers and buffer tank without pumps.

Cod.: SWRLHUY.06 / 1201

WRL–H

Water cooled reversible heat pumps for the production of hot water up to 55 °C
Cooling capacity from 45 to 157 kW
Heating capacity from 53 to 183 kW

R410A





PGD1
Simplified remote panel.
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.

Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **STA:** 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.
- **STH:** 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.
- **S...I:** System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **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	✔	✔	✔	✔	✔	✔	✔	✔
VT	9	9	9	9	15	15	15	15
STA	✔	✔	✔	✔	✔	✔	✔	✔
STH	✔	✔	✔	✔	✔	✔	✔	✔
SSM	✔	✔	✔	✔	✔	✔	✔	✔
S...I (200-300-400-500)	✔	✔	✔	✔	✔	✔	✔	✔
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.

Configuration fields:

1 2 3	4 5 6	7	8	9	10	11	12	13	14	15
Code	Size	Field of use	Model	Version	Heat recovery	Pumps (geothermal side)	Pumps (system side)	Field not used	Soft start	Power supply

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 Model		180	200	300	400	500	550	600	650
Cooling capacity	Kw	44,8	59,5	64,7	79,2	92,8	119,6	139,6	156,6
Input power	Kw	10,7	14,3	15,9	17,9	19,8	27,0	30,7	35,1
Input current	A	20	25	28	32	36	52	60	69
EER	-	4,21	4,15	4,07	4,41	4,69	4,43	4,55	4,46
Evaporator water flow rate	l/h	7710	10230	11120	13620	15960	20570	24010	26930
Evaporator pressure drop	kPa	22	37	36	52	25	40	40	49
Condenser water flow rate	l/h	9360	12450	13580	16400	19030	24750	28760	32370
Condenser pressure drop	kPa	31	52	51	74	34	56	57	71
Heating capacity	Kw	52,6	70,4	76,0	93,0	105,4	143,2	163,7	183,1
Input power	Kw	12,6	17,2	18,5	21,4	23,5	32,0	36,3	41,5
Input current	A	23	29	31	36	41	57	65	75
COP	-	4,16	4,09	4,10	4,35	4,48	4,47	4,51	4,42
Condenser water flow rate	l/h	9050	12100	13070	16000	18130	24620	28160	31490
Condenser pressure drop	kPa	28	48	48	70	29	52	54	67
Evaporator water flow rate	l/h	9360	12450	13580	16400	19030	24750	28760	32370
Evaporator pressure drop	kPa	31	52	51	74	34	56	57	71
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									
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

Performance in accordance with EN 14511.

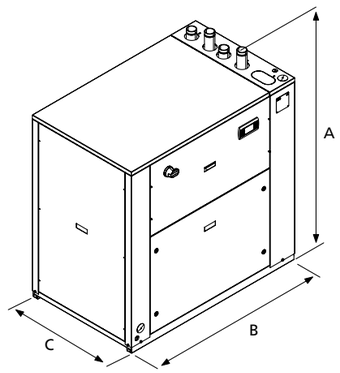
Sound power
Aermec determines the sound power value on the basis of measurements taken in accordance with standard 9614-2, in compliance with the Eurovent certification.

[**] **Sound pressure**
in an unrestricted range on a refl ective plane (directional fact. Q=2), 10m away from the unit external surface, complying with ISO 3744.

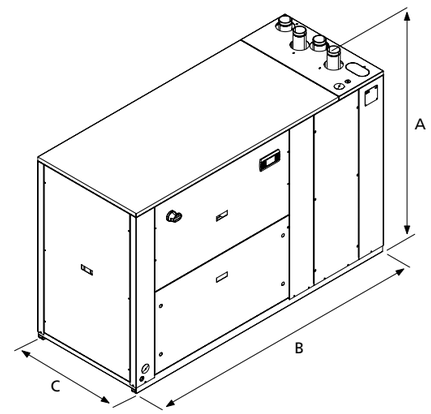
Cooling:
Evaporator
Inlet temperature 12 °C
Outlet temperature 7 °C
Condenser
Inlet temperature 30 °C
Outlet temperature 35 °C

Heating:
Evaporator
Inlet temperature 10 °C
Outlet temperature * °C
Condenser
Inlet temperature 40 °C
Outlet temperature 45 °C

Dimensions (mm)



WRLH 180-400



WRLH 500-650

WRLH Model		180	200	300	400	500	550	600	650
Height (A)	mm	1380	1380	1380	1380	1380	1380	1380	1380
Width (B)	mm	1320	1320	1320	1320	2009	2009	2009	2009
Depth (C)	mm	845	845	845	845	845	845	845	845
Weight empty	kg	370	370	381	388	522	598	708	753

The technical data given on this documentation is not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

Code : SWRLH2UY.02 / 1201

VXT

Water cooled GEOTHERMAL reversible heat pump
Heating, cooling and domestic hot water

R410A



- **DOMESTIC HOT WATER: DHW TEMPERATURE UP TO 55 °C**
- **180 LITRE DHW STORAGE TANK**
- **SUITABLE FOR GEOTHERMAL APPLICATION**
- **DESIGNED FOR SUPPLEMENTARY SOLAR PANEL INTEGRATION**

Features

The VXT heat pump provides winter heating and summer air conditioning of the home.
VXT also produces domestic hot water: DHW temperature up to 55 °C
Small indoor units making them very easy to install in a kitchen for example or even inside a cabinet like the type used for a fridge. The careful choice of the sound-absorbent materials makes the unit particularly quiet.

Main features:
Refrigerant circuit
- Refrigerant R410A
- Refrigerant side reversing
- Scroll compressors
  - High level of reliability
  - High efficiency to guarantee the production of water up to 55 °C, also suitable for traditional radiators.
- Externally isolated plate heat exchangers to decrease heat loss and optimised to obtain high efficiency
- Dual-flow electronic expansion valve
- High and low pressure transducers and pressure switches

Hydraulic circuit
The unit is equipped as standard with all components needed for correct and safe operation

System side: following included
- 3-speed circulating pump
- expansion vessel
- safety valve
- brazed plate heat exchanger

DHW side: following included
- 180 litre storage tank with coil for the production of hot water using the heat of condensation
- plate heat exchanger for the instantaneous production of hot water
- 2 supplementary electrical heaters
- tank with connections for solar panels
- water filter mounted at the inlet of the plate heat exchanger
- mixing valve with manual adjustment

Options
- Supplementary electric heaters

Geothermal application: it is possible to have
- ON-OFF pump
- Pump with phase cut control
- Inverter Pump

Bore hole water sheet application: possible to have
- 2-way modulating valve

Electronic controller
- The microprocessor supplied provides control of:
- hydraulic pumps on the system and geothermal circuit sides
- radiant plant temperature and humidity sensor
- DHW boiler temperature probe
- external air temperature sensor for the compensation of the system water set point
- system mixing valve
- optional supplementary solar control kit
- control of up to two ambient zones with digital inputs.

Accessories

- **KST** Solar heat kit.
- **KFC** Free-cooling kit
- **PGD0** Remote control panel
- **VT** Group of 4 anti-vibration mounts

	ACCESSORY COMPATIBILITY				
	VXT 06	**VXT 08**	**VXT 10**	**VXT 14**	**VXT 16**
KST	✔	✔	✔	✔	✔
KFC	06	08	10	14	16
PGD0	✔	✔	✔	✔	✔
VT 15	✔	✔	✔	✔	✔

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.

Configuration fields:

1 2 3	4 5	6	7	8	9
Code	Size	Applications	Electric heaters	Soft start	Power supply

Code:
VXT

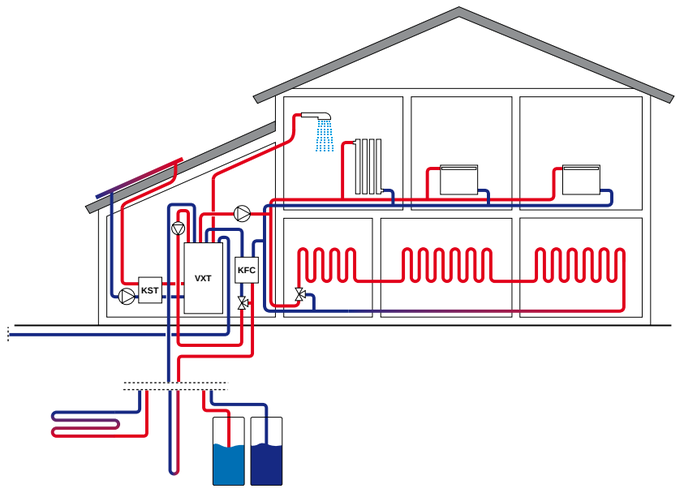
Size:
06 - 08 - 10 - 14 - 16

Applications:
P - ON-OFF pump **FOR GEOTHERMAL APPLICATIONS**
F - Pump with phase cut control **FOR GEOTHERMAL APPLICATIONS**
X - Inverter Pump **FOR GEOTHERMAL APPLICATIONS**
V - With 2-way modulating valve **FOR APPLICATIONS WITH BORE HOLE WATER**

Electric heaters:
° - Standard (without DHW supplementary heaters)
R - With DHW supplementary heaters

Soft-start: (standard for the 230V ~ 50Hz versions)
° - Standard (without soft-start)
S - With Soft-start kit 400V 3N~ 50Hz

Power supply:
M - 230V ~ 50Hz
T - 400V 3N~ 50Hz

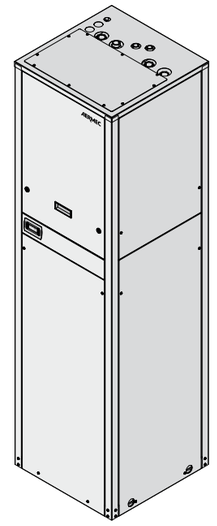


Technical Data

VXT			06	08	10	14	16
HEATING MODE OPERATION 30/35 °C - 10/5 °C (Under floor system)							
Heating capacity	kW	230V	7.6	9.7	12.3	-	-
		400V	7.6	9.9	12.3	16.4	18.6
Total power input	kW	230V	1.6	2.0	2.6	-	-
		400V	1.6	1.9	2.4	3.2	3.6
COP		230V	4,75	4,85	4,73	-	-
		400V	4,75	5,21	5,13	5,13	5,17
Current input	A	230V	8	10.6	13.3	-	-
		400V	3.6	3.4	5.3	7.3	7.5
Condenser water flow rate	l/h	230V	1310	1670	2120	-	-
		400V	1310	1700	2110	2820	3200
Evaporator water flow rate	l/h	230V	1050	1350	1700	-	-
		400V	1050	1390	1720	2300	2610
HEATING MODE OPERATION 40/45 °C - 10/5 °C (Fan coils)							
Heating capacity	kW	230V	7.52	9.28	12.18	-	-
		400V	7.52	9.47	11.76	16.24	17.79
Total power input	kW	230V	2.21	2.59	3.25	-	-
		400V	2.07	2.46	3.00	4.00	4.50
COP		230V	3,40	3,58	3,75	-	-
		400V	3,63	3,85	3,92	4,06	3,95
Current input	A	230V	10.7	13.4	16.4	-	-
		400V	4.2	4.6	6.3	8.9	8.8
Condenser water flow rate	l/h	230V	1290	1600	2090	-	-
		400V	1290	1630	2020	2790	3060
Evaporator water flow rate	l/h	230V	930	1170	1560	-	-
		400V	960	1230	1530	2140	2320
COOLING MODE OPERATION 23/18 °C - 30/35 °C (Under floor system)							
Cooling capacity	kW	230V	8.7	10.5	13.6	-	-
		400V	8.5	10.1	13.7	17.8	20.3
Total power input	kW	230V	1.7	2.0	2.5	-	-
		400V	1.6	1.9	2.4	3.3	3.5
EER		230V	5,12	5,25	5,44	-	-
		400V	5,31	5,32	5,71	5,39	5,80
Current input	kW	230V	8.2	10.7	13.5	-	-
		400V	3.7	3.6	5.4	7.5	7.5
Evaporator water flow rate	l/h	230V	1500	1810	2340	-	-
		400V	1450	1740	2360	3070	3500
Condenser water flow rate	l/h	230V	1770	2140	2750	-	-
		400V	1720	2060	2760	3600	4080
COOLING MODE OPERATION 12/7 °C - 30/35 °C (Fan coils)							
Cooling capacity	kW	230V	6.21	7.89	10.23	-	-
		400V	6.39	8.21	10.3	13.38	15.26
Total power input	kW	230V	1.71	2.01	2.51	-	-
		400V	1.61	1.92	2.41	3.32	3.52
EER		230V	3,63	3,93	4,08	-	-
		400V	3,97	4,28	4,27	4,03	4,34
Current input	kW	230V	8	10.6	13.3	-	-
		400V	3.6	3.4	5.3	7.3	7.5
Evaporator water flow rate	l/h	230V	1070	1360	1760	-	-
		400V	1100	1410	1770	2300	2620
Condenser water flow rate	l/h	230V	1350	1690	2170	-	-
		400V	1360	1730	2170	2840	3200
Maximum current input	A	230V	16.0	19.0	23.0	-	-
		400V	5.5	6.0	8.0	10.0	11.8
Starting current with Soft-start	A	230V	29.5	37.5	45.0	-	-
Starting current	A	400V	32.0	35.0	48.0	64.0	64.0
♪ Sound pressure	dB(A)	-	35.0	37.0	37.0	39.0	41.5

Performance in accordance with EN 14551:2004.
Sound pressure
Environment volume of 80 m^3, reverberation time 0.5 s, distance 3 metres and directivity factor 4.

Dimensions (mm)



VXT.		06	08	10	14	16
Height	mm	2000	2000	2000	2000	2000
Width	mm	560	560	560	560	560
Depth	mm	560	560	560	560	560
Weight	kg	254	256	268	283	291

Code.: SVXTUY.02 / 1003

NXW

Water cooled internal chiller and heat pump units with scroll compressors
Cooling capacity from 106 kW to 385 kW
Heating capacity from 119 kW to 419 kW

R410A

Aermec
participates in the EUROVENTProgram:
LCP/W/P/C - LCP/W/P/R
I prodotti interessati figurano sul sito
www .eurovent-certification. com



- **HIGH EFFICIENCY VERSION CLASS "A" EUROVENT**
- **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 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. The results are an **EER ≥ level of 5.05 and COP ≥ at 4.45 (Class A Eurovent)**

Models available
NXW°: water side reversible heat pump
NXWH: refrigerant side reversible heat pump
All models are available in low noise version

Evaporator and/or condenser side pump unit
The machine can be supplied with a hydronic module for both the evaporator and the condenser side; each module includes a water filter fitted, low or high head pump, flow switch, and a 25 litre system side expansion tank, thereby optimising space, time and installation costs.
It is possible to request a standby low or high head pump.

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.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
- **AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;
- **AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;
- **AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- **AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **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**: oft 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	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400
AER485P1											
ALL	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	•	•	•	•	•	•	•	•	•	•	•
ALL											
REMOTE CONTROL PANEL PGD1											
ALL	•	•	•	•	•	•	•	•	•	•	•
AVX											
°	319	319	301	301	301	303	310	314	316	316	315
° + 1 **PUMP**	320	320	320	320	320	312	651	665	653	654	654
° + 2 **PUMPS**	320	320	309	309	309	312	651	665	653	654	654
° + 3 **PUMPS**	320	320	309	309	309	312	651	665	653	654	654
° + 4 **PUMPS**	309	309	310	310	310	312	651	665	653	654	654
H	319	319	301	301	302	310	310	314	316	315	317
H + 1 **PUMP**	320	320	320	309	309	651	651	665	654	654	654
H + 2 **PUMPS**	320	320	303	309	311	651	651	665	654	654	654
H+ 3 **PUMPS**	309	309	303	311	312	651	651	665	654	654	654
H + 4 **PUMPS**	309	309	312	312	312	651	651	665	654	654	654
L	309	309	310	303	303	310	314	314	315	315	317
L+ 1 **PUMP**	321	321	311	311	651	651	652	653	654	659	659
L+ 2 **PUMPS**	311	311	31	311	651	651	652	653	654	659	659
L + 3 **PUMPS**	311	311	312	312	651	651	652	653	654	659	659
L + 4 **PUMPS**	312	312	312	310	651	651	652	653	654	659	659
HL	309	309	310	303	304	314	314	315	317	317	318
HL+ 1 **PUMP**	311	311	311	311	651	652	665	653	659	659	659
HL+ 2 **PUMPS**	311	311	312	313	651	652	665	653	659	659	659
HL + 3 **PUMPS**	312	312	312	313	651	652	665	653	659	659	659
HL + 4 **PUMPS**	312	312	312	313	651	652	665	653	659	659	659
E	319	319	301	301	301	303	310	314	316	316	315
E + 1 **PUMP**	320	320	320	320	320	312	651	665	653	654	654
E + 2 **PUMPS**	320	320	309	309	309	312	651	665	653	654	654
E + 3 **PUMPS**	320	320	309	309	309	312	651	665	653	654	654
E + 4 **PUMPS**	309	309	310	310	310	312	651	665	653	654	654
L E	309	309	310	303	303	310	314	314	315	315	317
L E + 1 **PUMP**	321	321	311	311	651	651	652	653	654	659	659
L E + 2 **PUMPS**	311	311	31	311	651	651	652	653	654	659	659
L E + 3 **PUMPS**	311	311	312	312	651	651	652	653	654	659	659
L E + 4 **PUMPS**	312	312	312	310	651	651	652	653	654	659	659
T	303	303	310	310	310	314	652	315	322	322	322
LT	312	312	651	651	652	652	652	323	324	324	324
RIF											
TUTTE	RIF98	RIF98	RIF95	RIF95	RIF95	RIF95	RIF95	RIF96	RIF97	RIF97	RIF97
DRE											
TUTTE	DRE501	DRE551	DRE601	DRE651	DRE701	DRE751	DRE801	DRE901	DRE1001	DRE1251	DRE1401

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.

Configuration fields:

1 2 3	4 5 6 7	8	9	10	11	12	13	14***	15***
Code	Size	Field of use	Model	Version	Evaporator	Heati recovery	Power supply	Pumps Evaporator	Pumps Condenser

Code:
NXW
Size:
0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400
Field of use:
° - Thermostatic expansion valve with leaving water above +4 °C
Y - Thermostatic expansion valve for low leaving liquid down to -8 °C
X - Electronic expansion valve also for low leaving liquid down to -8 °C
Model:
° - Heat pump with water side reversing
H - Heat pump with refrigerant side cycle reversing
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 - 230V 3~ 50Hz with circuit breakers*
5 - 500V 3 50Hz with circuit breakers**
Evaporator side pumps
° - 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
° - 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

Attention: the standard options are shown by the symbol °.
Combinations not possible: YD, YT, HE, HT, ET, T with evaporator or condenser side pumps.

** only available for sizes 0500-0700*
*** only available for sizes 0600-0650 and sizes 0800-1400*
**** "evaporator" is the heat exchanger that works as such in cooling; "condenser" is the heat exchanger that works as such in heating*

Technical Data

MODEL NXW "o" - "L"

Mod. NXW	U.M.	0500	0550	0600	0650	0700
Cooling capacity	kW	112	121	149	167	189
Total input power	kW	22,2	23,9	29,5	32,9	37,3
Evaporator water flow rate	l/h	19264	20812	25628	28758	32458
Evaporator pressure drop	kPa	30	35	32	40	43
Condenser water flow rate	l/h	22892	24718	30449	34141	38548
Condenser pressure drop	kPa	25	29	29	37	37
Heating capacity	kW	119	129	161	181	205
Total input power	kW	26,5	28,6	35,7	40,0	45,5
Condenser water flow rate	l/h	20468	22188	27692	31215	35195
Condenser pressure drop	kPa	20	23	24	31	31
Evaporator water flow rate	l/h	16138	17515	21859	24681	27763
Evaorator pressure drop	kPa	21	25	23	29	31
ENERGY EFFICIENCY						
EER	W/W	5,05	5,06	5,05	5,08	5,06
ESEER	W/W	6,01	6,02	6,01	6,04	6,02
COP	W/W	4,49	4,51	4,51	4,54	4,50
ELECTRICAL DATA		**400V 3 50Hz**				
Input current (cooling)	A	48,3	50,6	58,4	63	86
Input current (heating)	A	54	57	66	72	94
Maximum current	A	75	80	96	107	122
Starting current	A	240	245	227	238	289
CHARGE						
Refrigerant R410A(C1- C2) [1]	kg	6 - 6	6 - 6	7,8 - 7,8	7,8 - 7,8	9 - 9
COMPRESSOR		SCROLL				
N° compressors/circuits	n°/n°	3/2	3/2	4/2	4/2	4/2
EVAPORATOR (plate)						
Quantity	n°	1				
Hydraulic connection Victaulic	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2
CONDENSER (plate)						
Quantity	n°	1				
Hydraulic connection Victaulic	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2
EVAPORATOR SIDE PUMPS						
Evaporator available head (low head pump M - N)	kPa	91	82	70	89	69
Evaporator available head (high head pump O - P)	kPa	181	173	167	213	191
CONDENSER SIDE PUMPS						
Condenser available head (low head pump U - V - J)	kPa	86	76	92	67	111
Condenser available head (high head pump W - Z - K)	kPa	188	171	155	188	161
SOUND DATA						
♪Sound power "o"	dB(A)	78	79	79	80	82
Sound pressure "o"		46	47	47	48	50
♪ Sound power "L"		72	73	73	74	76
Sound pressure "L"		40	41	41	42	44

[1] This data is subject to variations
Performance values refer to the following conditions

Cooling:
- Leaving water temperature 7 °C
- Condenser entering water temperature 30 °C
- Δt = 5 °C

Heating:
- Leaving water temperature 45°C
- Evaporator entering water temperature 10 °C
- Δt = 5 °C
- Power supply: 400V 3~ 50 Hz

♪ Aermec determines the sound power value on the basis of measurements taken in accordance with ISO 9614-2, as required for Eurovent certification.
Performance values refer to cooling mode; "evaporator" and "condenser" mean the heat exchangers functioning as such in cooling mode.

Technical Data

MODEL NXW "o" - "L"

Mod. NXW	U.M.	750	800	900	1000	1250	1400
Cooling capacity	kW	223	258	292	326	355	385
Total input power	kW	43,6	50,4	57,8	64,5	70,3	76,1
Evaporator water flow rate	l/h	38392	44325	50188	56050	61097	66142
Evaporator pressure drop	kPa	47	49	55	35	36	36
Condenser water flow rate	l/h	45511	52565	59629	66594	72590	78585
Condenser pressure drop	kPa	45	60	38	29	34	36
Heating capacity	kW	242	279	318	356	388	419
Total input power	kW	53,5	61,8	70,4	79,2	86,2	93,2
Condenser water flow rate	l/h	41595	47995	54638	61281	66656	72030
Condenser pressure drop	kPa	38	50	32	25	29	30
Evaporator water flow rate	l/h	32850	37904	43140	48340	52574	56807
Evaorator pressure drop	kPa	34	36	41	26	27	27
ENERGY EFFICIENCY							
EER	W/W	5,12	5,11	5,05	5,05	5,05	5,05
ESEER	W/W	6,05	6,03	6,02	6,06	6,05	6,06
COP	W/W	4,52	4,52	4,51	4,5	4,5	4,5
ELECTRICAL DATA							
Input current (cooling)	A	94	102	120	138	140	143
Input current (heating)	A	105	115	135	154	160	165
Maximum current	A	146	169	193	217	231	248
Starting current	A	319	341	398	422	490	504
CHARGE							
Refrigerant R410A(C1- C2) [1]	kg	10-10	12-12	16-16	24-24	25 -25	27-27
COMPRESSOR							
N° compressors/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2
EVAPORATOR (plate)							
Quantity	n°			1			
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	2"1/2	3"	3"	3"
CONDENSER (plate)							
Quantity	n°			1			
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	2"1/2	3"	3"	3"
EVAPORATOR SIDE PUMPS							
Evaporator available head (low head pump M - N)	kPa	102	86	68	74	102	88
Evaporator available head (high head pump O - P)	kPa	152	180	166	177	167	158
CONDENSER SIDE PUMPS							
Condenser available head (low head pump U - V - J)	kPa	88	99	104	93	69	128
Condenser available head (high head pump W - Z - K)	kPa	182	158	168	215	190	166
SOUND DATA							
♪Sound power "o"	dB(A)	86	88	88	88	90	90
Sound pressure "o"		54	56	56	56	58	58
♪ Sound power "L"		80	82	82	82	84	84
Sound pressure "L"		48	50	50	50	52	52

[1] This data is subject to variations
Performance values refer to the following conditions

Cooling:
- Leaving water temperature 7 °C
- Condenser entering water temperature 30 °C
- Δt = 5 °C

Heating:
- Leaving water temperature 45°C
- Evaporator entering water temperature 10 °C
- Δt = 5 °C
- Power supply: 400V 3~ 50 Hz

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Performance values refer to cooling mode; "evaporator" and "condenser" mean the heat exchangers functioning as such in cooling mode.

MODEL NXW "H" - "HL"

Mod. NXW	U.M.	0500	0550	0600	0650	0700
Cooling capacity	kW	106	114	141	160	181
Total input power	kW	23,2	25	30,3	34,2	38,9
Evaporator water flow rate	l/h	18232	19608	24252	27496	31095
Evaporator pressure drop	kPa	17	20	19	24	24
Condenser water flow rate	l/h	22023	23693	29203	33089	37444
Condenser pressure drop	kPa	25	29	28	35	35
Heating capacity	kW	121	131	160	181	203
Total input power	kW	27,2	29,4	35,9	40,4	45,5
Condenser water flow rate	l/h	20812	22532	27520	31088	34982
Condenser pressure drop	kPa	20	23	24	31	31
Evaporator water flow rate	l/h	16138	17515	21859	24681	27763
Evaorator pressure drop	kPa	22	26	24	31	30
ENERGY EFFICIENCY						
EER	W/W	4,57	4,56	4,65	4,67	4,65
ESEER	W/W	5,73	5,71	5,76	5,85	5,76
COP	W/W	4,45	4,46	4,46	4,47	4,47
ELECTRICAL DATA				**400V 3 50Hz**		
Input current (cooling)	A	49	52	60	65	87
Input current (heating)	A	54	57	66	72	94
Maximum current	A	75	80	96	107	122
Starting current	A	240	245	227	238	289
CHARGE						
Refrigerant R410A(C1- C2) [1]		6,5-6,5	6,5-6,5	8,5-8,5	8,5-8,5	10,0-10,0
COMPRESSOR						
N° compressors/circuits	n°/n°	3/2	3/2	4/2	4/2	4/2
EVAPORATOR (plate)						
Quantity	n°			1		
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2
CONDENSER (plate)						
Quantity	n°			1		
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2
EVAPORATOR SIDE PUMPS						
Evaporator available head (low head pump M - N)	kPa	107	102	88	110	95
Evaporator available head (high head pump O - P)	kPa	202	192	183	235	217
CONDENSER SIDE PUMPS						
Condenser available head (low head pump U - V - J)	kPa	90	81	100	75	120
Condenser available head (high head pump W - Z - K)	kPa	191	176	161	196	170
SOUND DATA						
♪ Sound power "H"	dB(A)	78	79	79	80	82
Sound pressure "H"		46	47	47	48	50
♪ Sound power "HL"		72	73	73	74	76
Sound pressure "HL"		40	41	41	42	44

[1] This data is subject to variations
Performance values refer to the following conditions

Cooling:
- Leaving water temperature 7 °C
- Condenser entering water temperature 30 °C
- Δt = 5 °C

Heating:
- Leaving water temperature 45°C
- Evaporator entering water temperature 10 °C
- Δt = 5 °C
- Power supply: 400V 3~ 50 Hz

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Performance values refer to cooling mode; "evaporator" and "condenser" mean the heat exchangers functioning as such in cooling mode.

MODEL NXW "H" - "HL"

Mod. NXW	U.M.	750	800	900	1000	1250	1400
Cooling capacity	kW	212	243	278	314	342	370
Total input power	kW	45,5	52	60,4	68,8	74,7	80,6
Evaporator water flow rate	l/h	36431	41768	47876	53985	58831	63676
Evaporator pressure drop	kPa	29	38	24	19	22	24
Condenser water flow rate	l/h	43858	50272	57750	65229	71038	76847
Condenser pressure drop	kPa	42	55	36	28	32	34
Heating capacity	kW	240	276	314	353	386	419
Total input power	kW	53,8	62,1	70,6	79,2	86,7	94,1
Condenser water flow rate	l/h	41249	47515	54090	60665	66348	72030
Condenser pressure drop	kPa	38	50	32	25	29	30
Evaporator water flow rate	l/h	32850	37904	43140	48340	52574	56807
Evaorator pressure drop	kPa	37	49	31	24	28	30
ENERGY EFFICIENCY							
EER	W/W	4,66	4,67	4,61	4,56	4,58	4,59
ESEER	W/W	5,79	5,64	5,72	5,85	5,77	5,8
COP	W/W	4,46	4,45	4,45	4,45	4,45	4,45
ELECTRICAL DATA					**400V 3 50Hz**		
Input current (cooling)	A	95	104	122	140	144	147
Input current (heating)	A	105	115	135	154	160	165
Maximum current	A	146	169	193	217	231	248
Starting current	A	319	341	398	422	490	504
CHARGE							
Refrigerant R410A(C1- C2) [1]		11,0-11,0	13,0-13,0	18,0-18,0	27,0-27,0	27,0-27,0	29,0-29,0
COMPRESSOR							
N° compressors/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2
EVAPORATOR (plate)							
Quantity	n°				1		
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	3"	3"	3"	3"
CONDENSER (plate)							
Quantity	n°				1		
Hydraulic connection Victaulic	Ø	2"1/2	2"1/2	3"	3"	3"	3"
EVAPORATOR SIDE PUMPS							
Evaporator available head (low head pump M - N)	kPa	131	102	104	95	121	108
Evaporator available head (high head pump O - P)	kPa	182	194	200	197	185	175
CONDENSER SIDE PUMPS							
Condenser available head (low head pump U - V - J)	kPa	94	109	111	99	76	135
Condenser available head (high head pump W - Z - K)	kPa	187	166	174	221	198	176
SOUND DATA							
♪ Sound power "H"	dB(A)	86	88	88	88	90	90
Sound pressure "H"		54	56	56	56	58	58
♪ Sound power "HL"		80	82	82	82	84	84
Sound pressure "HL"		48	50	50	50	52	52

[1] This data is subject to variations
Performance values refer to the following conditions

Cooling:
- Leaving water temperature 7 °C
- Condenser entering water temperature 30 °C
- Δt = 5 °C

Heating:
- Leaving water temperature 45°C
- Evaporator entering water temperature 10 °C
- Δt = 5 °C
- Power supply: 400V 3~ 50 Hz

♪ Aermec determines the sound power value on the basis of measurements taken in accordance with ISO 9614-2, as required for Eurovent certification.
Performance values refer to cooling mode; "evaporator" and "condenser" mean the heat exchangers functioning as such in cooling mode.

Technical Data

MODEL NXW "E" - "EL"

Mod. NXW	U.M.	0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity	kW	105	113	139	156	177	209	241	273	305	332	360
Total input power	kW	24,9	26,8	33	36,9	41,7	48,8	56,5	64,7	72,3	78,8	85,3
Evaporator water flow rate	l/h	18031	19480	23988	26918	30381	35935	41488	46976	52463	57187	61909
Evaporator pressure drop	kPa	26	31	28	35	38	41	43	48	31	32	32
ENERGY EFFICIENCY												
EER	W/W	4,22	4,23	4,22	4,24	4,23	4,28	4,27	4,22	4,22	4,22	4,22
ELECTRICAL DATA							**400V 3 50Hz**					
Input current (cooling)	A	54,1	56,7	65,4	70,6	96,3	105,3	114,2	134,4	154,6	156,8	160,2
Maximum current	A	75	80	96	107	122	146	169	193	217	231	248
Starting current	A	240	245	227	238	289	319	341	398	422	490	504
CHARGE												
Refrigerant R410A(C1- C2) [1]	kg						ONLY WITH HOLDING CHARGE					
COMPRESSOR							SCROLL					
N° compressors/circuits	n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
EVAPORATOR (plate)												
Quantity							1					
Hydraulic connection	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	3"	3"	3"
CONDENSER (plate)												
Quantity	n°						1					
Hydraulic connection Victaulic	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	3"	3"	3"
Sound data												
♪ Sound power	dB(A)	78	79	79	80	82	86	88	88	88	90	90
Sound pressure		46	47	47	48	50	54	56	56	56	58	58
♪ Sound power		72	73	73	74	76	80	82	82	82	84	84
Sound pressure		40	41	41	42	44	48	50	50	50	52	52

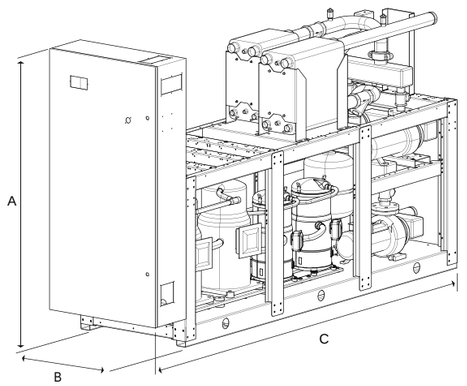
[[1] This data is subject to variations.

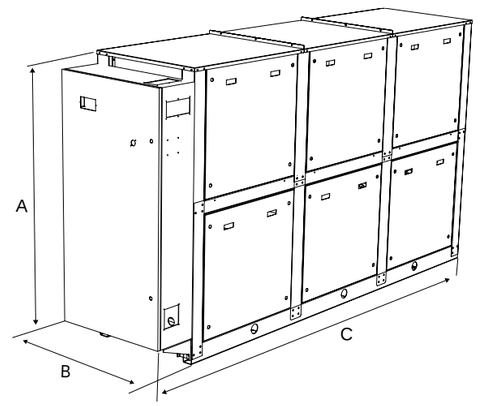
Performance values refer to the following conditions:
Cooling:
- Leaving water temperature 7 °C
- Condensing temperature 45 °C
  Δt = 5 K

* Performance values refer to cooling mode.

♪ Aermec determines the sound power value on the basis of measurements taken in accordance with ISO 9614-2, as required for Eurovent certification.

Dimensions (mm)





Mod. NXW	vers	U.M.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400
Height(A)	"O"	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	1790	1790	1790	1790	1790	2090	2354	2354	2354	2354	2354
Weight		kg	578	582	682	690	727	882	989	1180	1417	1461	1539
Height(A)	"L"	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	2090	2090	2090	2090	2090	2090	2354	2354	2354	2354	2354
Weight		kg	750	755	854	863	900	1054	1187	1378	1615	1659	1737
Height(A)	PUMPS "O"	mm	1775	1775	1775	1775	1775	1775	1775	1850	1850	1850	1850
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	3020	3020	3020	3020	3020	3020	3420	3420	3420	3420	3420
Height(A)	PUMPS "L"	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	3020	3020	3020	3020	3020	3020	3420	3420	3420	3420	3420
Height(A)	"H"	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	1790	1790	1790	1790	1790	2090	2354	2354	2354	2354	2354
Weight		kg	628	633	734	743	791	948	1042	1275	1545	1577	1657
Height(A)	"HL"	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	2090	2090	2090	2090	2090	2090	2354	2354	2354	2354	2354
Weight		kg	801	805	907	915	963	1121	1240	1473	1743	1775	1855
Height(A)	PUMPS "H"	mm	1775	1775	1775	1775	1775	1775	1775	1850	1850	1850	1850
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	3020	3020	3020	3020	3020	3020	3420	3420	3420	3420	3420
Height(A)	PUMPS "HL"	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	3020	3020	3020	3020	3020	3020	3420	3420	3420	3420	3420
Height(A)	E	mm	1835	1835	1835	1835	1835	1775	1775	1775	1820	1820	1820
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	1790	1790	1790	1790	1790	2090	2354	2354	2354	2354	2354
Height(A)	EL	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width(B)		mm	800	800	800	800	800	800	800	800	800	800	800
Lentgh(C)		mm	2090	2090	2090	2090	2090	2090	2354	2354	2354	2354	2354

Cod.: SNXWUY.05 / 1201

AERMEC

WSA

Water cooled chillers and heat pumps with twin-rotor screw compressor
Cooling capacity from 179 to 715 kW

R134a

High–efficiency versions

EUROVENT CERTIFIED PERFORMANCE
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participates in the EUROVENT
Program: LCP / W / P / C
The products of interest can be
found on the website
www .eurovent-certification. com



Characteristics

- Available in 11 sizes (4 sizes single compressor and 7 sizes dual compressor)
- Manufactured with refrigerant R134a
- Versions for cooling only, heat pump or evaporating unit (delivered with holding charge only)
- Partial or total heat recovery options
- Standard Version (°):
- leaving water temperature up to 55 °C in heat pump mode
- Version L:
- Low noise with sound absorbent galvanised sheet panels
- 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.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **SAP**: A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **MULTICHILLER**: 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.	0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
AERWEB300		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AER485P1		✔	✔	✔	✔	✔(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	652	652	656	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.

Fields configurator:

1 2 3	4 5 6 7	8	9	10	11	12	13
Code	Size	Expansion device	Model	Heat recovery	Version	Condenser	Power supply

Code:
WSA
Size:
0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502, 2802
Expansion device:
° - Standard, minimum leaving water temperature down to +4 °C
X - With electronic expansion valve max. temp. of water produced: +4°C (for lower temperatures please contact us)
Model:
° - Standard
Heat recovery:
° - Without heat recovery
D - With desuperheaters (partial heat recovery)
T - With total heat recovery
Version:
° - Standard
L - Low noise
Condenser:
° - PED regulation
E - Evaporating unit (delivered with holding charge only)
Power supply:
° - 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 sizes 2502 and 2802)
5 - 500V 3~ 50Hz with fuses
9 - 500V 3~ 50Hz with circuit breakers

Attention: The standard options are shown by the symbol °

Example of configuration code: **WSA1602L8**
This is a WSA unit, size 1602 in low noise version, with heat exchangers to PED regulations, and with electrical panel and compressor motors at 400V 3~ 50Hz with circuit breakers. Since each option is uniquely identified it is not necessary to indicate the standard options (represented by °) in the unit configurator.

Technical Data

Mod WSA		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Cooling capacity	kW	179	213	234	294	357	423	470	529	588	663	715
Total input power	kW	37	42	48	58	74	83	97	106	115	131	140
Water flow rate evaporator	l/h	30790	36640	40250	50570	61400	72760	80840	90980	101140	114040	122980
Pressure drop evaporator	kPa	20	20	19	23	36	40	41	45	48	53	62
Water flow rate condenser	l/h	37150	43860	48500	60540	74130	87030	97520	109280	120920	136570	147060
Pressure drop condenser	kPa	27	27	26	31	50	55	58	62	67	75	88
Heating capacity	kW	191	218	245	308	375	434	491	557	625	687	767
Total input power	kW	43	48	56	70	86	97	111	126	140	151	172
Water flow rate condenser	l/h	32850	37500	42140	52980	64500	74650	84450	95810	107500	118160	131920
Pressure drop condenser	kPa	41	20	19	24	36	39	42	46	50	55	74
Water flow rate evaporator	l/h	25460	29240	32510	40940	49710	57960	65360	74160	83420	92190	102340
Pressure drop evaporator	kPa	12	12	12	14	22	24	25	27	29	32	44
E.E.R.	W/W	4,84	5,07	4,88	5,07	4,82	5,10	4,85	4.97	5,11	5,06	5,11
E.E.R. *	W/W	6,02	6,31	6,07	6,31	5,99	6,34	6,03	-	-	-	-
EEEC(1)		B	A	B	A	B	A	B	B	A	A	A
C.O.P.	W/W	4,44	4,54	4,38	4,40	4,36	4,47	4,42	4.43	4,46	4,55	4,46
C.O.P. *	W/W	5,36	5,48	5,28	5,31	5,26	5,39	5,33	-	-	-	-
EEEC(1)		B	A	B	B	B	A	B	B	A	A	A
Power supply		400V 3~ 50 Hz										
Input current cooling	A	66	74	82	101	132	148	164	184	203	233	233
Input current heating	A	73	82	91	117	146	164	183	209	235	257	258
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575	575
Compressor	Type	Twin-rotor screw										
Quantity	n°	1	1	1	1	2	2	2	2	2	2	2
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100
Part load (electronic expansion valve)	%	25-100	25-100	25-100	25-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Evaporator	Type	Plate										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Evaporator hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Condenser	Type	Plate										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Condenser hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Sound pressure(2)	db(A)	54	54	54	60	57	57	57	61	63	63	63

Mod WSA - E		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Cooling capacity	kW	163	192	212	263	326	385	428	481	539	601	676
Total input power	kW	41	47	54	66	82	93	108	120	132	146	159
Water flow rate evaporator (7 °C)	l/h	28040	33020	36460	45240	56070	66220	73620	82790	92710	103370	116270
Pressure drop evaporator	kPa	18	18	17	21	33	37	38	40	45	49	59
E.E.R.	W/W	3.98	4.09	3.93	3.98	3.98	4.14	3.96	4.00	4.08	4.12	4.25
EEEC(1)		A	A	A	A	A	A	A	A	A	A	A
Power supply		400V 3~ 50 Hz										
Input current cooling	A	72	81	90	113	144	162	180	204	226	254	272
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575	575
Compressor	Type	Twin-rotor screw										
Quantity	n°	1	1	1	1	2	2	2	2	2	2	2
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100
Part load (electronic expansion valve)	%	25-100	25-100	25-100	25-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Evaporator	Type	Plate										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Evaporator hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Sound pressure(2)	db(A)	54	54	54	60	57	57	57	63	63	63	63

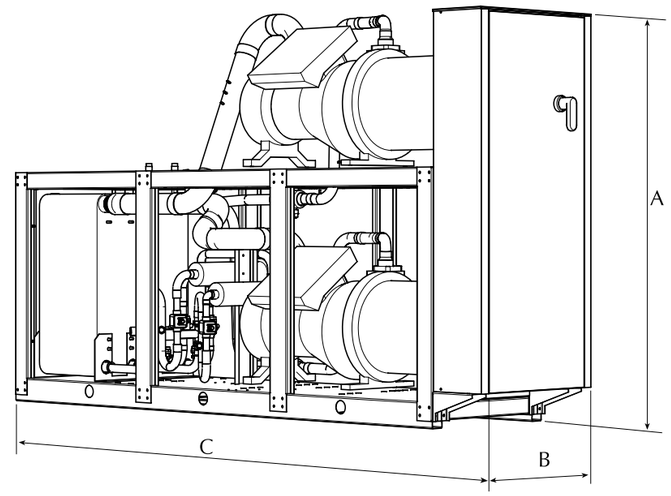
(1) EEEC EUROVENT energy efficiency class
(2) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Cooling:
- leaving water temperature 7 °C
- entering condenser water temperature 30 °C
- Δt = 5K

Evaporating unit:
- leaving evaporator water temperature 7 °C
- refrigerant condensing temperature 45 °C
- Δt = 5K

Heating:
- leaving water temperature 45 °C
- entering evaporator water temperature 10 °C
- Δt = 5 K

Dimensions (mm)



Mod WSA (°E - L)		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Height (A) °- E	mm	1775	1775	1775	1775	1975	1975	2005	1985	2065	2065	2065
Height (A) L - LE	mm	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	810	810	810	810	810	810	810
Length (C)	mm	2960	2960	2960	3360	2960	2960	2960	3360	3360	3360	3360
	kg (°)	1251	1301	1357	1788	2028	2097	2169	2598	3000	3095	3095
Weight	kg (L)	1379	1429	1485	1934	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	1479	1529	1585	2045	2256	2325	2397	2855	3257	3352	3352

Mod WSA (° - L)		0701 T	0801 T	0901 T	1101 T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
Height (A) °	mm	2000	2000	2000	2000	2050	2050	2050	2050	2065	2065	2065
Height (A) L	mm	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	1250	1250	1250	1250	1250	1250	1250
Length (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.: SWSAUY.14 / 1201

WSB

Water cooled chillers and heat pumps with twin-rotor screw compressor
Cooling capacity from 172 to 704 kW
Heating capacity from 184 to 741 kW

R134a

EUROVENT CERTIFIED PERFORMANCE
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Feaures

- Available in 11 sizes (4 sizes single compressor and 7 sizes dual compressor)
- Manufactured with refrigerant R134a
- Versions for cooling only, heat pump or evaporating unit (delivered with holding charge only)
- Partial or total heat recovery options
- Standard Version (°):

- leaving water temperature up to 55 °C in heat pump mode

- Version L:

- Low noise with sound absorbent galvanised sheet panels
- 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.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **SAP:** A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **MULTICHILLER:** 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.

Accessory compatibility

Mod	Vers.	0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
AERWEB300		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AER485P1		✔	✔	✔	✔	✔(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	651	653	656	658	658	667	660	661	661
	E	668	668	668	669	670	670	670	671	672	672	672
	D	651	651	652	653	658	658	659	667	660	661	661
	T	651	652	652	654	662	662	662	663	664	664	664
	DE	668	668	668	669	670	670	670	671	672	672	672
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.

Configuration Fields:

1 2 3	4 5 6 7	8	9	10	11	12	13
Code	Size	Expansion device	Model	Heat recovery	Version	Condenser	Power supply

Code:
WSB
Size:
0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502, 2802
Expansion device:
° - Standard, minimum leaving water temperature down to +4 °C
X - With electronic expansion valve
Model:
° - Standard
Heat recovery:
° - Without heat recovery
D - With desuperheaters (partial heat recovery)
T - With total heat recovery
Version:
° - Standard
L - Low noise

Condenser:
° - PED regulation
E - Evaporating unit (delivered with holding charge only)
Power supply:
° - 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 sizes 2502 and 2802)
5 - 500V 3~ 50Hz with fuses
9 - 500V 3~ 50Hz with circuit breakers

Attention: The standard options are shown by the symbol °

Example of configuration code: WSB1602L8
This is a WSB unit, size 1602 in low noise version, with heat exchangers to PED regulations, and with electrical panel and compressor motors at 400V 3~ 50Hz with circuit breakers. Since each option is uniquely identified it is not necessary to indicate the standard options (represented by °) in the unit configurator.

Technical Data

Mod WSB		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Cooling capacity	kW	172	201	226	281	344	397	453	507	566	648	704
Total input power	kW	37	42	49	58	74	84	97	107	117	132	140
Water flow rate evaporator	l/h	29580	34570	38870	48330	59170	68280	77920	87150	97350	111460	121090
Pressure drop evaporator	kPa	40	35	30	34	52	57	54	56	58	57	67
Water flow rate condenser	l/h	35950	41800	47300	58310	71900	82730	94600	105520	117480	134160	145170
Pressure drop condenser	kPa	56,0	47,8	42,2	47,3	73,0	79,0	77,0	79	82,0	81,0	95,0
Heating capacity	kW	184	211	241	303	361	417	474	540	606	677	741
Total input power	kW	44	49	56	71	87	98	112	127	141	153	173
Water flow rate condenser	l/h	31650	36290	41450	52120	62090	71720	81530	92820	104230	116440	127450
Pressure drop condenser	kPa	41	35	31	36	54	57	56	63	62	59	80
Water flow rate evaporator	l/h	24080	27860	31820	39900	47130	54870	62260	71030	79980	90130	97700
Pressure drop evaporator	kPa	24	21	19	21	31	34	33	34	36	35	47
E.E.R.	W/W	4,65	4,79	4,61	4,84	4,65	4,73	4,67	4.74	4,84	4,91	5,03
E.E.R. *	W/W	-	5,96	5,73	6,02	-	5,88	5,81	-	-	-	-
EEEC[1]		B	B	B	B	B	B	B	B	B	B	B
C.O.P.	W/W	4,18	4,31	4,30	4,27	4,15	4,26	4,23	4.26	4,30	4,42	4,28
C.O.P. *	W/W	-	5,20	5,19	5,15	-	5,14	5,10	-	-	-	-
EEEC[1]		B	B	B	B	B	B	B	B	B	B	B
Power supply		400V 3~ 50Hz										
Input current cooling	A	66	74	82	102	132	149	165	184	205	233	233
Input current heating	A	73	82	91	118	147	166	184	210	237	259	259
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575	575
Compressor	Type	Twin-rotor screw										
Quantity	n°	1	1	1	1	2	2	2	2	2	2	2
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100
Part load (electronic expansion valve)	%	25-100	25-100	25-100	25-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Evaporator	Type	Piastre										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Evaporator hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Condenser	Type	Plate										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Condenser hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Sound pressure	dB(A)	58	58	59	60	61	61	62	63	63	63	63

* = Energy indices in the conditions provided by the Finance Act

Mod WSB - E		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Cooling capacity	kW	155	185	207	258	311	365	410	465	521	594	665
Total input power	kW	41	46	53	66	82	92	107	120	131	146	159
Water flow rate evaporator (7 °C)	l/h	26660	31820	35600	44380	53490	62780	70520	79924	89610	102170	114380
Pressure drop evaporator	kPa	40	35	30	34	48	53	50	51	54	53	64
E.E.R.	W/W	3.78	4.02	3.91	3.91	3.79	3.97	3.83	3.88	3.98	4.07	4.18
EEEC[1]		A	A	A	A	A	A	A	A	A	A	A
Power supply		400V 3~ 50Hz										
Input current cooling	A	71	81	89	113	143	161	178	203	226	254	272
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430	430
Starting current (LRA)	A	225	264	310	391	287	336	391	462	482	575	575
Compressor	Type	Twin-rotor screw										
Quantity	n°	11	1	1	1	2	2	2	2	2	2	2
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100
Part load (electronic expansion valve)	%	25-100	25-100	25-100	25-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Evaporator	Type	Plate										
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Evaporator hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic										
Sound pressure[2]	dB(A)	58	58	59	60	61	61	62	61	63	63	63

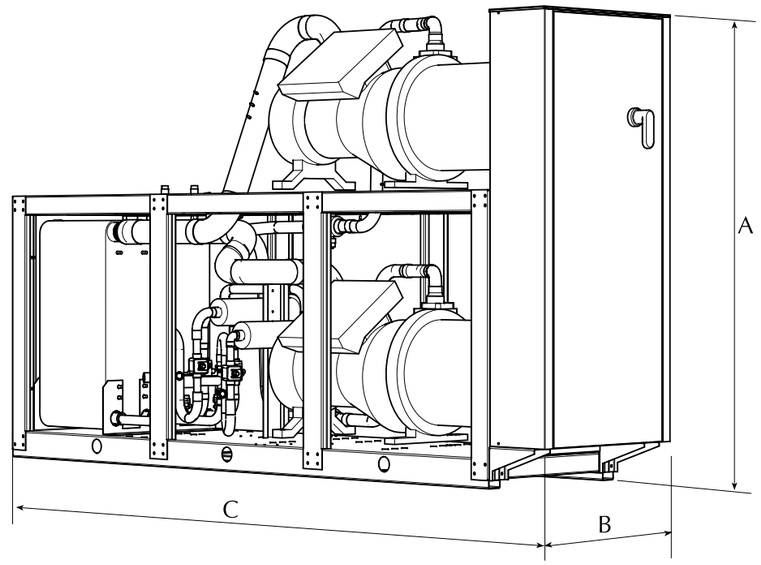
(1) EEEC EUROVENT energy efficiency class
(2) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Cooling:
- leaving water temperature 7 °C
- entering condenser water temperature 30 °C
- Δt = 5K

Heating:
- leaving water temperature 45°C
- entering evaporator water temperature 10°C
- Δt = 5 K

Evaporating unit:
- leaving evaporator water temperature 7 °C
- refrigerant condensing temperature 45°C
- Δt = 5K

Dimensions (mm)



Mod WSB (° - L)		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502	2802
Height (A) °	mm	1775	1775	1775	1775	1975	1975	2005	1985	2065	2065	2065
Height (A) L	mm	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	810	810	810	810	810	810	810
Length (C)	mm	2960	2960	2960	3360	2960	2960	2960	3360	3360	3360	3360
Weight	kg (°)	1251	1301	1357	1788	2028	2097	2169	2598	3000	3095	3095
	kg (L)	1379	1429	1485	1934	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	1479	1529	1585	2045	2256	2325	2397	2855	3257	3352	3352

Mod WSB (° - L)		0701 T	0801 T	0901 T	1101 T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
Height (A) °	mm	2000	2000	2000	2000	2050	2050	2050	2050	2065	2065	2065
Height (A) L	mm	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	1250	1250	1250	1250	1250	1250	1250
Length (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

The technical data in this document are not binding. Aermec S.p.A. shall have the right to introduce at any time whatever modifications deemed necessary for the improvement of the product.

Cod.: SWSBUY.10 / 1007

WSH

Water cooled reverse cycle heat pumps with twin-rotor screw compressor
Cooling capacity from 166 to 672 kW
Heating capacity from 183 to 784 kW

R134a



- **REFRIGERANT REVERSING VALVE**
- **OPTIONAL ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
  – COOLING DOWN TO –6 °C
  – MODULATING CAPACITY CONTROL 25–100%

Characteristics

- Available in 10 sizes (4 sizes single compressor and 6 sizes dual compressor)
- 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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:

  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **SAP:** A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **MULTICHILLER:** 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.	0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
AERWEB300	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AER485P1	-	✔	✔	✔	✔	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
RIF	-	161	161	201	241	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)
PRV3	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	°/L	665	665	665	666	662	662	662	663	664	664
AVX	**D**	665	665	665	666	662	662	662	663	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.

Configuration Fields:

1 2 3 — Code
4 5 6 7 — Size
8 — Expansion device
9 — Model
10 — Heat recovery
11 — Version
12 — Condenser
13 — Power supply

Code:
WSH
Size:
0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502
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:
° - 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

Attention: The standard options are shown by the symbol °

Example of configuration code: WSH1602L8
This is a WSH unit, size 1602 in low noise version, with heat exchangers to PED regulations, and with electrical panel and compressor motors at 400V 3~ 50Hz with circuit breakers. Since each option is uniquely identified it is not necessary to indicate the standard options (represented by °) in the unit configurator.

Technical Data

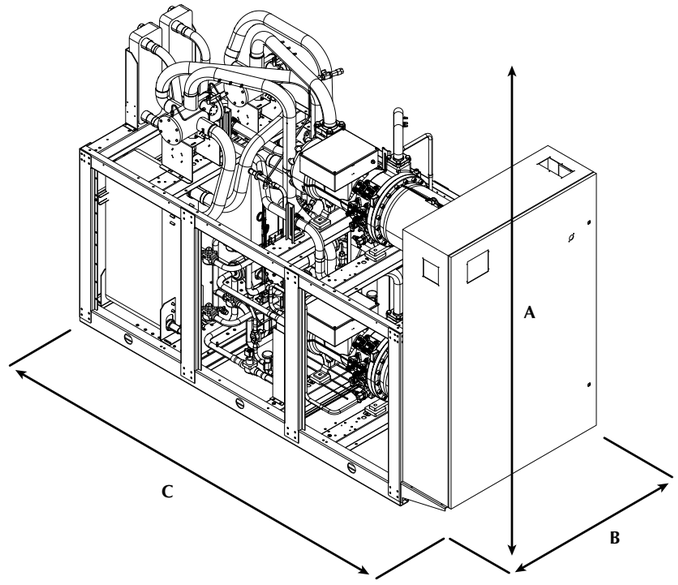
Mod WSH		0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
Cooling capacity	kW	166	196	217	270	360	428	466	526	594	672
Total input power	kW	36	41	47	57	76	88	99	109	120	138
Water flow rate evaporator	l/h	28550	33710	37320	46440	61920	73620	80150	90470	102170	115580
Pressure drop evaporator	kPa	23	24	22	27	43	47	48	59	65	74
Water flow rate condenser	l/h	34740	40760	45410	56240	74990	88750	97180	109220	122810	139320
Pressure drop condenser	kPa	30	31	30	36	57	62	65	79	88	101
Heating capacity	kW	183	210	237	300	420	490	540	620	700	784
Total input power	kW	44	50	57	72	98	116	125	144	162	176
Water flow rate condenser	l/h	31480	36120	40760	51600	72240	84280	92880	106640	120400	134850
Pressure drop condenser	kPa	24	23	23	29	57	62	63	72	79	90
Water flow rate evaporator	l/h	23910	27520	30960	39220	55380	64330	71380	81870	92540	104580
Pressure drop evaporator	kPa	15	15	14	18	27	29	29	32	36	40
E.E.R.	W/W	4,61	4,78	4,62	4,74	4,74	4,86	4,71	4,83	4,95	4,87
E.E.R. *	W/W	5,53	5,74	5,54	5,69	5,69	5,83	5,65	5,80	5,94	5,84
EEEC[1]		C	B	C	B	B	B	B	B	B	B
C.O.P.	W/W	4.16	4.20	4.16	4.17	4.29	4.22	4.32	4.31	4.32	4.45
C.O.P. *	W/W	5,22	5,27	5,22	5,23	5,38	5,30	5,42	5,40	5,42	5,59
EEEC[1]		B	B	B	B	B	B	B	B	B	A
Power supply		400V 3~ 50Hz									
Input current cooling	A	65	73	80.6	100	135	146.5	162	187.5	210	242
Input current heating	A	81	91	101	130.5	178.5	210	221	256.5	291	320
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575
Compressor	Type	bi-vite									
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	20-100	20-100
Part load (electronic expansion valve)	%	25-100	25-100	25-100	25-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Evaporator	Type	Piastre									
Quantity	n°	1	1	1	1	1	1	1	1	1	1
Evaporator hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic									
Condenser	Type	Piaste									
Quantity	n°	1	1	1	1	1	1	1	1	1	1
Condenser hydraulic connection	Ø	3″	3″	3″	3″	3″	3″	3″	3″	3″	3″
Hydraulic connection type	Type	Victaulic									
Sound pressure[2]	db(A)	54	54	54	60	57	57	57	61	63	63

* = Energy indices in the conditions provided by the Finance Act
(1) EEEC EUROVENT energy efficiency class
(2) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Cooling
- leaving water temperature 7°C
- entering condenser water temperature 30 °C
- Δt = 5 K

Heating
- leaving water temperature 45 °C
- entering evaporator water temperature 10 °C
- Δt = 5 K

Dimensions (mm)



Mod WSH			0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
Height (A)	(°)	mm	1980	1980	1980	2060	2000	2000	2000	2000	2060	2060
	L	mm	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)		mm	810	810	810	810	1260	1260	1260	1260	1260	1260
Length (C)		mm	2960	2960	2960	3360	3060	3060	3060	3460	3460	3460
Weight (empty)		kg (°)	1391	1443	1506	1946	2276	2350	2423	2872	3309	3407
		kg (D)	1622	1674	1737	2200	2542	2616	2689	3168	3605	3703

Cod.: SWSHUY.06 / 1007

AERMEC

TW110 Water cooled modular chiller with centrifugal compressor

R134a



ESEER UP TO 7,90

HERCULES



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	285
Total input power	kW	56,4
Input current	A	88
Evaporator water flow rate (7 °C)	l/h	49020
Evaporator pressure drop	kPa	30
Condenser water flow rate (30 °C)	l/h	58720
Condenser pressure drop	kPa	43
♪ Sound pressure	dB(A)	45.5
Evaporator water connections*	Ø	3″
Condenser water connections*	Ø	3″
Maximum current.	A	134
Starting current	A	6

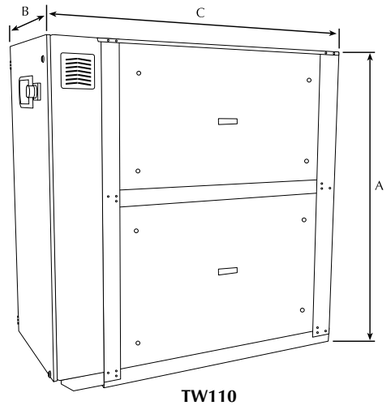
Power supply = 400V 3~ 50Hz.

Cooling
- leaving water temperature 7°C;
- condenser entering water temperature 30 °C;
- Δt = 5 °C;

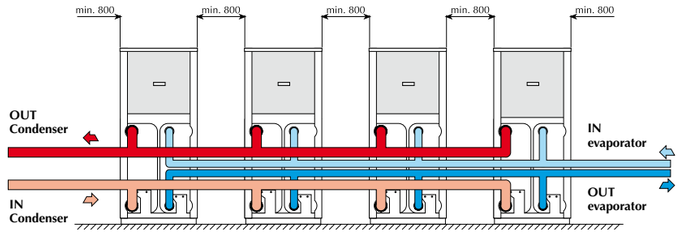
♪ Sound pressure measured in free field conditions at a distance of 10 m with directivity factor = 2. In accordance with ISO 3744.

* V = Victaulic connection

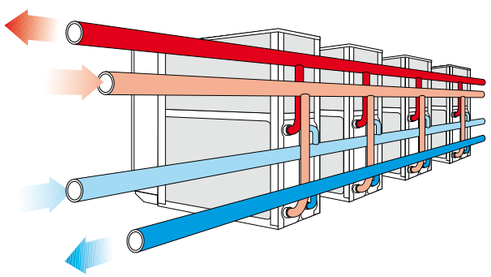
Dimensions (mm)



TW110



Model		TW 110
Height	[mm] (A)	1727
Width	[mm] (B)	805
Depth	[mm] (C)	1653
Weight	kg	960



Cod.: STWUY.03 / 1212

WF

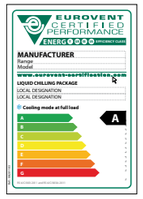
Water cooled chillers with twin-rotor screw compressor
Cooling capacity from 632 to 1554 kW
Heating capacity from 678 to 1667 kW

R134a

EUROVENT CERTIFIED PERFORMANCE 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
- **STANDARD AND HIGH EFFICIENCY VERSIONS**
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 50°C**
- **SHELL AND TUBE HEAT EXCHANGERS**
- **STANDARD ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
  – COOLING DOWN TO –6 °C
  – ADJUSTMENT OF THE COOLING CAPACITY VIA CONTINUOUS MODULATION 12.5–100%

Characteristics

- Available in 8 sizes
- Two independent refrigerant circuits
- High efficiency screw compressors optimised for R134a
- Heat exchangers with oversized surface areas
- **Electronic expansion valve as standard**
- 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**
- **Operational limits:**
- condenser leaving water **temperature up to 50 °C**
- evaporator leaving liquid temperature down to -6 °C
- **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

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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **MULTICHILLER:** 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. **Only available for L Versions. Factory fitted only.**
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

Accessory compatibility								
Mod	**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔
AER485P1	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)	✔(x2)
PRV3	✔	✔	✔	✔	✔	✔	✔	✔
AVX	✔	✔	✔	✔	✔	✔	✔	✔
RIF	RIFWF2512	RIFWF2812	RIFWF3212	RIFWF3612	RIFWF4212	RIFWF4812	RIFWF5612	RIFWF6412
AKW(WF-L)	✔	✔	✔	✔	✔	✔	✔	✔
IS1	°/A	°/A	°	°	°	°		
IS2			A	A	A	A	°	°
IS3							A	A

AVX compatibility								
Standard/Low noise								
Mod WF	**2512°**	**2812°**	**3212°**	**3612°**	**4212°**	**4812°**	**5612°**	**6412°**
AVX	673	673	673	674	674	674	675	675
Mod WF	**2512°L**	**2812°L**	**3212°L**	**3612°L**	**4212°L**	**4812°L**	**5612°L**	**6412°L**
AVX	673	673	674	674	674	674	675	675
High efficiency/High efficiency low noise								
Mod WF	**2512A**	**2812A**	**3212A**	**3612A**	**4212A**	**4812A**	**5612A**	**6412A**
AVX	673	673	674	675	675	675	676	676
Mod WF	**2512AL**	**2812AL**	**3212AL**	**3612AL**	**4212AL**	**4812AL**	**5612AL**	**6412AL**
AVX	674	674	675	675	675	675	676	676

RIF - AKW - IS are accessories factory installed only° = versione standard
A = High efficiency version
°L/AL = Low noise version / High efficiency low noise version
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.

Configuration Fields:

1 2 — Code
3 4 5 6 — Size
7 — Model
8 — Version
9 — Version
10 — Heat recovery
11 — Evaporator
12 — Power supply

Code:
WF
Size:
2512, 2812, 3212, 3612, 4212, 4812, 5612, 6412
Model:
° - Optimised for low condensing temperature
Version:
° - Standard
A - High efficiency
Version:
° - Standard
L - Low noise
Heat recovery:
° - Without heat recovery
D - With partial heat recovery
T - With total heat recovery (not available for unit E)

Evaporator:
° - Standard
E - Evaporating unit
Power supply:
° - 400V 3~50Hz with fuses
8 - 400V 3~50Hz with circuit breakers
5 - 500V 3~50Hz with fuses (only for sizes 2512 and 2812)
9 - 500V 3~50Hz with circuit breakers (only for sizes 2512 and 2812)

Attention: The standard options are shown by the symbol °

Example of configuration code: **WF2512A8**
This is a WF unit, size 2512 in high efficiency version, and with electrical panel and compressor motors at 400V 3~ 50Hz with circuit breakers. Since each option is uniquely identified it is not necessary to indicate the standard options (represented by °) in the unit configurator.

Technical data

Mod WF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	*6412°
Cooling capacity	kW	632	723	875	987	1114	1281	1412	1553
Total input power	kW	122	139	169	190	214	246	272	300
Water flow rate evaporator	l/h	108704	124356	150500	169764	191608	220332	242864	267116
Pressure drop evaporator	kPa	41	58	56	47	43	62	65	75
Water flow rate condenser	l/h	129688	148264	179568	202444	228416	262644	289648	318716
Pressure drop condenser	kPa	16	16	18	16	18	24	17	19
Input current	A	212	243	282	317	349	416	457	506
EER	W/W	5,18	5,2	5,18	5,19	5,21	5,21	5,19	5,18
EER class (Eurovent)		A	A	A	A	A	A	A	A
ESEER		6,16	6,19	6,16	6,18	6,19	6,2	6,18	6,16
Heating capacity	kW	678	775	939	1059	1194	1372	1514	1667
Total input power	kW	156	178	216	243	274	314	348	384
Water flow rate condenser	l/h	116616	133307	161508	182146	205368	235984	260408	286724
Pressure drop condenser	kPa	13	13	14	13	14	19	14	15
Water flow rate evaporator	l/h	89784	102691	124356	140350	158240	181976	200552	220676
Pressure drop evaporator	kPa	28	39	38	32	29	43	44	51
Input current	A	271	312	361	406	447	533	585	648
COP		4,35	4,35	4,35	4,36	4,36	4,37	4,35	4,34
COP class (Eurovent)		B	B	B	B	B	B	B	B
Power supply		400V-3-50Hz							
Maximum current (FLA)	A	294	336	396	446	494	572	636	702
Startiing current (LRA)	A	447	528	596	659	712	872	968	1156
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	6"	6"	6"	8"	8"	8"	8"	8"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connection (victaulic)	Ø	5"	5"	5"	5"	5"	5"	6"	6"
Sound power	dB(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	dB(A)	61,6	62	61,5	61,7	62,6	63,5	65,3	65,9

Mod WF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	*6412A
Cooling capacity	kW	641	728	891	1007	1137	1282	1417	1554
Total input power	kW	115	131	160	180	203	229	258	285
Water flow rate evaporator	l/h	110252	125216	153252	173204	195564	220504	243724	267288
Pressure drop evaporator	kPa	44	59	62	44	62	42	41	51
Water flow rate condenser	l/h	130032	147748	180772	204164	230480	259892	288100	316308
Pressure drop condenser	kPa	63	64	72	69	69	74	74	77
Input current	A	202	232	268	303	332	392	437	483
EER	W/W	5,57	5,56	5,57	5,59	5,6	5,6	5,49	5,45
EER class (Eurovent)		A	A	A	A	A	A	A	A
ESEER		6,63	6,61	6,63	6,66	6,67	6,66	6,54	6,49
Heating capacity	kW	676	769	940	1062	1199	1353	1501	1648
Total input power	kW	147	167	204	231	260	293	330	364
Water flow rate condenser	l/h	116272	132268	161680	182664	206228	232716	258172	283456
Pressure drop condenser	kPa	51	51	58	56	55	59	59	62
Water flow rate evaporator	l/h	90986	103544	126592	142932	161508	182320	201412	220848
Pressure drop evaporator	kPa	30	40	42	30	42	29	28	35
Input current	A	258	297	343	388	425	501	559	619
COP		4,6	4,6	4,61	4,6	4,61	4,62	4,55	4,53
COP class (Eurovent)		A	A	A	A	A	A	A	A
Power supply		400V-3-50Hz							
Maximum current (FLA)	A	294	336	396	446	494	572	636	702
Startiing current (LRA)	A	447	528	596	659	712	872	968	1156
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connection (victaulic)	Ø	4"	4"	5"	5"	5"	5"	6"	6"
Sound power	dB(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	dB(A)	61,6	62	61,5	61,7	62,6	63,5	65,3	65,9

* Models are not certified to Eurovent

(1) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Performance values refers to the following conditions:

Cooling:
- Evaporator water (in/out) 12°C/7°C
- Condenser water (in/out) 30°C/35°C

Heating:
- Condenser water (in/out) 40°C/45°C
- Evaporator water (in/out) 10°C/5°C

- With condenser isolating valves (mandatory accessory)

Technical Data

Mod WF		2512°E	2812°E	3212° E	3612°E	4212° E	4812°E	5612°E	6412°E
Cooling capacity	kW	547	624	748	842	954	1077	1208	1328
Total input power	kW	143	162	195	221	247	279	313	345
Water flow rate evaporator	l/h	94084	107328	128656	144824	164088	185244	207776	228416
Pressure drop evaporator	kPa	31	43	41	34	31	44	47	55
Input current	A	242	277	321	363	398	465	516	571
EER		3,83	3,85	3,84	3,81	3,86	3,86	3,86	3,85
EER class (Eurovent)		A	A	A	A	A	A	A	A
Power supply		400V-3-50Hz							
Maximum current (FLA)	A	294	336	396	446	494	572	636	702
Starting current (LRA)	A	447	528	596	659	712	872	968	1156
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic)	Ø	6"	6"	6"	8"	8"	8"	8"	8"
Sound power	dB(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	dB(A)	61,6	62	61,5	61,7	62,6	63,5	65,3	65,9

Mod WF		2512AE	2812AE	3212AE	3612AE	4212AE	4812AE	5612AE	6412AE
Cooling capacity	kW	585	665	800	899	1016	1148	1246	1382
Total input power	kW	143	162	195	221	248	280	313	346
Water flow rate evaporator	l/h	100620	114380	137600	154628	174752	197456	214312	237704
Pressure drop evaporator	kPa	36	49	50	35	49	34	31	40
Input current	A	242	277	321	363	400	465	518	573
EER		4,09	4,1	4,1	4,07	4,1	4,1	3,98	3,99
EER class (Eurovent)		A	A	A	A	A	A	A	A
Power supply		400V-3-50Hz							
Maximum current (FLA)	A	294	336	396	446	494	572	636	702
Starting current (LRA)	A	447	528	596	659	712	872	968	1156
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connections (victaulic)	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Sound power	dB(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	dB(A)	61,6	62	61,5	61,7	62,6	63,5	65,3	65,9

(1) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

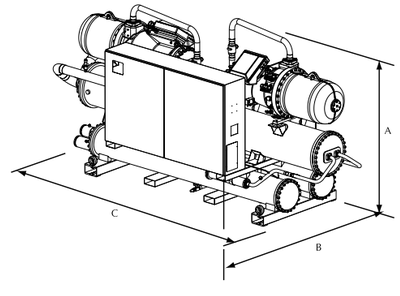
Performance values refers to the following conditions:

Cooling:
- Evaporator water (in/out) 12°C/7°C
- Condensing temperature 45°C

Dimensions (mm)

Mod WF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
Height (A)	mm	2100	2100	2050	2120	2140	2140	2210	2210
Width (B)	mm	1470	1470	1470	1520	1550	1550	1600	1600
Length (C)	mm	3690	3690	4030	4030	4370	4370	4610	4760
Weight	Kg	3570	3650	4470	4750	5050	5180	6030	6260

Mod WF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Height(A)	mm	2180	2180	2190	2340	2340	2340	2380	2380
Width (B)	mm	1470	1470	1537	1695	1695	1695	1700	1700
Length (C)	mm	4330	4330	4330	4370	4550	4550	4800	4800
Weight	Kg	4080	4140	5470	5950	6240	6440	7230	7360



Attention: For the dimensions of versions D - T - L - E contact the head office

Code: SWFUY.04 / 1008

HWF

Water cooled chillers with twin-rotor screw compressor
Cooling capacity from 630 to 1529 kW
Heating capacity from 670 to 1609 kW

R134a

Aermec
participate in the EUROVENT
program: LCP / W / P / R up to 1500 kW
the products are present on the site
www .eurovent-certification. com
* Not certified model







- **OPTIMISED FOR HIGH CONDENSER TEMPERATURES**
  for example: units operating in heating mode
- **STANDARD AND HIGH EFFICIENCY VERSIONS**
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 60°C**
- **SHELL AND TUBE HEAT EXCHANGERS**
- **STANDARD ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**

– COOLING DOWN TO –6 °C
– CAPACITY MODULATION 12.5–100%

Characteristics

- Available in 8 sizes
- Two independent refrigerant circuits
- High efficiency screw compressors optimised for R134a
- Heat exchangers with oversized surface areas
- Electronic expansion valve as standard
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 60 °C (with hydraulic system reversing) and with ground water or geothermal loops. For heating mode operation the IS accessory, condenser isolating valves, is required
- Operational limits:
- condenser leaving water temperature up to 60 °C
- evaporator leaving liquid temperature down to -6 °C
- 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

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.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
  AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
  AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem**;**
- **MULTICHILLER:** 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. Only available for L Versions. Factory fitted only.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode.
  Factory fitted only.

Accessory compatibility								
Mod	**2512**	**2812**	**3212**	**3612**	**4212**	**4812**	**5612**	**6412**
AERWEB300	✔	✔	✔	✔	✔	✔	✔	✔
MULTICHILLER	✔	✔	✔	✔	✔	✔	✔	✔
AER485P1	✔ (x2)	✔ (x2)	✔ (x2)	✔ (x2)	✔ (x2)	✔ (x2)	✔ (x2)	✔ (x2)
PRV3	✔	✔	✔	✔	✔	✔	✔	✔
AVX	✔	✔	✔	✔	✔	✔	✔	✔
RIF	**RIFHWF 2512**	**RIFHWF 2812**	**RIFHWF 3212**	**RIFHWF 3612**	**RIFHWF 4212**	**RIFHWF 4812**	**RIFHWF 5602**	**RIFHWF 6412**
AKW(WF-L)	✔	✔	✔	✔	✔	✔	✔	✔
IS1	**°/A**	**°/A**	**°**	**°**	**°**	**°**		
IS2			**A**	**A**	**A**	**A**	**°**	**°**
IS3							**A**	**A**

AVX compatibility								
Standard/Low noise								
Mod HWF	**2512°**	**2812°**	**3212°**	**3612°**	**4212°**	**4812°**	**5612°**	**6412°**
AVX	673	673	673	674	674	674	675	675
Mod HWF	**2512°L**	**2812°L**	**3212°L**	**3612°L**	**4212°L**	**4812°L**	**5612°L**	**6412°L**
AVX	673	673	674	674	674	674	675	675
High efficiency/High efficiency low noise								
Mod HWF	**2512A**	**2812A**	**3212A**	**3612A**	**4212A**	**4812A**	**5612A**	**6412A**
AVX	673	673	674	675	675	675	676	676
Mod HWF	**2512AL**	**2812AL**	**3212AL**	**3612AL**	**4212AL**	**4812AL**	**5612AL**	**6412AL**
AVX	674	674	675	675	675	675	676	676

(x2) Indicate the quantity to be ordered
RIF - AKW - IS are accessories factory installed only
° = Standard version
A = High efficiency version
°L/AL = Low noise version / High efficiency low noise version
Attention: For D - T - E versions contact the facory

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.

Configuration Fields:

1 2 3 — Code
4 5 6 7 — Size
8 — Model
9 — Version
10 — Version
11 — Heat recovery
12 — Evaporator
13 — Power supply

Code:
HWF
Size:
2512, 2812, 3212, 3612, 4212, 4812, 5612, 6412
Model:
° - Optimised for high condensing temperature
Version:
° - Standard
A - High efficiency
Version:
° - Standard
L - Low noise
Heat recovery units:
° - Without heat recovery
D - With partial heat recovery
T - With total heat recovery (not available for unit E)

Evaporator:
° - Standard
E - Evaporating unit
Power supply:
° - 400V 3~50Hz with fuses
8 - 400V 3~50Hz with circuit breakers
5 - 500V 3~50Hz with fuses (only for sizes 2512 and 2812)
9 - 500V 3~50Hz with circuit switches (only for sizes 2512 and 2812)

Attention: The standard options are shown by the symbol °

Example of configuration code: HWF2512A8
This is a HWF unit, size 2512 in high efficiency version, and with electrical panel and compressor motors at 400V 3~ 50Hz with circuit breakers. Since each option is uniquely identified it is not necessary to indicate the standard options (represented by °) in the unit configurator.

Technical Data

Mod HWF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	*6412°
Cooling capacity	kW	630	716	846	949	1095	1261	1421	1519
Total input power	kW	127	144	169	191	220	252	286	305
Water flow rate evaporator	l/h	108360	123152	145512	163228	188340	216892	244412	261268
Pressure drop evaporator	kPa	41	56	53	44	41	60	65	72
Water flow rate condenser	l/h	130204	147924	174580	196080	226180	260236	293604	313725
Pressure drop condenser	kPa	16	16	17	15	17	23	18	18
Input current	A	226	255	286	314	378	426	488	530
E.E.R.		4,96	4,97	5,01	4,97	4,98	5,00	4,97	4,98
E.E.R. class (Eurovent)		B	B	B	B	B	B	B	B
E.S.E.E.R.		5,85	5,87	5,91	5,86	5,87	5,90	5,86	5,88
Heating capacity	kW	670	762	898	1009	1163	1338	1512	1615
Total input power	kW	149	170	199	225	259	297	338	360
Water flow rate condenser	l/h	115240	131064	154456	173548	200036	230128	260064	277780
Pressure drop condenser	kPa	13	12	13	12	14	18	14	14
Water flow rate evaporator	l/h	89612	101824	120228	134848	155482	179044	201928	215860
Pressure drop evaporator	kPa	28	39	36	30	28	41	45	49
Input current	A	267	300	337	371	446	503	575	625
C.O.P.		4,50	4,48	4,51	4,48	4,49	4,50	4,47	4,49
C.O.P. class (Eurovent)		A	A	A	A	A	A	A	A
Power supply					400V-3-50Hz				
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Starting current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	6"	6"	6"	8"	8"	8"	8"	8"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connection (victaulic)	Ø	5"	5"	5"	5"	5"	5"	6"	6"
Sound power	db(A)	93,6	94,0	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

Mod HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	*6412A
Cooling capacity	kW	645	733	858	969	1112	1253	1439	1529
Total input power	kW	123	140	164	185	212	239	275	293
Water flow rate evaporator	l/h	110940	126076	147584	166668	191264	215516	247500	262992
Pressure drop evaporator	kPa	44	60	57	41	59	40	42	50
Water flow rate condenser	l/h	132096	150156	175792	198488	227728	256624	294800	313388
Pressure drop condenser	kPa	65	66	68	66	67	72	77	76
Input current	A	221	249	278	306	367	408	471	514
E.E.R.		5,24	5,24	5,23	5,24	5,25	5,24	5,23	5,22
E.E.R. class (Eurovent)		A	A	A	A	A	A	A	A
E.S.E.E.R.		6,19	6,18	6,17	6,18	6,19	6,19	6,17	6,16
Heating capacity	kW	678	771	902	1019	1168	1317	1513	1609
Total input power	kW	145	165	193	218	250	282	325	346
Water flow rate condenser	l/h	116616	132612	155144	175268	200892	226528	260236	276748
Pressure drop condenser	kPa	51	52	53	51	52	56	60	59
Water flow rate evaporator	l/h	91676	104232	121948	137772	157892	178024	204336	217236
Pressure drop evaporator	kPa	30	41	39	28	40	28	29	34
Input current	A	261	293	328	361	433	481	556	606
C.O.P.		4,68	4,67	4,67	4,67	4,67	4,67	4,66	4,65
C.O.P. class (Eurovent)		A	A	A	A	A	A	A	A
Power supply					400V-3-50Hz				
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Starting current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100	12.5-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Shell and tube condenser	n°	2	2	2	2	2	2	2	2
Condenser hydraulic connection (victaulic)	Ø	4"	4"	5"	5"	5"	5"	6"	6"
Sound power	db(A)	93,6	94,0	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

(1) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Performance values refers to the following conditions:

Cooling:
- Evaporator water (in/out) 12°C/7°C
- Condenser water (in/out) 30°C/35°C

Heating:
- Condenser water (in/out) 40°C/45°C
- Evaporator water (in/out) 10°C/5°C

- With condenser isolating valves (mandatory accessory)

Technical Data

Mod HWF		2512°E	2812°E	3212° E	3612°E	4212° E	4812°E	5612°E	6412°E
Cooling capacity	kW	540	615	726	816	947	1070	1225	1311
Total input power	kW	141	161	189	212	246	278	318	340
Water flow rate evaporator	l/h	92883	105773	124872	140352	162884	184040	210700	225492
Pressure drop evaporator	kPa	30	42	39	32	31	44	49	54
Input current	A	247	278	315	345	416	465	532	579
EER	W/W	3,83	3,82	3,84	3,85	3,85	3,85	3,85	3,86
EER class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply					400V-3-50Hz				
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Starting current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	6"	6"	6"	8"	8"	8"	8"	8"
Sound power	db(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

Mod HWF		2512AE	2812AE	3212AE	3612AE	4212AE	4812AE	5612AE	6412AE
Cooling capacity	kW	577	657	779	873	1012	1143	1263	1362
Total input power	kW	143	162	191	214	248	280	320	342
Water flow rate evaporator	l/h	99244	113004	133988	150156	174064	196596	217236	234264
Pressure drop evaporator	kPa	35	48	47	33	49	34	32	39
Input current	A	249	281	318	348	418	467	534	581
EER	W/W	4,03	4,06	4,08	4,08	4,08	4,08	3,95	3,98
EER class (Eurovent)		A	A	A	A	A	A	A	A
Electric power supply					400V-3-50Hz				
Maximum current (FLA)	A	370	418	468	516	612	690	776	846
Starting current (LRA)	A	545	613	670	723	892	995	1193	1340
Twin-rotor screw compressor	n°	2	2	2	2	2	2	2	2
Part load (electronic expansion valve)	%	35-100	35-100	35-100	35-100	35-100	35-100	35-100	35-100
Shell and tube evaporator	n°	1	1	1	1	1	1	1	1
Evaporator hydraulic connection (victaulic)	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Sound power	db(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Sound pressure (1)	db(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9

(1) Sound pressure measured in free field with directivity factor 2 at 10 m distance, in accordance with ISO 3744.

Performance values refers to the following conditions:

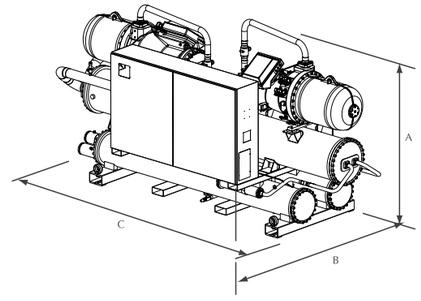
Cooling:
- Evaporator water (in/out) 12°C/7°C
- Condensing temperature 45°C

Dimensions (mm)

Mod. HWF		2512	2812	3212	3612	4212	4812	5612	6412
Height (A)	mm	2100	2100	2050	2120	2140	2140	2210	2210
Width (B)	mm	1470	1470	1470	1520	1550	1550	1600	1600
Length (C)	mm	3690	3690	4030	4030	4370	4370	4610	4760
Weight	Kg	3570	3650	4470	4750	5100	5200	6110	6310

Mod. HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Height (A)	mm	2180	2180	2190	2340	2340	2340	2380	2380
Width (B)	mm	1470	1470	1537	1695	1695	1695	1700	1700
Length (C)	mm	4330	4330	4330	4370	4550	4550	4800	4800
Weight	Kg	4080	4140	5470	5950	6290	6460	7310	7410

Attention: For the dimensions of versions D - T - L - E contact the head office



The technical data in this document are not binding. Aermec S.p.A. shall have the right to introduce at any time whatever modifications deemed necessary for the improvement of the product.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) -

Code: SHWFUY.00 / 1008

Technical data

RTE F		standard					ver. (A)			ver. (L)		
		240	**260**	**300**	**350**	**400**	**240**	**260**	**300**	**240**	**260**	**300**
COOLING CAPACITY												
Cooling capacity	kW	77	89	103	129	143	78	90	106	69	84,5	102,6
Sensitive nominal cooling capacity	kW	50,1	61,2	67	77,7	92,6	50,7	62,1	68,7	44,7	58,3	66,7
Cooling input power	kW	20,7	25,3	31,8	39,7	44,5	20,3	24,8	30,7	24,8	27,3	32,1
E.E.R.		3,72	3,5	3,23	3,26	3,2	3,84	3,62	3,44	2,77	3,09	3,2
MOTOR CONDENSING SECTION												
Compressors												
Type		Scroll										
Number/circuits	n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Partialisation steps	%	0-50-100										
External fans		Axial										
Number x input power	n° x kW	4x0,53	4x0,53	4x0,53	4x0,56	4x0,56	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53
Air flow rate	m3/h	32000	29000	28000	40000	36000	14500	14000	16500	9500	9000	11000
HANDLING SECTION												
Evaporator												
Number of rows	n°	4	4	4	4	4	4	4	4	4	4	4
internal fan		Forward blade centrifugal type										
Nominal air flow rate	m3/h	12000	17000	20000	22000	23000	12000	17000	20000	12000	17000	20000
Number	n°	1	1	1	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200	200	200	200
Air filters												
Thickness	mm	50	50	50	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	72	73	74	77	78	72	73	74	69	70	71
ELECTRIC POWER SUPPLY												
Type	V/ph/Hz	400V/3N/50Hz										

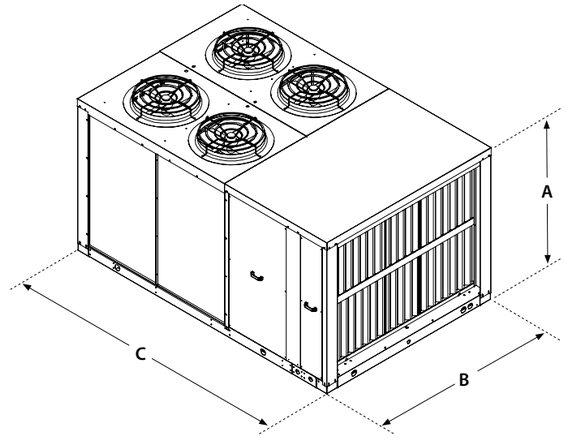
RTE H		standard					ver. (A)			ver. (L)		
COOLING CAPACITY		**240**	**260**	**300**	**350**	**400**	**240**	**260**	**300**	**240**	**260**	**300**
Cooling capacity	kW	76	88	105	128	141	77	89	105	68	83,6	101,6
Sensitive nominal cooling capacity	kW	50	61	66	77	92	50	61	68	44,2	55,6	65,9
Cooling input power	kW	20,4	25	30,8	38,5	43,1	20	24,4	30,4	24,4	26,8	31,6
E.E.R.		3,74	3,51	3,4	3,33	3,27	3,86	3,64	3,44	2,78	3,12	3,21
HEATING CAPACITY												
HEATING capacity	kW	73,4	86,3	103	127,6	142,2	77,1	87,4	101,5	74,5	83,6	98,5
Heating input power	kW	18,9	21,8	26,1	34,4	38,6	19,2	22,1	26,9	19	21,8	26,5
C.O.P.		3,88	3,96	3,94	3,71	3,68	4,01	3,95	3,77	3,92	3,83	3,71
MOTOR CONDENSING SECTION												
Compressors												
TYPE		Scroll										
Number/circuits	n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Partialisation steps	%	0-50-100										
External fans		Axial										
Number x input power	n° x kW	4x0,53	4x0,53	4x0,53	4x0,56	4x0,56	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53
Air flow rate	m3/h	36000	33000	32000	40000	34200	14500	14000	16500	9500	9000	11000
HANDLING SECTION												
Evaporator												
Number of rows	n°	4	4	4	4	4	4	4	4	4	4	4
internal fan		Forward blade centrifugal type										
Nominal air flow rate	m3/h	12000	17000	20000	22000	23000	12000	17000	20000	12000	17000	20000
Number	n°	1	1	1	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200	200	200	200
Air filters												
Thickness	mm	50	50	50	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	72	73	74	77	78	72	73	74	69	70	71
ELECTRIC POWER SUPPLY												
Type	V/ph/Hz	400V/3N/50Hz										

* Environment air 20°C d.b., water 80/70°C

The performance refers to the following conditions:
Cooling:
- Cooling capacity Tin 27°C RH 50% (Twb 19°C), Text 35°C RH 50%;

Heating:
- Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%.

Dimensional data (mm)



RTE			240	260	300	350	400
Height	A	mm	1.830	1.830	1.830	1.830	1.830
Width	B	mm	2.166	2.166	2.166	2.166	2.166
Depth	C	mm	3.290	3.290	3.290	3.286	3.286
Weight **RTE**		kg	1300	1390	1480	1.565	1.645
Weight **RTE H**		kg	1320	1410	1500	1.645	1.725

Dimensions and weights of the basic set-up unit.

The technical data given in this documentation are not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

Code : SRTE240_400UY.00 /1007

Technical data

RTE F		standard					ver. (A)		
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**	**480**	**530**	**600**
Cooling capacity	kW	150	179	198	232,1	254,8	156	182,7	208,5
Sensitive nominal cooling capacity	kW	121,1	146	158	183,4	199,9	123,6	148,9	160,8
Cooling input power	kW	56,1	63	67	79,8	92	53,7	59,2	63,3
E.E.R.		2,68	2,82	2,94	2,91	2,77	2,91	3,08	3,29
MOTOR CONDENSING SECTION									
Compressors									
Type		Scroll tandem							
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
External fans		Axial							
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2	4/2,5	4/2,5	4/2,5
Air flow rate	m3/h	74600	72400	69200	84400	80600	72400	69200	67400
HANDLING SECTION									
Evaporator									
Number of rows	n°	3	4	4	4	4	3	4	4
internal fan		forward blade centrifugal type							
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500	26500	29500	31500
Number	n°	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200
Air filters									
Thickness	mm	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	79	80	81	84	85	79	80	81
ELECTRIC POWER SUPPLY									
Type	V/ph/Hz	400V/3/50Hz							

RTE H		standard					ver. (A)		
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**	**480**	**530**	**600**
Cooling capacity	kW	147	176	194,6	230,4	254	152,9	181,2	205,2
Sensitive nominal cooling capacity	kW	120	145	156,9	182,7	200	122,3	146,5	156,8
Cooling input power	kW	58	62	69,1	81	93,1	54,3	60,6	63,3
E.E.R.		3	3	2,82	2,84	2,73	2,82	2,99	3,24
HEATING CAPACITY									
HEATING capacity	kW	151,3	178,5	202,9	231,5	266,1	159,1	183,8	208,3
Heating input power	kW	48,1	52,5	60,4	75,6	87,1	48,7	52,8	61,5
C.O.P.		3,15	3,4	3,36	3,06	3,06	3,27	3,48	3,39
MOTOR CONDENSING SECTION									
Compressors									
Type		Scroll tandem							
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
External fans		Axial							
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2	4/2,5	4/2,5	4/2,5
Air flow rate	m3/h	74600	72400	69200	84400	80600	72400	69200	67400
HANDLING SECTION									
Evaporator									
Number of rows	n°	3	4	4	4	4	3	4	4
internal fan		forward blade centrifugal type							
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500	26500	29500	31500
Number	n°	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200
Air filters									
Thickness	mm	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	79	80	81	84	85	79	80	81
ELECTRIC POWER SUPPLY									
Type	V/ph/Hz	400V/3/50Hz							

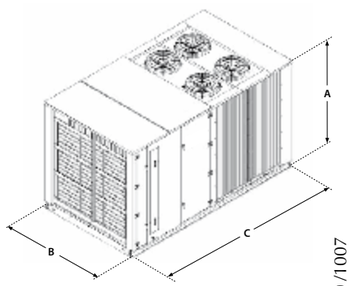
The performance refers to the following conditions:
Cooling:
- Cooling capacity Tin 27°C RH 50% (Twb 19°C), Text 35°C RH 50%;

Heating:
- Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%.

Technical data

RTE F		ver. (L)				
		480	**530**	**600**	**700**	**800**
COOLING CAPACITY						
Cooling capacity	kW	148	178,6	201,1	231	251
Sensitive nominal cooling capacity	kW	124	146,2	159,7	182,5	199,9
Cooling input power	kW	57	61,1	65,5	80,6	95,2
E.E.R.		2,59	2,92	3,07	2,86	2,63
MOTOR CONDENSING SECTION						
Compressors						
Type		Scroll tandem				
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2
Partialisation steps	n°	4	4	4	4	4
External fans		Axial				
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2
Air flow rate	m3/h	57800	55400	51800	63200	59800
HANDLING SECTION						
Evaporator						
Number of rows	n°	3	4	4	4	4
internal fan		forward blade centrifugal type				
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500
Number	n°	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200
Air filters						
Thickness	mm	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4
Sound pressure	dB(A)	76	77	78	81	82
ELECTRIC POWER SUPPLY						
Type	V/ph/Hz	400V/3/50Hz				

RTE H		ver. (L)				
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**
Cooling capacity	kW	145,2	176,3	198	229	250,4
Sensitive nominal cooling capacity	kW	118,9	145,1	159	182	198
Cooling input power	kW	59,1	62	66,7	82,2	96,2
E.E.R.		2,45	2,84	2,97	2,78	2,6
HEATING CAPACITY						
Heating capacity	kW	150,1	179,6	195	227,7	250,1
Heating input power	kW	47,9	52,6	59,9	75	85,1
C.O.P.		3,13	3,41	3,25	3,03	2,94
MOTOR CONDENSING SECTION						
Compressors						
Type		Scroll tandem				
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2
Partialisation steps	n°	4	4	4	4	4
External fans		Axial				
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2
Air flow rate	m3/h	57800	55400	51800	63200	59800
HANDLING SECTION						
Evaporator						
Number of rows	n°	4	4	4	4	4
internal fan		forward blade centrifugal type				
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500
Number	n°	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200
Air filters						
Thickness	mm	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4
Sound pressure	dB(A)	76	77	78	81	82
ELECTRIC POWER SUPPLY						
Type	V/ph/Hz	400V/3/50Hz				



Dimensional data (mm)

RTE			480	530	600	700	800
Height	A	mm	2450	2450	2.450	2.450	2450
Width	B	mm	2350	2350	2.350	2.350	2350
Depth	C	mm	4200	4200	4.200	5.500	5500
Depth **RTE**		kg	2100	2200	2300	2700	2800
Depth **RTE H**		kg	2200	2300	2400	2800	2900

Dimensions and weights of the basic set-up unit.

Code : SRTE480_800UY.00 /1007

RTE

ROOF-TOP cooling only and heat pump unit
Cooling capacities from 77 up to 142 kW standard version
Heating capacities from 73 up to 142 kW standard version

R410A



Features

The rooftop units in the RTE range represent the ideal solution for air conditioning environments with average cubage for tertiary, commercial and industrial destination.
The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.
The use of ecological R410A fluid refrigerant allows to increase the unit efficiency.
The availability of many accessories, e.g. the cross flow recovery systems or the hot air generator with condensation, also confer a noteworthy versatility, making the RTE range perfectly suitable for the various system requirements.

Structure:
Self-supporting with external aluminium alloy and internal galvanised steel sandwich-type panelling with thickness of 50 mm and injected polyurethane insulation (density 42 kg/m3) for the air handling section.

Air handling section fan:
Double intake centrifugal type with blades facing forwards for greater silence, coupled using belts and pulleys with variable pitch.
The direction of delivery air flow can be: UPWARDS, SIDEWAYS AND DOWNWARDS.

Condensation section fans:
Statically and dynamically balanced helical type, protected electrically by magnet circuit breakers and mechanically by grids.

Cooling circuit:
Fitted with scroll compressors that guarantee low noise and high efficiency, complete with resistances on the guard, internal and external coil with copper pipes and high efficiency aluminium louvers.

Air filtering:
Pleated synthetic filters with G4 efficiency or F7 rigid pocket filters (optional).
Microprocessor adjustment
complete with electric control board, probes and actuators for all components.

Versions:
RTPA F cooling only version.
RTPA H heat pump.
High temperature functioning (A)
Silenced functioning (L)
SET-UPS:

SMP mixing chamber 2 dampers with rear intake.
SM2 mixing chamber 2 dampers with lateral/lower intake.
SM3 mixing chamber 3 dampers with free-cooling.
FT7 F7 (EN 779) efficiency rigid pocket filters.
REC cross flow heat recovery units with intake fan.
Gxxx condensation hot air generator (72 kW, 92 kW or 150 kW).

Accessories

• **DCPR** - Pressure control device Extends the functioning range of the rooftop in the summer cycle (minimum temperature of the external air up to 10 °C) and in the winter cycle in heat pump mode (maximum temperature of the external air up to 25 °C). Moreover, it makes functioning silent with partial loads. A regulation circuit board varies the number of the motor condensing fan revs on the basis of the condensation pressure, read by the relevant transducers, thus guaranteeing correct power supply of the thermostatic valve.
• **TP** - Pressure transducers (as per standard on heat pumps) They show the high and low pressures on the display, they manage activity of the compressors and the valves during defrosting and inhibit their functioning when the pressures exceed the limits set.
• **RUB** - Cocks on the liquid and pressing line (cooling only version) Hermetic cocks with manual closure positioned on the compressor delivery and on the circuit liquid side
• **GP** - Protection grids Protect the external coils from blows and hail.
• **T1** - Right lateral air intake (only on SM2).
• **T2** - Left lateral air intake (only on SM2).
• **T3** - Rear air intake (only on SM2).
• **T4** - Lower air intake (only on SM2).
• **T5** - Right lateral air intake (only on SM2).
• **T6** - Left lateral air intake (only on SM2).
• **AI** - Lower intake (only on SM3).
• **PA4** - Rear air intake Return fan static pressure up to 300 Pa at nominal flow rate.
• **MA** - Upper air delivery Upper air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
• **MA** - Left air delivery Left air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
• **MD** - Right air delivery Right air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
• **PM4** - Delivery fan static pressure up to 400 Pa Delivery fan static pressure up to 400 Pa at nominal flow rate.
• **BTR** - Water heating coil 2 row hot water coil with 3-way modulating valve. They can be managed in post-heating mode only with DP accessories. They can be coupled with the G72 or G92 generator.
• **BRE** - Electric heating coil Electric heating coil with two stages fitted with twin safety thermostat, one with automatic rearm and the other with manual rearm. The powers proposed are 12, 18, 24 and 36 kW (or indicate the power requested in the order phase).
They can be managed in post-heating mode only with DP accessories. The BRE cannot be coupled with the G72 or G92 generator.
• **PUC** - Humidification control set-up. ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with humidity probe positioned in the environment air return. A humidity probe is also supplied to be positioned downstream from the humidification section.
• **DP** - Kit for management of dehumidification and post-heating The control will force compressor functioning in order to dehumidify the air to the set humidity set. If the water or electric coil is present, post-heating can also be managed. It can be coupled with the PUC accessory (humidification contact).
• **SCS** - Damper servocontrols for 2-damper set-up Modulating servocontrols mounted directly on the return and external dampers for the management of fresh air.
• **SCSM** - Damper servocontrols with spring return for 2-damper set-up Servocontrols with spring return mounted directly on the return and external dampers for the management of fresh air. In the event of blackout they close the external air damper completely and completely open the fresh air damper.
• **SCM3** - Damper servocontrols with spring return for 3-damper set-up. Servocontrols with spring return mounted directly on the dampers for management of freecooling as a replacement for the standard ones. In the event of blackout they close the external air dampers completely and completely open the fresh air damper.
• **FCH** - Enthalpy Free-cooling Only with 3-damper mixing chamber. Manages the flow of external and return air, making reference to their enthalpy values.
• **PR2** - Remote panel Allows to perform rooftop control operations from a distance.
•**SSV - RS485** serial interface for supervision Serial board necessary for the interface with supervision systems.
• **SQA** - Air quality probe. It analyses the quality of the air on the basis of a SnO2 sensor with VOC mixed gas, evaluating contamination by polluting gases. The presence of the probe coupled to the rooftop allows:
- to set a sensitivity threshold depending on the envisioned maximum contamination of the air.
- the ventilation of the rooms only when necessary, thus guaranteeing energy saving.
• **TV2** - Power supply voltage 3/230V/50Hz.
• **TV3** - Power supply voltage 3/460V/60Hz.
• **VTR** (3 - 5 - 7) - Anti-vibration mounts Rubber anti-vibration mounts.
• **PF** - Filters dirtying pressure switch
• **BSP** - Special coils Condensing coils with copper pipes and pre-painted aluminium louvers.
• **BSR** - Special coils Condensing coils with copper pipes and copper louvers.
• **BSS** - Special coils Condensing coils with copper pipes and tinned copper louvers.
NOTE: for further information refer to the technical manual.

Accessories coupling	**Size 240 - 260 - 300 -350 - 400**					
Version	**cooling only (F)**			**Heat pump (H)**		
Functioning	**std**	**L (no 350 and 400)**	**A (no 350 and 400)**	**std**	**L (no 350 and 400)**	**A (no 350 and 400)**
DCPR	✔	as per standard	✔	✔	as per standard	✔
TP	✔	✔	✔	as per standard	as per standard	as per standard
RUB	✔	✔	✔	-	-	-
GP	✔	✔	✔	✔	✔	✔
T1 (1)	✔	✔	✔	✔	✔	✔
T2 (1)	✔	✔	✔	✔	✔	✔
T3	✔	✔	✔	✔	✔	✔
T4	✔	✔	✔	✔	✔	✔
T5 (1)	✔	✔	✔	✔	✔	✔
T6 (1)	✔	✔	✔	✔	✔	✔
AI	✔	✔	✔	✔	✔	✔
PA4	✔	✔	✔	✔	✔	✔
MA	✔	✔	✔	✔	✔	✔
MS (1)	✔	✔	✔	✔	✔	✔
MD (1)	✔	✔	✔	✔	✔	✔
PM4	✔	✔	✔	✔	✔	✔
BTR	✔	✔	✔	✔	✔	✔
BRE	✔	✔	✔	✔	✔	✔
PUC	✔	✔	✔	✔	✔	✔
DP	✔	✔	✔	✔	✔	✔
SCS	✔	✔	✔	✔	✔	✔
SCSM	✔	✔	✔	✔	✔	✔
SCM3	✔	✔	✔	✔	✔	✔
FCH	✔	✔	✔	✔	✔	✔
PR2	✔	✔	✔	✔	✔	✔
SSV	✔	✔	✔	✔	✔	✔
SQA	✔	✔	✔	✔	✔	✔
TV2	✔	✔	✔	✔	✔	✔
TV3	✔	✔	✔	✔	✔	✔
VTR3 (basic set-up)	✔	✔	✔	✔	✔	✔
VTR5 (for units from 5 to 7.1 m)	✔	✔	✔	✔	✔	✔
VTR7 (for units over 7.1 m)	✔	✔	✔	✔	✔	✔
PF	✔	✔	✔	✔	✔	✔
BSP	✔	✔	✔	✔	✔	✔
BSR	✔	✔	✔	✔	✔	✔
BSS	✔	✔	✔	✔	✔	✔

(1) Right or left direction refers to the direction of air flow inside the handling sections.

Technical data

RTE F		standard					ver. (A)			ver. (L)		
		240	**260**	**300**	**350**	**400**	**240**	**260**	**300**	**240**	**260**	**300**
COOLING CAPACITY												
Cooling capacity	kW	77	89	103	129	143	78	90	106	69	84,5	102,6
Sensitive nominal cooling capacity	kW	50,1	61,2	67	77,7	92,6	50,7	62,1	68,7	44,7	58,3	66,7
Cooling input power	kW	20,7	25,3	31,8	39,7	44,5	20,3	24,8	30,7	24,8	27,3	32,1
E.E.R.		3,72	3,5	3,23	3,26	3,2	3,84	3,62	3,44	2,77	3,09	3,2
MOTOR CONDENSING SECTION												
Compressors												
Type		Scroll										
Number/circuits	n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Partialisation steps	%	0-50-100										
External fans		Axial										
Number x input power	n° x kW	4x0,53	4x0,53	4x0,53	4x0,56	4x0,56	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53
Air flow rate	m3/h	32000	29000	28000	40000	36000	14500	14000	16500	9500	9000	11000
HANDLING SECTION												
Evaporator												
Number of rows	n°	4	4	4	4	4	4	4	4	4	4	4
internal fan		Forward blade centrifugal type										
Nominal air flow rate	m3/h	12000	17000	20000	22000	23000	12000	17000	20000	12000	17000	20000
Number	n°	1	1	1	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200	200	200	200
Air filters												
Thickness	mm	50	50	50	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	72	73	74	77	78	72	73	74	69	70	71
ELECTRIC POWER SUPPLY												
Type	V/ph/Hz	400V/3N/50Hz										

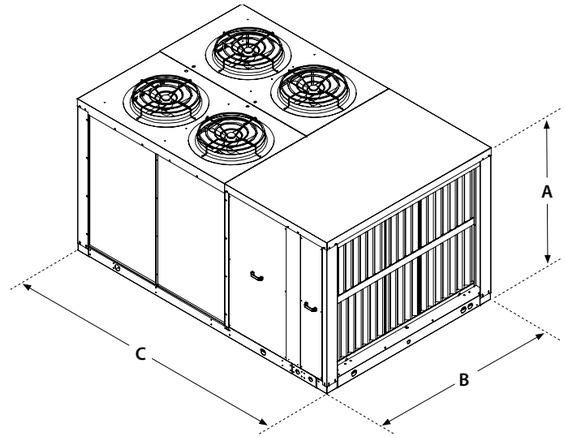
RTE H		standard					ver. (A)			ver. (L)		
COOLING CAPACITY		**240**	**260**	**300**	**350**	**400**	**240**	**260**	**300**	**240**	**260**	**300**
Cooling capacity	kW	76	88	105	128	141	77	89	105	68	83,6	101,6
Sensitive nominal cooling capacity	kW	50	61	66	77	92	50	61	68	44,2	55,6	65,9
Cooling input power	kW	20,4	25	30,8	38,5	43,1	20	24,4	30,4	24,4	26,8	31,6
E.E.R.		3,74	3,51	3,4	3,33	3,27	3,86	3,64	3,44	2,78	3,12	3,21
HEATING CAPACITY												
HEATING capacity	kW	73,4	86,3	103	127,6	142,2	77,1	87,4	101,5	74,5	83,6	98,5
Heating input power	kW	18,9	21,8	26,1	34,4	38,6	19,2	22,1	26,9	19	21,8	26,5
C.O.P.		3,88	3,96	3,94	3,71	3,68	4,01	3,95	3,77	3,92	3,83	3,71
MOTOR CONDENSING SECTION												
Compressors												
TYPE		Scroll										
Number/circuits	n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Partialisation steps	%	0-50-100										
External fans		Axial										
Number x input power	n° x kW	4x0,53	4x0,53	4x0,53	4x0,56	4x0,56	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53	4x0,53
Air flow rate	m3/h	36000	33000	32000	40000	34200	14500	14000	16500	9500	9000	11000
HANDLING SECTION												
Evaporator												
Number of rows	n°	4	4	4	4	4	4	4	4	4	4	4
internal fan		Forward blade centrifugal type										
Nominal air flow rate	m3/h	12000	17000	20000	22000	23000	12000	17000	20000	12000	17000	20000
Number	n°	1	1	1	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200	200	200	200
Air filters												
Thickness	mm	50	50	50	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	72	73	74	77	78	72	73	74	69	70	71
ELECTRIC POWER SUPPLY												
Type	V/ph/Hz	400V/3N/50Hz										

* Environment air 20°C d.b., water 80/70°C

The performance refers to the following conditions:
Cooling:
- Cooling capacity Tin 27°C RH 50% (Twb 19°C), Text 35°C RH 50%;

Heating:
- Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%.

Dimensional data (mm)



RTE			240	260	300	350	400
Height	A	mm	1.830	1.830	1.830	1.830	1.830
Width	B	mm	2.166	2.166	2.166	2.166	2.166
Depth	C	mm	3.290	3.290	3.290	3.286	3.286
Weight **RTE**		kg	1300	1390	1480	1.565	1.645
Weight **RTE H**		kg	1320	1410	1500	1.645	1.725

Dimensions and weights of the basic set-up unit.

The technical data given in this documentation are not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

Code : SRTE240_400UY.00 /1007

RTE

ROOF-TOP cooling only and heat pump unit
Cooling capacities from 150 up to 254 kW standard version
Heat capacities from 151 up to 266 kW standard version

R410A



Features

The rooftop units in the RTE range represent the ideal solution for air conditioning environments with average and large cubage for tertiary, commercial and industrial destination.
The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.
The use of ecological R410A fluid refrigerant allows to increase the unit efficiency.
The availability of many accessories, e.g. the cross flow recovery systems or the hot air generator with condensation, also confer a noteworthy versatility, making the RTE range perfectly suitable for the various system requirements.

Structure:
Self-supporting with external aluminium alloy and internal galvanised steel sandwich-type panelling with thickness of 50 mm and injected polyurethane insulation (density 42 kg/m3) for the air handling section.

Air handling section fan:
Double intake centrifugal type with blades facing.
forwards for greater silence, coupled using belts and pulleys with variable pitch.
The direction of delivery air flow can be: **UPWARDS, SIDEWAYS AND DOWNWARDS**.

Condensation section fans:
Statically and dynamically balanced helical type, protected electrically by magnet circuit breakers and mechanically by grids.

Double cooling circuit:
which at the same time guarantees the respect for the environment and the increase of energy efficiency. The cooling circuit lines and the electric plant wiring are inserted into the base of the machine with the purpose of making maintenance and internal cleaning easier.
Scroll tandem compressors that guarantee low noise and high efficiency.
Internal and external coil with copper pipes and high efficiency aluminium louvers.

Air filtering:
Pleated synthetic filters with G4 efficiency or F7 rigid pocket filters (optional).
Microprocessor adjustment
complete with electric control board, probes and actuators for all components.

Versions:
RTPA F cooling only version.
RTPA H heat pump.
High temperature functioning (A)
Silenced functioning (L)
SET-UPS:

SMP mixing chamber 2 dampers with rear intake.
SM2 mixing chamber 2 dampers with lateral/lower intake.
SM3 mixing chamber 3 dampers with free-cooling.
FT7 F7 (EN 779) efficiency rigid pocket filters.
REC cross flow heat recovery units with intake fan.
Gxxx condensation hot air generator.

Accessories

- **DCPR -** Pressure control device (as per standard for silenced functioning mode) Extends the functioning range of the rooftop in the summer cycle (minimum temperature of the external air up to 10 °C) and in the winter cycle in heat pump mode (maximum temperature of the external air up to 25 °C). Moreover, it makes functioning silent with partial loads. A regulation circuit board varies the number of the motor condensing fan revs on the basis of the condensation pressure, read by the relevant transducers, thus guaranteeing correct power supply of the thermostatic valve.
- **GP -** Protection grids Protect the external coils from blows and hail.
- **T1 -** Right lateral air intake (only on SM2).
- **T2 -** Left lateral air intake (only on SM2).
- **T4 -** Lower recirculation air intake. rear fresh air intake (only on SM2).
- **T5 -** Right lateral recirculation air intake. left fresh air intake (only on SM2).
- **T6 -** Left lateral recirculation air intake. right fresh air intake (only on SM2).
- **AI -** Lower intake (only on SM3).
- **PA4 -** Rear air intake Return fan static pressure up to 300 Pa at nominal flow rate.
- **MA -** Upper air delivery.
- **MS -** Left air delivery nominal air flow rate.
- **MD -** Right air delivery.
- **PM4 -** Delivery fan static pressure up to 400. Pa Static pressure of the delivery fan up to 400 Pa at nominal flow rate.
- **BTR -** Water heating coil 2 row hot water coil with anti-freeze probe as per standard. They can be managed in post-heating mode only with DP accessories. They can be coupled with the Gxxx generator.
- **V3V -** 3-way valve with servocontrol modulating for the management of the water coil mounted inside the rooftop
- **BRE -** Electric heating coil Electric heating coil with two stages fitted with twin safety thermostat, one with automatic rearm and the other with manual rearm.
  They can be managed in post-heating mode only with DP accessories. The BRE cannot be coupled with the Gxxx generator.
- **PUC -** Humidification control set-up. ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with humidity probe positioned in the environment air return. A humidity probe is also supplied to be positioned downstream from the humidification section.
- **DP -** Kit for management of dehumidification and post-heating The control will force compressor functioning in order to dehumidify the air to the set humidity set. If the water or electric coil is present, post-heating can also be managed. It can be coupled with the PUC accessory (humidification contact).
- **SCSR -** Recirculation damper for SMP mixing chamber.
- **SRP -** Recirculation damper for the SMP mixing chamber and modulating servocontrol (joined dampers).
- **SCMP -** Recirculation damper for the SMP mixing chamber and modulating servocontrol with spring return.
- **SCS2 -** Recirculation damper for SM2 mixing chamber.
- **SR2 -** Recirculation damper for the SM2 mixing chamber and modulating servocontrol.
- **SCM2 -** Recirculation damper for the SM2 mixing chamber and modulating servocontrol on return and modulating servocontrol with spring return on fresh air.
- **SCM3 -** Modulating servocontrols with spring control for SM3 or REC set-ups.
- **FCH -** Enthalpy Free-cooling Only with 3-damper mixing chamber. Manages the flow of external and return air, making reference to their enthalpy values.
- **PR2 -** Remote panel Allows to perform rooftop control operations from a distance.
- **SSV -** RS485 serial interface for supervision Serial board necessary for the interface with supervision systems.
- **SQA -** Air quality probe. It analyses the quality of the air on the basis of a SnO2 sensor with VOC mixed gas, evaluating contamination by polluting gases. The presence of the probe coupled to the rooftop allows:
  - to set a sensitivity threshold depending on the envisioned maximum contamination of the air.
  - the ventilation of the rooms only when necessary, thus guaranteeing energy saving.
- **CAF -** For protection of the external air inlets in the mixing chambers with 2 dampers or recovery unit. As per standard with SM3.
- **CF -** Stainless steel flue, double isolated wall with inspection cap and measuring sump with flue gas temperature thermometer.
- **PF -** Filters dirtying pressure switch.
- **RUB -** Cocks on the liquid and pressing line (cooling only version).

NOTE: for further information refer to the technical manual.

Accessories coupling	Size 480-530-600-700-800					
Version	cooling only (F)			Heat pumps (H)		
Functioning	std	L	A (no 700 - 800)	std	L	A (no 700 - 800)
DCPR	✔	standard	✔	✔	standard	✔
TP	✔	✔	✔	standard	standard	standard
GP	✔	✔	✔	✔	✔	✔
T1	✔	✔	✔	✔	✔	✔
T2	✔	✔	✔	✔	✔	✔
T4	✔	✔	✔	✔	✔	✔
T5	✔	✔	✔	✔	✔	✔
T6	✔	✔	✔	✔	✔	✔
AI	✔	✔	✔	✔	✔	✔
PA4	✔	✔	✔	✔	✔	✔
MA	✔	✔	✔	✔	✔	✔
PM4	✔	✔	✔	✔	✔	✔
BTR	✔	✔	✔	✔	✔	✔
V3V	✔	✔	✔	✔	✔	✔
BRE (1)	✔	✔	✔	✔	✔	✔
PUC	✔	✔	✔	✔	✔	✔
DP	✔	✔	✔	✔	✔	✔
SCSR	✔	✔	✔	✔	✔	✔
SRP	✔	✔	✔	✔	✔	✔
SCMP	✔	✔	✔	✔	✔	✔
SCS2	✔	✔	✔	✔	✔	✔
SR2	✔	✔	✔	✔	✔	✔
SCM2	✔	✔	✔	✔	✔	✔
SCM3	✔	✔	✔	✔	✔	✔
FCH	✔	✔	✔	✔	✔	✔
PR2	✔	✔	✔	✔	✔	✔
SSV	✔	✔	✔	✔	✔	✔
SQA	✔	✔	✔	✔	✔	✔
CAF	✔	✔	✔	✔	✔	✔
CF (only with Gxxx)	✔	✔	✔	✔	✔	✔
PF	✔	✔	✔	✔	✔	✔
RUB	✔	✔	✔	-	-	-
VT	✔	✔	✔	✔	✔	✔

(1) Not available with Gxxx set-ups.

Technical data

RTE F		standard					ver. (A)		
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**	**480**	**530**	**600**
Cooling capacity	kW	150	179	198	232,1	254,8	156	182,7	208,5
Sensitive nominal cooling capacity	kW	121,1	146	158	183,4	199,9	123,6	148,9	160,8
Cooling input power	kW	56,1	63	67	79,8	92	53,7	59,2	63,3
E.E.R.		2,68	2,82	2,94	2,91	2,77	2,91	3,08	3,29
MOTOR CONDENSING SECTION									
Compressors									
Type		Scroll tandem							
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
External fans		Axial							
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2	4/2,5	4/2,5	4/2,5
Air flow rate	m3/h	74600	72400	69200	84400	80600	72400	69200	67400
HANDLING SECTION									
Evaporator									
Number of rows	n°	3	4	4	4	4	3	4	4
internal fan		forward blade centrifugal type							
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500	26500	29500	31500
Number	n°	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200
Air filters									
Thickness	mm	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	79	80	81	84	85	79	80	81
ELECTRIC POWER SUPPLY									
Type	V/ph/Hz	400V/3/50Hz							

RTE H		standard					ver. (A)		
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**	**480**	**530**	**600**
Cooling capacity	kW	147	176	194,6	230,4	254	152,9	181,2	205,2
Sensitive nominal cooling capacity	kW	120	145	156,9	182,7	200	122,3	146,5	156,8
Cooling input power	kW	58	62	69,1	81	93,1	54,3	60,6	63,3
E.E.R.		3	3	2,82	2,84	2,73	2,82	2,99	3,24
HEATING CAPACITY									
HEATING capacity	kW	151,3	178,5	202,9	231,5	266,1	159,1	183,8	208,3
Heating input power	kW	48,1	52,5	60,4	75,6	87,1	48,7	52,8	61,5
C.O.P.		3,15	3,4	3,36	3,06	3,06	3,27	3,48	3,39
MOTOR CONDENSING SECTION									
Compressors									
Type		Scroll tandem							
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
External fans		Axial							
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2	4/2,5	4/2,5	4/2,5
Air flow rate	m3/h	74600	72400	69200	84400	80600	72400	69200	67400
HANDLING SECTION									
Evaporator									
Number of rows	n°	3	4	4	4	4	3	4	4
internal fan		forward blade centrifugal type							
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500	26500	29500	31500
Number	n°	1	1	1	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200	200	200	200
Air filters									
Thickness	mm	50	50	50	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4	G4	G4	G4
Sound pressure	dB(A)	79	80	81	84	85	79	80	81
ELECTRIC POWER SUPPLY									
Type	V/ph/Hz	400V/3/50Hz							

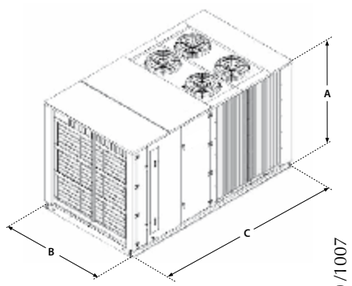
The performance refers to the following conditions:
Cooling:
- Cooling capacity Tin 27°C RH 50% (Twb 19°C), Text 35°C RH 50%;

Heating:
- Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%.

Technical data

RTE F		ver. (L)				
		480	**530**	**600**	**700**	**800**
COOLING CAPACITY						
Cooling capacity	kW	148	178,6	201,1	231	251
Sensitive nominal cooling capacity	kW	124	146,2	159,7	182,5	199,9
Cooling input power	kW	57	61,1	65,5	80,6	95,2
E.E.R.		2,59	2,92	3,07	2,86	2,63
MOTOR CONDENSING SECTION						
Compressors						
Type		Scroll tandem				
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2
Partialisation steps	n°	4	4	4	4	4
External fans		Axial				
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2
Air flow rate	m3/h	57800	55400	51800	63200	59800
HANDLING SECTION						
Evaporator						
Number of rows	n°	3	4	4	4	4
internal fan		forward blade centrifugal type				
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500
Number	n°	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200
Air filters						
Thickness	mm	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4
Sound pressure	dB(A)	76	77	78	81	82
ELECTRIC POWER SUPPLY						
Type	V/ph/Hz	400V/3/50Hz				

RTE H		ver. (L)				
COOLING CAPACITY		**480**	**530**	**600**	**700**	**800**
Cooling capacity	kW	145,2	176,3	198	229	250,4
Sensitive nominal cooling capacity	kW	118,9	145,1	159	182	198
Cooling input power	kW	59,1	62	66,7	82,2	96,2
E.E.R.		2,45	2,84	2,97	2,78	2,6
HEATING CAPACITY						
Heating capacity	kW	150,1	179,6	195	227,7	250,1
Heating input power	kW	47,9	52,6	59,9	75	85,1
C.O.P.		3,13	3,41	3,25	3,03	2,94
MOTOR CONDENSING SECTION						
Compressors						
Type		Scroll tandem				
Number/circuits	n°/n°	4/2	4/2	4/2	4/2	4/2
Partialisation steps	n°	4	4	4	4	4
External fans		Axial				
Number x input power	n° x kW	4/2,5	4/2,5	4/2,5	4/2	4/2
Air flow rate	m3/h	57800	55400	51800	63200	59800
HANDLING SECTION						
Evaporator						
Number of rows	n°	4	4	4	4	4
internal fan		forward blade centrifugal type				
Nominal air flow rate	m3/h	26500	29500	31500	35000	38500
Number	n°	1	1	1	1	1
Useful static pressure guaranteed	Pa	200	200	200	200	200
Air filters						
Thickness	mm	50	50	50	50	50
Efficiency		G4	G4	G4	G4	G4
Sound pressure	dB(A)	76	77	78	81	82
ELECTRIC POWER SUPPLY						
Type	V/ph/Hz	400V/3/50Hz				



Dimensional data (mm)

RTE			480	530	600	700	800
Height	A	mm	2450	2450	2.450	2.450	2450
Width	B	mm	2350	2350	2.350	2.350	2350
Depth	C	mm	4200	4200	4.200	5.500	5500
Depth **RTE**		kg	2100	2200	2300	2700	2800
Depth **RTE H**		kg	2200	2300	2400	2800	2900

Dimensions and weights of the basic set-up unit.

Code : SRTE480_800UY.00 /1007

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
♪ 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

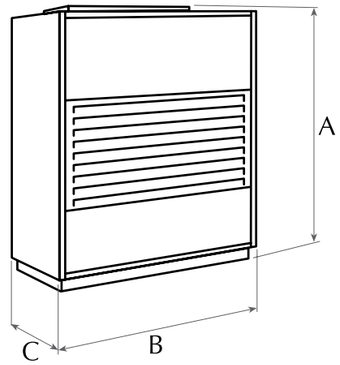
Power supply: 3~ 230V 50Hz; 3N~ 400V 50Hz.

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;

♪ 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

SAP

Buffer tank with capacity from 75 to 3500 litres





Features

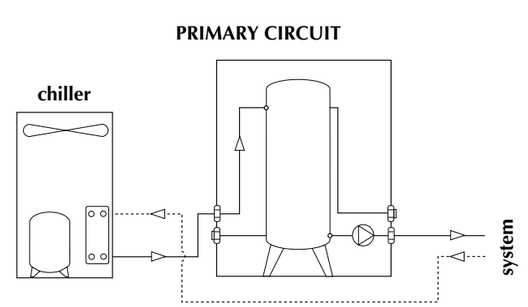
- Buffer tank with pump fully assembled to be used together with water chillers. Hydraulic connections to be site installed
- Units dimensionally compatible with Aermec NBW, NRA, R, RV water chillers, but also compatible with any chiller
- Steel enclosure with epoxy powder coating for the maximum resistance 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.

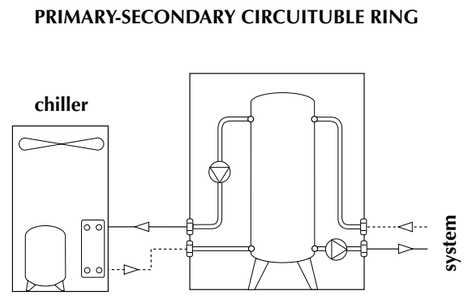
Accessories

- **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





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

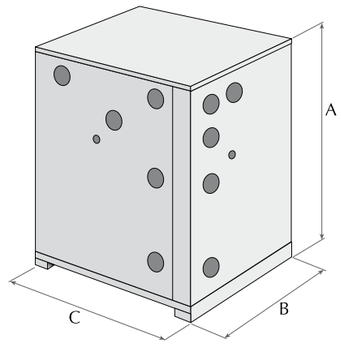
Pump combinations												
SAP 0075	AC	AE	AF	AZ	BC	BE	BF	BZ	ZC	ZE	ZF	ZZ
SAP 0150	AC	AE	AF	AZ	BC	BE	BF	BZ	CC	CE	CF	CZ
	EC	EE	EF	EZ	FC	FE	FF	FZ	ZC	ZE	ZF	ZZ
SAP 0300						CS	CZ	ES	EZ	FS	FZ	ZZ
SAP 0500				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0501				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0750				FS	FZ	GS	GZ	HS	HZ	LS	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.

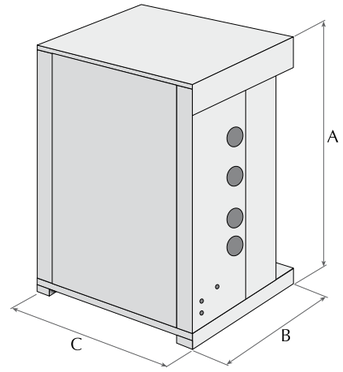
The combinations shown in the table are the only possible ones.
A large number of different flow rate/pressure combinations are available. Refer to the technical manual.

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

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 with only silenced and Inspection window standard**
- **TRA from 850 up to 1100 standard and silenced 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

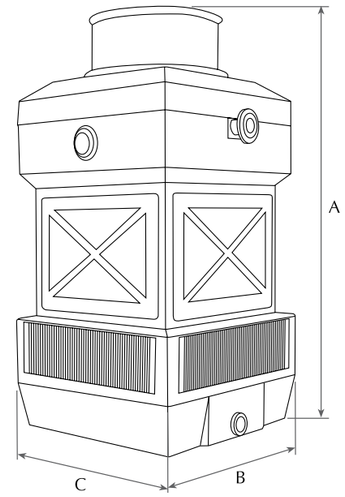
Mod. TRA		**400**	**500**	**550**	**600**	**750**	**850**	**950**	**1100**
Capacity	kW	405,35	488,37	574,19	604,88	767,44	856,74	941,86	1084,88
Air flow rate	m^3/h	28350	28350	36000	45350	45350	58000	58000	67000
Water flow rate	l/h	58100	70000	82300	86700	110000	122800	135000	155500
Pressure drops	kPa	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)



Mod. TRA		**50**	**70**	**90**	**110**	**130**	**170**	**200**	**240**	**300**	**400**	**500**	**550**	**600**	**750**	**850**	**950**	**1100**
Height	A	2110	2110	2595	2595	2595	2800	2800	2860	2860	3140	3140	3380	3450	3450	3685	3685	3685
Width	B	800	800	1000	1000	1000	1200	1200	1400	1400	1740	1740	1900	2100	2100	2025	2025	2360
Depth	C	800	800	1000	1000	1000	1200	1200	1400	1400	1740	1740	2100	2300	2300	2360	2360	2380
Weight	kg	75	75	85	95	95	170	170	210	210	410	410	500	555	580	850	815	915

Cod.: STRAUY.02 / 1008

AERMEC

NEW

CSE - CDR - CVA - CVR

Air remote condensers



CSE



CDR-CVR



CVA

Characteristics

CSE SERIES General characteristics
- Modularity has been prioritized in the design: each unit is made up of standard sections, whose elements are easily dismantlable
- Starting from the CSE 563 in the ø 500 series, and from the CSE 663 in the ø 630 series, there are models made up of two units side by side, making vertical installation impossible. All the other models are designed for either horizontal or vertical installation.
- To facilitate the connection of the condensers to the electrical system, the fan motors are wired in the factory (excluding the 350 diameter series) and connected to a junction box located on the manifold side and protected, together with the manifolds, by an easily removable cover.

Construction characteristics
- They are designed for outdoor installation and therefore made with technologies and materials which ensure resistance to atmospheric agents
- Coils with staggered copper pipes and corrugated aluminium fins, mechanically expanded. The coils are fixed at the shoulders so as to avoid breakage of the tubes as a result of any vibration.
- Manifolds in copper with connectors for soldering, sealed to prevent the ingress of impurities and moisture into the circuits.
- Latest generation of axial fans to ensure silent operation and high output, protection grade IP54. They are intended for Δ/Y connection and various polarities, and allow continuous regulation of the speed by reducing the voltage.
- Available versions:

(B) basic
(S) silenced
(E) extra silenced.

SERIES CDR
General characteristics
- Two exchangers arranged in a V
- Two independent cooling circuits
- Two rows of fans, diameter 800mm
- From 6 to 10 fans
- Separate ventilation compartment for each fan

Construction characteristics
- They are designed for outdoor installation and therefore made with technologies and materials which ensure resistance to atmospheric agents
- High-efficiency finned exchangers
- Latest generation of axial fans to ensure silent operation and high output, protection grade IP54. The standard units are supplied with the fans wired up to a junction box. Separate airflow for each fan.
- Available versions:

(BT) basic 6 pole
(ST) silenced 8 pole
(ET) extra silenced 12 pole

CVA SERIES General characteristics
- Exchangers in W configuration
- Low noise
- Two rows of fans, diameter 800mm
- With 6 to 8 fans

Construction characteristics
- They are designed for outdoor installation and therefore made with technologies and materials which ensure resistance to atmospheric agents
- 4 high-efficiency finned exchangers
- Latest generation of axial fans to ensure silent operation and high output, protection grade IP54. The standard units are supplied with the fans wired up to a junction box. Separate airflow for each fan.
- Available versions:

(BT) basic 6 pole
(ST) silenced 8 pole
(ET) extra silenced 12 pole

CVR SERIES General characteristics
- Two exchangers arranged in a V
- Diameter of fans 800 mm
- From 2 to 5 fans
- Separate ventilation compartment for each fan

Construction characteristics
- They are designed for outdoor installation and therefore made with technologies and materials which ensure resistance to atmospheric agents
- High-efficiency finned exchangers
- Latest generation of axial fans to ensure silent operation and high output, protection grade IP54. The standard units are supplied with the fans wired up to a junction box. Separate airflow for each fan. The extremely small dimensions allow installation in restricted spaces, high power output for area occupied
- Available versions:

(BT) basic 6 pole
(ST) silenced 8 pole
(ET) extra silenced 12 pole

Choice of unit

By suitably combining the numeurus options available, it's possible to configure each model in such a way as to meet the most particular of system requirements.

Fielf configurator:

1 2 3	4	5	6 7	8	9	10	11
Code	Refrigerant	ø Fans	n° Fans	n° rows coil	Motor type	Power supply	Electrical connection

Size:
CSE-CVR-CVA-CDR
Gas:
X - R410A
° - Fluidi refrigeranti con PS max 28 bar
ø fans (mm):
3 - 350
5 - 500
6 - 630
8 - 800
9 - 910
n° fans:
* - da 1 a 16
N° rows:
* - da 2 a 6

motor type:
B - Standard
S - Silenced
E - Extra silenced
C - Brushless motor with electronic commutation (EC)
Power supply:
T - 400V/3/50Hz
M - 230V/1/ 50Hz
Electrical connection:
D - Triangle
Y - Star
° - Monophase

Combinations

To facilitate the choice of condenser, we have provided tables below with the combinations of condeseless Aermec unit. The combinations specified require the compulsory use of an RPM regulator and an electrical panel, to ensure correct operation under varying external conditions.

Condenserless unit	number of circuits of condenserless unit	number of remote condensers	Condenser	number of circuits of remote condenser	refrigerant	wiring connection	condensing temperature °C	ambient temperature °C	condenser capacity kW	Sound pressure dB(A)	control box type n°/Type	speed regulator n°	transducer n°	refrigerant pipeworks kit *	(request for) double coolig circuit *
WRL025E	1	1	CSEX3014SM	1	R410A	Monophase	50	30	8	26	no	1	1	no	
		1	CSEX3013BM	1	R410A	Monophase	45	30	9	36	no	1	1	no	
WRL030E	1	1	CSEX3012BM	1	R410A	Monophase	50	30	10	36	no	1	1	no	
		1	CSEX3022SM	1	R410A	Monophase	45	30	11	29	no	1	1	no	
WRL040E	1	1	CSEX3022SM	1	R410A	Monophase	50	30	15	29	no	1	1	no	
		1	CSEX5014EM	1	R410A	Monophase	45	30	15	32	no	1	1	no	
WRL050E	1	1	CSEX5013STY	1	R410A	star	50	30	19	31	1/QA1	1	1	no	
		1	CSEX5014STD	1	R410A	triangle	45	30	19	38	1/QA1	1	1	no	
		1	CSEX6013ETD	1	R410A	triangle	45	30	19	32	1/QA1	1	1	no	
		1	CSEX5025ETY	1	R410A	star	45	30	19	29	1/QA1	1	1	no	
WRL070E	1	1	CSEX5013STD	1	R410A	triangle	50	30	23	38	1/QA1	1	1	no	
		1	CSEX6014STY	1	R410A	star	45	30	23	34	1/QA1	1	1	no	
WRL080E	1	1	CSEX5015STD	1	R410A	triangle	50	30	27	38	1/QA1	1	1	no	
		1	CSEX6014STD	1	R410A	triangle	45	30	27	42	1/QA1	1	1	no	
		1	CSEX5023STY	1	R410A	star	45	30	28	34	1/QA1	1	1	no	
WRL100E	1	1	CSEX6014BTY	1	R410A	star	50	30	38	43	1/QA1	1	1	no	
		1	CSEX6015BTD	1	R410A	triangle	45	30	37	49	1/QA1	1	1	no	
		1	CSEX6023ETD	1	R410A	triangle	45	30	37	35	1/QA1	1	1	no	
WRL140E	1	1	CSEX6014BTD	1	R410A	triangle	50	30	45	49	1/QA1	1	1	no	
		1	CSEX6023STD	1	R410A	triangle	45	30	48	45	1/QA1	1	1	no	
		1	CSEX6024STY	1	R410A	star	45	30	45	37	1/QA1	1	1	no	

*** Accessory to be provided in the order**

Sound pressure
measured in free field conditions, in cooling mode, at distance of 10m and direction factors = 2 in accordance with the ISO 3744 standard

Combinations

Condenserless unit	number of circuits of condenserless unit	number of remote condensers	Condenser	number of circuits of remote condenser	refrigerant	wiring connection	condensing temperature °C	ambient temperature °C	condenser capacity kW	Sound pressure dB(A)	control box type n°/Type	speed regulator n°	transducer n°	refrigerant pipeworks kit *	(request for) double coolig circuit *
WRL160E	1	1	CSEX5024BTY	1	R410A	star	50	30	54	45	1/QA1	1	1	no	
		1	CSEX6023BTY	1	R410A	star	45	30	53	46	1/QA1	1	1	no	
		1	CSEX6033ETD	1	R410A	triangle	45	30	56	37	1/QA2	1	1	no	
WRL180E	1	1	CSEX6023STD	1	R410A	triangle	50	30	64	45	1/QA1	1	1	no	
		1	CSEX6023BTD	1	R410A	triangle	45	30	61	52	1/QA1	1	1	no	
		1	CSEX6033STY	1	R410A	star	45	30	61	39	1/QA2	1	1	no	
WRL200E	1	1	CSEX6023BTD	1	R410A	triangle	50	30	81	52	1/QA1	1	1	no	
		1	CSEX6033BTY	1	R410A	star	45	30	79	48	1/QA2	1	1	no	
		1	CSEX6043STY	1	R410A	star	45	30	82	40	1/QA2	1	1	no	
WRL300E	1	1	CSEX6024BTD	1	R410A	triangle	50	30	91	52	1/QA1	1	1	no	
		1	CSEX6033BTD	1	R410A	triangle	45	30	91	54	1/QA2	1	1	no	
		1	CSEX8024STY	1	R410A	star	45	30	90	41	1/QA1	1	1	no	
WRL400E	1	1	CSEX6025BTD	1	R410A	triangle	50	30	99	52	1/QA1	1	1	no	
		1	CSEX6034BTD	1	R410A	triangle	45	30	102	54	1/QA2	1	1	no	
		1	CVRX8023STY	2	R410A	star	45	30	100	37	1/QA1	1	1	yes	
WRL500E	1	1	CSEX6033BTD	1	R410A	triangle	50	30	122	54	1/QA2	1	1	no	
		1	CSEX8024BTY	1	R410A	star	45	30	115	49	1/QA1	1	1	no	
		1	CVRX8023STD	2	R410A	triangle	45	30	125	43	1/QA1	1	1	yes	
		1	CSEX8033ETD	1	R410A	triangle	46	30	118	40	1/QA2	1	1	no	
WRL550E	1	1	CSEX8024BTY	1	R410A	star	50	45	154	49	1/QA1	1	1	no	
		1	CVRX8023BTD	2	R410A	triangle	45	30	162	51	1/QA1	1	1	yes	
		1	CVRX8033STY	2	R410A	star	45	30	151	39	1/QA2	1	1	yes	
WRL600E	1	1	CSEX8024BTD	1	R410A	triangle	50	30	191	55	1/QA1	1	1	no	
		1	CVRX8024BTD	2	R410A	triangle	45	30	180	51	1/QA1	1	1	yes	
		1	CVRX8033STD	2	R410A	triangle	45	30	188	45	1/QA2	1	1	yes	
		1	CVRX8043ETD	2	R410A	triangle	45	30	178	36	1/QA2	1	1	yes	
WRL650E	1	1	CVRX8023BTD	2	R410A	triangle	50	30	216	51	1/QA1	1	1	yes	
		1	CSEX8034BTD	1	R410A	triangle	45	30	215	57	1/QA2	1	1	no	
		1	CVRX8034STD	2	R410A	triangle	45	30	200	45	1/QA2	1	1	yes	
		1	CVRX8043STY	2	R410A	star	45	30	202	40	1/QA2	1	1	yes	
NXW500E	2	1	CSEX6034BTD	2	R410A	triangle	50	30	137	54	1/QA2	1	2	no	yes
		1	CSEX9024BTD	2	R410A	triangle	45	30	133	59	1/QA1	1	2	no	yes
		1	CSEX6044BTD	2	R410A	triangle	45	30	136	55	1/QA2	1	2	no	yes
		1	CVRX8023BTY	2	R410A	star	45	30	130	44	1/QA1	1	2	no	no
NXW550E	2	1	CSEX8023BTY	2	R410A	star	50	30	141	49	1/QA1	1	2	no	yes
		1	CSEX8024BTD	2	R410A	triangle	45	30	143	55	1/QA1	1	2	no	yes
		1	CVRX8024BTY	2	R410A	star	45	30	145	44	1/QA1	1	2	no	no
		1	CVRX8043ETY	2	R410A	star	45	30	145	32	1/QA2	1	2	no	no
NXW600E	2	1	CSEX9024BTD	2	R410A	triangle	50	30	178	59	1/QA1	1	2	no	yes
		1	CSEX6044BTD	2	R410A	triangle	50	30	182	55	1/QA2	1	2	no	yes
		1	CVRX8024BTD	2	R410A	triangle	45	30	180	51	1/QA1	1	2	no	no
		1	CVRX8033STD	2	R410A	triangle	45	30	188	45	1/QA2	1	2	no	no
NXW650E	2	1	CSEX9026BTD	2	R410A	triangle	50	30	202	59	1/QA1	1	2	no	yes
		1	CVRX8024BTY	2	R410A	star	50	30	194	44	1/QA1	1	2	no	no
		1	CSEX9034BTD	2	R410A	triangle	45	30	201	61	1/QA2	1	2	no	yes
		1	CVRX8033BTY	2	R410A	star	45	30	196	46	1/QA2	1	2	no	no
NXW700E	2	1	CVRX8024BTD	2	R410A	triangle	50	30	240	51	1/QA1	1	2	no	no
		1	CSEX9036BTD	2	R410A	triangle	45	30	227	61	1/QA2	1	2	no	yes
		1	CDRX8043STD	2	R410A	triangle	45	30	221	46	2/QA1	2	2	no	no
NXW750E	2	1	CSEX9034BTD	2	R410A	triangle	50	30	268	61	1/QA2	1	2	no	yes
		1	CVRX8034BTD	2	R410A	triangle	45	30	270	53	1/QA2	1	2	no	no
		1	CVRX8043BTY	2	R410A	star	45	30	262	47	1/QA2	1	2	no	no
		1	CVRX8054STY	2	R410A	star	45	30	259	41	1/QA3	1	2	no	no
NXW800E	2	1	CVRX8033BTD	2	R410A	triangle	50	30	325	53	1/QA2	1	2	no	no
		1	CVRX8043BTD	2	R410A	triangle	45	30	325	54	1/QA2	1	2	no	no
		1	CVRX8053STD	2	R410A	triangle	45	30	313	47	1/QA3	1	2	no	no
		1	CDRX8083ETD	2	R410A	triangle	45	30	300	39	2/QA2	2	2	no	no

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Sound pressure
measued in free field conditions, in cooling mode, at distance of 10m and direction factors = 2 in accordance with the ISO 3744 standard

Combinations

Condenserless unit	number of circuits of condenserless unit	number of remote condensers	Condenser	number of circuits of remote condenser	refrigerant	wiring connection	condensing temperature °C	ambient temperature °C	condenser capacity kW	Sound pressure dB(A)	control box type n°/Type	speed regulator n°	transducer n°	refrigerant pipeworks kit *	(request for) double coolig circuit *
NXW900E	2	1	CSEX8043BTD	2	R410A	triangle	50	30	339	58	2/QA1	2	2	no	no
		1	CVRX8034BTD	2	R410A	triangle	50	30	361	53	1/QA2	1	2	no	no
		1	CVRX8044BTD	2	R410A	triangle	45	30	361	54	1/QA2	1	2	no	no
		1	CVRX8054BTY	2	R410A	star	45	30	348	48	1/QA3	1	2	no	no
		1	CDRX8083STY	2	R410A	star	45	30	348	43	2/QA2	2	2	no	no
NXW1000E	2	1	CSEX8044BTD	2	R410A	triangle	50	30	382	58	2/QA1	2	2	no	no
		1	CSEX8063BTD	2	R410A	triangle	45	30	382	60	2/QA2	2	2	no	no
		1	CVRX8053BTD	2	R410A	triangle	45	30	406	55	1/QA3	1	2	no	no
		1	CDRX8103ETD	2	R410A	triangle	45	30	378	40	2/QA3	2	2	no	no
NXW1250E	2	1	CVRX8043BTD	2	R410A	Triangle	50	30	434	54	1/QA2	1	2	no	no
		1	CSEX8064BTD	2	R410A	Triangle	45	30	430	60	2/QA2	2	2	no	no
		1	CVRX8054BTD	2	R410A	Triangle	45	30	451	55	1/QA3	1	2	no	no
		1	CDRX8103STY	2	R410A	Star	45	30	435	44	2/QA3	2	2	no	no
NXW1400E	2	1	CVRX8044BTD	2	R410A	triangle	50	30	481	54	1/QA2	1	2	no	no
		1	CVRX8054BTD	2	R410A	triangle	45	30	451	55	1/QA3	1	2	no	no
		1	CDRX8084STD	2	R410A	triangle	45	30	469	49	2/QA2	2	2	no	no
		1	CDRX8104STY	2	R410A	star	45	30	440	44	2/QA3	2	2	no	no
WSA/WSB701E	1	1	CVR°833BTD	2	R134a	triangle	45	30	222	53	1/QA2	1	1	yes	
		1	CVR°853ETD	2	R134a	triangle	45	30	200	37	1/QA3	1	1	yes	
		1	CSE°843BTD	2	R134a	triangle	45	30	232	58	2/QA1	2	1	yes	
		1	CSE°863STY	2	R134a	star	45	30	288	46	2/QA2	2	1	yes	
WSA/WSB801E	1	1	CVR°834BTD	2	R134a	triangle	45	30	247	53	1/QA2	1	1	yes	
		1	CVR°853STY	2	R134a	star	45	30	229	41	1/QA3	1	1	yes	
		1	CSE°844BTD	2	R134a	triangle	45	30	261	58	2/QA1	2	1	yes	
		1	CSE°864STY	2	R134a	star	45	30	249	46	2/QA2	2	1	yes	
WSA/WSB901E	1	1	CVR°834BTD	2	R134a	triangle	45	30	247	53	1/QA2	1	1	yes	
		1	CVR°843BTD	2	R134a	triangle	45	30	297	54	1/QA2	1	1	yes	
		1	CVR°853STD	2	R134a	triangle	45	30	286	47	1/QA3	1	1	yes	
		1	CSE°863BTY	2	R134a	star	45	30	288	54	2/QA2	2	1	yes	
WSA/WSB1101E	1	1	CVR°843BTD	2	R134a	triangle	45	30	297	54	1/QA2	1	1	yes	
		1	CVR°844BTD	2	R134a	triangle	45	30	329	54	1/QA2	1	1	yes	
		1	CVR°854BTY	2	R134a	star	45	30	317	48	1/QA3	1	1	yes	
		1	CSE°863BTD	2	R134a	triangle	45	30	348	60	2/QA2	2	1	yes	
WSA/WSB1402E	2	1	CVR°853BTD	2	R134a	triangle	45	30	370	55	1/QA3	1	2	no	
		1	CDR°864BTD	2	R134a	triangle	45	30	405	56	2/QA2	2	2	no	
		1	CDR°883STD	2	R134a	triangle	45	30	402	49	2/QA2	2	2	no	
		1	CDR°8104STD	2	R134a	triangle	45	30	535	50	2/QA3	2	2	no	
WSA/WSB1602E	2	1	CVR°854BTD	2	R134a	triangle	45	30	412	55	1/QA3	1	2	no	
		1	CDR°883BTD	2	R134a	triangle	45	30	494	57	2/QA2	2	2	no	
		1	CDR°8103STD	2	R134a	triangle	45	30	502	50	2/QA3	2	2	no	
WSA/WSB1802E	2	1	CDR°883BTD	2	R134a	triangle	45	30	494	57	2/QA2	2	2	no	
		1	CDR°884BTD	2	R134a	triangle	45	30	540	57	2/QA2	2	2	no	
		1	CDR°8104STD	2	R134a	triangle	45	30	535	50	2/QA3	2	2	no	
WSA/WSB2002E	2	1+1	CVR°843BTD	2	R134a	triangle	45	30	297	54	1/QA2	1	1	yes	
			CVR°844BTD	2	R134a	triangle			329	54	1/QA2	1	1	yes	
	2	1	CDR°8103BTD	2	R134a	triangle	45	30	621	58	2/QA3	2	2	no	
	2	1+1	CDR°884STY	2	R134a	star	45	30	320	43	1/QA4	1	1	yes	
			CDR°883ETD	2	R134a	triangle			274	39	1/QA4	1	1	yes	
WSA/WSB2202E	2	1	CDR°8103BTD	2	R134a	triangle	45	30	621	58	2/QA3	2	2	no	
		1	CDR°8104BTD	2	R134a	triangle	45	30	675	57	2/QA3	2	2	no	
		2	CVR°854BTY	1	R134a	star	45	30	317	50	2/QA3	2	2	yes	
WSA/WSB2502E	2	1	CDR°8104BTD	2	R134a	triangle	45	30	675	58	2/QA3	2	2	no	
		2	CVR°853BTD	1	R134a	triangle	45	30	370	57	2/QA3	2	2	yes	
		2	CVA°883STD	1	R134a	Triangle	45	30	431	50	2/QA4	2	2	yes	
WSA/WSB2802E	2	2	CVR°854BTD	1	R134a	triangle	45	30	412	58	2/QA3	2	2	yes	
		2	CVA°864BTD	1	R134a	triangle	45	30	415	57	2/QA3	2	2	yes	
		2	CVA°884STD	1	R134a	Triangle	45	30	424	50	2/QA4	2	2	yes	

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Combinations

Condenserless unit	number of circuits of condenserless unit	number of remote condensers	Condenser	number of circuits of remote condenser	refrigerant	wiring connection	condensing temperature °C	ambient temperature °C	condenser capacity kW	Sound pressure dB(A)	control box type n°/Type	speed regulator n°	transducer n°	refrigerant pipeworks kit *	(request for) double coolig circuit *
HWF2512°E	2	1	CDR°8084BTD	2	R134a	triangle	50	30	719	57	2/QA2	2	2	no	
		1	CDR°8104BTD	2	R134a	triangle	45.2	30	684	58	2/QA3	2	2	no	
		1	CVA°8163STY	2	R134a	star	46	30	693	46	2/QA4	2	2	no	
HWF2812°E	2	1	CDR°8103BTD	2	R134a	triangle	50	30	828	58	2/QA3	2	2	no	
		1	CVA°8123BTD	2	R134a	triangle	45	30	776	59	2/QA3	2	2	no	
		1	CVA°8163STD	2	R134a	triangle	45	30	798	52	2/QA4	2	2	no	
HWF3212°E	2	1	CVA°8123BTD	2	R134a	triangle	48	30	932	59	2/QA3	2	2	no	
		1	CVA°8163BTD	2	R134a	triangle	44	30	945	60	2/QA4	2	2	no	
		2	CVA°8103STD	2	R134a	triangle	45	30	983	53	1/QA2-1/QA3	2	2	yes	
		2	CVA°8143ETD	2	R134a	triangle	45	30	998	44	1/QA3-1/QA4	2	2	yes	
HWF3612°E	2	1	CVA°8123BTD	2	R134a	triangle	50	30	1035	59	2/QA3	2	2	no	
		1	CVA°8164BTD	2	R134a	triangle	45	30	1103	60	2/QA4	2	2	no	
		2	CDR°8103BTY	2	R134a	star	45	30	1036	54	1/Q5	1	2	yes	
HWF4212°E	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8084BTD	2	R134a	triangle	45	30	1187	60	1/QA4	1	2	yes	
		2	CVA°8123STD	2	R134a	triangle	45	30	1199	54	2/QA3	2	2	yes	
HWF4812°E	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8104BTD	2	R134a	triangle	45	30	1350	61	1/QA5	1	2	yes	
		2	CVA°8143STD	2	R134a	triangle	45	30	1397	54	1/Q2-1/Q3	2	2	yes	
HWF5612°E	2	2	CDR°8103BTD	2	R134a	triangle	50	30	1657	61	1/Q5	1	2	yes	
		2	CVA°8123BTD	2	R134a	triangle	45	30	1553	62	2/QA3	2	2	yes	
		2	CVA°8163STD	2	R134a	triangle	45	30	1596	55	2/QA4	2	2	yes	
HWF6412°E	2	2	CDR°8103BTD	2	R134a	triangle	50	30	1657	61	1/Q5	1	2	yes	
		2	CVA°8124BTD	2	R134a	triangle	45	30	1660	62	2/QA3	2	2	yes	
		2	CVA°8164STD	2	R134a	triangle	45	30	1694	55	2/QA4	2	2	yes	
HWF2512AE	2	1	CDR°8084BTD	2	R134a	triangle	50	30	719	57	2/QA2	2	2	no	
		1	CVA°8123BTD	2	R134a	triangle	45	30	776	59	2/QA3	2	2	no	
		1	CVA°8163STD	2	R134a	triangle	43,6	30	724	52	2/QA4	2	2	no	
HWF2812AE	2	1	CDR°8103BTD	2	R134a	triangle	50	30	828	58	2/QA3	2	2	no	
		1	CVA°8124BTD	2	R134a	triangle	45	30	830	59	2/QA3	2	2	no	
		1	CVA°8163BTY	2	R134a	star	45	30	823	53	2/QA4	2	2	no	
HWF3212AE	2	1	CVA°8123BTD	2	R134a	Triangle	50	30	1035	59	2/QA3	2	2	no	
		1	CVA°8163BTD	2	R134a	Triangle	45	30	1013	60	2/QA4	2	2	no	
		2	CVA°8103STD	2	R134a	Triangle	45	30	983	50	1/Q2-1/Q3	2	2	yes	
		2	CVA°8143ETD	2	R134a	Triangle	45	30	998	41	1/Q3-1/Q4	2	2	yes	
HWF3612AE	2	1	CVA°8124BTD	2	R134a	triangle	50	30	1106	59	2/QA3	2	2	no	
		1	CVA°8164BTD	2	R134a	triangle	45	30	1103	60	2/QA4	2	2	no	
		2	CDR°8104BTY	2	R134a	star	45	30	1112	54	1/Q5	1	2	yes	
HWF4212AE	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8104BTD	2	R134a	triangle	45	30	1350	61	1/Q5	1	2	yes	
		2	CVA°8124STD	2	R134a	triangle	45	30	1270	54	2/QA3	2	2	yes	
HWF4812AE	2	1	CVA°8164BTD	2	R134a	triangle	50	30	1470	60	2/QA4	2	2	no	
		2	CVA°8104BTD	2	R134a	triangle	45	30	1437	61	1/Q2-1/Q3	2	2	yes	
		2	CVA°8143BTY	2	R134a	star	45	30	1442	55	1/Q3-1/Q4	2	2	yes	
HWF5612AE	2	2	CDR°8103BTD	2	R134a	triangle	50	30	1657	61	1/Q5	1	2	yes	
		2	CVA°8124BTD	2	R134a	triangle	45	30	1660	62	2/QA3	2	2	yes	
		2	CVA°8163STD	2	R134a	triangle	45	30	1596	55	2/QA4	2	2	yes	
HWF6412AE	2	2	CDR°8104BTD	2	R134a	triangle	50	30	1799	61	1/Q5	1	2	yes	
		2	CVA°8143BTD	2	R134a	triangle	45	30	1781	62	1/Q3-1/Q4	2	2	yes	
		2	CVA°8164STD	2	R134a	triangle	45	30	1705	55	2/QA4	2	2	yes	

*** Accessory to be provided in the order**

Sound pressure
measured in free field conditions, in cooling mode, at distance of 10m and direction factors = 2 in accordance with the ISO 3744 standard

Combinations

Condenserless unit	number of circuits of condenserless unit	number of remote condensers	Condenser	number of circuits of remote condenser	refrigerant	wiring connection	condensing temperature °C	ambient temperature °C	condenser capacity kW	Sound pressure dB(A)	control box type n°/Type	speed regulator n°	transducer n°	refrigerant pipeworks kit *	(request for) double coolig circuit *
WF2512°E	2	1	CDR°8084BTD	2	R134a	triangle	50	30	719	57	2/QA2	2	2	no	
		1	CVA°8123BTD	2	R134a	triangle	45	30	776	59	2/QA3	2	2	no	
		1	CVA°8163STY	2	R134a	star	46	30	693	46	2/QA4	2	2	no	
WF2812°E	2	1	CDR°8103BTD	2	R134a	triangle	50	30	828	58	2/QA3	2	2	no	
		1	CVA°8124BTD	2	R134a	triangle	45	30	830	59	2/QA3	2	2	no	
		1	CVA°8163STD	2	R134a	triangle	45	30	798	52	2/QA4	2	2	no	
WF3212°E	2	1	CVA°8123BTD	2	R134a	triangle	50	30	1035	59	2/QA3	2	2	no	
		1	CVA°8163BTD	2	R134a	triangle	45	30	1013	60	2/QA4	2	2	no	
		2	CDR°8103BTY	2	R134a	star	45	30	1036	54	1/Q5	1	2	yes	
WF3612°E	2	1	CVA°8124BTD	2	R134a	triangle	50	30	1106	59	2/QA3	2	2	yes	
		1	CVA°8164BTD	2	R134a	triangle	45	30	1103	60	2/QA4	2	2	yes	
		2	CDR°8104BTY	2	R134a	star	45	30	1112	54	1/Q5	1	2	yes	
WF4212°E	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8103BTD	2	R134a	triangle	45	30	1242	61	1/Q5	1	2	yes	
		2	CVA°8123STD	2	R134a	triangle	45	30	1199	54	2/QA3	2	2	yes	
WF4812°E	2	1	CVA°8164BTD	2	R134a	triangle	50	30	1470	60	2/QA4	2	2	no	
		2	CVA°8104BTD	2	R134a	triangle	45	30	1437	61	1/Q2 -1/Q3	2	2	yes	
		2	CVA°8143STD	2	R134a	triangle	45	30	1397	54	1/Q2 -1/Q3	2	2	yes	
WF5612°E	2	2	CDR°8103BTD	2	R134a	triangle	50	30	1657	61	1/Q5	1	2	yes	
		2	CVA°8123BTD	2	R134a	triangle	45	30	1553	62	2/QA3	2	2	yes	
		2	CVA°8163STD	2	R134a	triangle	45	30	1596	55	2/QA4	2	2	yes	
WF6412°E	2	2	CDR°8104BTD	2	R134a	triangle	50	30	1799	61	1/Q5	1	2	yes	
		2	CVA°8143BTD	2	R134a	triangle	45	30	1781	62	1/Q3-1/Q4	2	2	yes	
		2	CVA°8164STD	2	R134a	triangle	45	30	1694	55	2/QA4	2	2	yes	
WF2512AE	2	1	CDR°8103BTD	2	R134a	triangle	50	30	828	58	2/QA3	2	2	no	
		1	CVA°8123BTD	2	R134a	triangle	45	30	776	59	2/QA3	2	2	no	
		1	CVA°8163STD	2	R134a	triangle	43.6	30	724	52	2/QA4	2	2	no	
WF2812AE	2	1	CDR°8103BTD	2	R134a	triangle	50	30	828	58	2/QA3	2	2	no	
		1	CVA°8124BTD	2	R134a	triangle	45	30	830	59	2/QA3	2	2	no	
		1	CVA°8163BTY	2	R134a	star	45	30	828	53	2/QA4	2	2	no	
WF3212AE	2	1	CVA°8123BTD	2	R134a	triangle	50	30	1035	59	2/QA3	2	2	no	
		1	CVA°8164BTD	2	R134a	triangle	45	30	1103	60	2/QA4	2	2	no	
		2	CDR°8103BTY	2	R134a	star	45	30	1036	54	1/Q5	1	2	yes	
WF3612AE	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8103BTD	2	R134a	triangle	45	30	1242	61	1/Q5	1	2	yes	
		2	CVA°8123STD	2	R134a	triangle	45	30	1199	54	2/QA3	2	2	yes	
WF4212AE	2	1	CVA°8163BTD	2	R134a	triangle	50	30	1351	60	2/QA4	2	2	no	
		2	CDR°8104BTD	2	R134a	triangle	45	30	1350	61	1/Q5	1	2	yes	
		2	CVA°8124STD	2	R134a	triangle	45	30	1270	54	2/QA3	2	2	yes	
WF4812AE	2	1	CVA°8164BTD	2	R134a	triangle	50	30	1470	60	2/QA4	2	2	no	
		2	CVA°8104BTD	2	R134a	triangle	45	30	1437	61	1/Q2 -1/Q3	2	2	yes	
		2	CVA°8143BTY	2	R134a	star	45	30	1442	55	1/Q3-1/Q4	2	2	yes	
WF5612AE	2	2	CDR°8103BTD	2	R134a	triangle	50	30	1657	61	1/Q5	1	2	yes	
		2	CVA°8124BTD	2	R134a	triangle	45	30	1660	62	2/QA3	2	2	yes	
		2	CVA°8163STD	2	R134a	triangle	45	30	1596	55	2/QA4	2	2	yes	
WF6412AE	2	2	CDR°8104BTD	2	R134a	triangle	50	30	1799	61	1/Q5	1	2	yes	
		2	CVA°8143BTD	2	R134a	triangle	45	30	1781	62	1/Q3-1/Q4	2	2	yes	
		2	CVA°8164BTY	2	R134a	star	45	30	1730	56	2/QA4	2	2	yes	

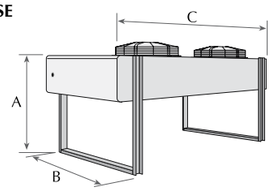
*** Accessory to be provided in the order**

Sound pressure
measured in free field conditions, in cooling mode, at distance of 10m and direction factors = 2 in accordance with the ISO 3744 standard

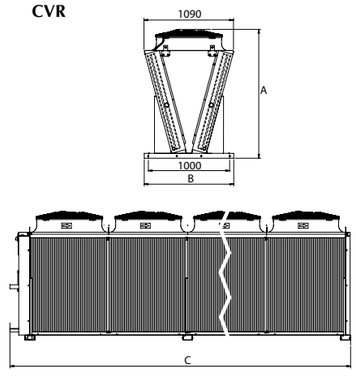
Technical and dimensional data

Model	Fans	Air flow rate	Connection IN	Connection OUT	Dimensions [mm]		
	[n°]	[m3/h]	[n°x ø mm]	[n°x ø mm]	A	B	C
CSEX3012BM	1	2500	1x16	1x16	820	560	760
CSEX3013BM	1	2200	1x16	1x16	820	560	760
CSEX3014SM	1	1400	1x18	1x18	820	560	760
CSEX3022SM	2	3000	1x18	1x18	820	560	1310
CSEX5013STY	1	3900	1X28	1X18	1060	773	1105
CSEX5013STD	1	5100	1X28	1X18	1060	773	1105
CSEX5014SM	1	4750	1x28	1x22	1060	773	1105
CSEX5014EM	1	3550	1x28	1x22	1060	773	1105
CSEX5014STD	1	4850	1X28	1X22	1060	773	1105
CSEX5015STD	1	4600	1X28	1X22	1060	773	1105
CSEX5023STY	2	7800	1X35	1x28	1060	773	2045
CSEX5024BTY	2	11000	1X35	1x28	1060	773	2045
CSEX5025ETY	2	3500	1X35	1x28	1060	773	2045
CSEX6013ETD	1	4450	1X28	1X22	1200	973	1340
CSEX6014STY	1	5000	1X28	1X22	1200	973	1340
CSEX6014STD	1	6500	1X28	1X22	1200	973	1340
CSEX6014BTY	1	7350	1X28	1X22	1200	973	1340
CSEX6014BTD	1	9150	1X28	1X22	1200	973	1340
CSEX6015BTD	1	8700	1X35	1X28	1200	973	1340
CSEX6023ETD	2	8900	1X35	1X28	1200	973	2500
CSEX6023STD	2	13500	1X35	1X28	1200	973	2500
CSEX6023BTD	2	19100	1X35	1X28	1200	973	2500
CSEX6023BTY	2	15500	1X35	1X28	1200	973	2500
CSEX6024BTD	2	18300	1X42	1X28	1200	973	2500
CSEX6024STY	2	10000	1X42	1X28	1200	973	2500
CSEX6025BTD	2	17400	1X42	1X28	1200	973	2500
CSEX6033BTD	3	28650	1X48	1X35	1200	973	3660
CSEX6033ETD	3	13350	1X48	1X35	1200	973	3660
CSEX6033STY	3	16050	1X48	1X35	1200	973	3660
CSEX6033BTY	3	28650	1X48	1X35	1200	973	3660
CSEX6034BTD	3	27450	1X48	1X35	1200	973	3660
CSEX6043STY	4	21400	1X48	1X35	1200	973	4820
CSEX6044BTD	4	36600	1X54	1X42	1200	973	4820
CSEX8023STD	2	28150			1340	1150	3543
CSEX8023BTY	2	30200			1340	1150	3543
CSEX8023STD	2	28150			1340	1150	3543
CSEX8023STY	2	21550			1340	1150	3543
CSEX8024BTY	2	28400			1340	1150	3543
CSEX8024BTD	2	36850			1340	1150	3543
CSEX8033ETD	3	25500			1340	1150	5208
CSEX8033STY	3	32650			1340	1150	5208
CSEX8034BTD	3	55650			1340	1150	5208
CSEX8043BTD	4	77500			1340	1150	3543
CSEX8063BTD	6	117000			1340	1150	5208
CSEX8063BTY	6	91200			1340	1150	5208
CSEX8044BTD	4	73700			1340	1150	3543
CSEX8064BTD	6	111300			1340	1150	5208
CSEX8064STY	6	60400			1340	1150	5208
CSEX9024BTD	2	38700	1X54	1X42	1530	1374	3063
CSEX9026BTD	2	35400	1X54	1X42	1530	1374	3063
CSEX9034BTD	3	58050	1X54	1X42	1530	1374	4493
CSEX9036BTD	3	53100	1X70	1X54	1530	1374	4493
CVRX8023BTD	2	47500	2x42	2x28	1590	1100	2270
CVRX8023BTY	2	37500	2x42	2x28	1590	1100	2270
CVRX8024BTD	2	46000	2x42	2x28	1590	1100	2270
CVRX8024BTY	2	36500	2x42	2x28	1590	1100	2270
CVRX8033BTD	3	72000	2x42	2x28	1590	1100	3210
CVRX8033STD	3	52500	2x42	2x28	1590	1100	3210
CVRX8033STY	3	41000	2x42	2x28	1590	1100	3210
CVRX8033BTY	3	57000	2x42	2x28	1590	1100	3210
CVRX8034BTD	3	68500	2x48	2x35	1590	1100	3210
CVRX8034STD	3	50500	2x48	2x35	1590	1100	3210

CSE



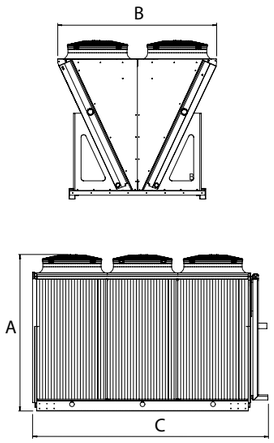
CVR



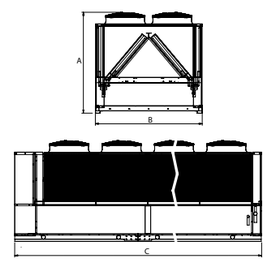
Technical and dimensional data

Model	Fans	Air flow rate	Connection IN	Connection OUT	Dimensions [mm]		
	[n°]	[m3/h]	[n°x ø mm]	[n°x ø mm]	A	B	C
CVRX8043BTD	4	96000	2x48	2x35	1590	1100	4180
CVRX8043STY	4	53500	2x48	2x35	1590	1100	4180
CVRX8044BTD	4	91000	2x48	2x35	1590	1100	4180
CVRX8043ETD	4	68200	2x48	2x35	1590	1100	4180
CVRX8053BTD	5	115000	2x60	2x42	1590	1100	5150
CVRX8053STD	5	86000	2x60	2x42	1590	1100	5150
CVRX8053ETD	5	55100	2x60	2x42	1590	1100	5150
CVRX8043BTY	4	74000	2x48	2x35	1590	1100	4180
CVRX8043ETY	4	44250	2x48	2x35	1590	1100	4180
CVRX8053STY	4	68000	2x48	2x35	1590	1100	4180
CVRX8054BTD	5	115000	2x60	2x42	1590	1100	5150
CVRX8054BTY	5	92000	2x60	2x42	1590	1100	5150
CVRX8054STY	5	66000	2x60	2x42	1590	1100	5150
CDRX8043STD	4	59000	2x48	2x35	2150	2160	2270
CDRX8064BTD	6	115700	2x54	2x42	2150	2160	3240
CDRX8083BTD	8	163600	2x60	2x48	2150	2160	4210
CDRX8083STD	8	117000	2x60	2x48	2150	2160	4210
CDRX8083ETD	8	71700	2x60	2x48	2150	2160	4210
CDRX8083STY	8	86000	2x60	2x48	2150	2160	4210
CDRX8084BTD	8	150000	2x60	2x48	2150	2160	4210
CDRX8084STD	8	107000	2x60	2x48	2150	2160	4210
CDRX8084STY	8	83000	2x60	2x48	2150	2160	4210
CDRX8103BTD	10	204500	2x70	2x54	2150	2160	5180
CDRX8103BTY	10	152000	2x70	2x54	2150	2160	5180
CDRX8103STD	10	145000	2x70	2x54	2150	2160	5180
CDRX8103ETD	10	89700	2x70	2x54	2150	2160	5180
CDRX8103STY	10	108000	2x70	2x54	2150	2160	5180
CDRX8104BTD	10	192700	2x70	2x54	2150	2160	5180
CDRX8104STD	10	140000	2x70	2x54	2150	2160	5180
CDRX8104STY	10	108000	2x70	2x54	2150	2160	5180
CDRX8104BTY	10	108000	2x70	2x54	2150	2160	5180
CVA°8103BTD	10	205000	2x89	2x64	2105	2200	8100
CVA°8104BTD	10	19000	2x89	2x64	2105	2200	8100
CVA°8123BTD	12	242000	2x89	2x64	2105	2200	8700
CVA°8123STD	12	170000	2x89	2x64	2105	2200	8700
CVA°8124BTD	12	222000	2x89	2x64	2105	2200	8700
CVA°8124STD	12	162000	2x89	2x64	2105	2200	8700
CVA°8143BTD	14	282000	2x89	2x64	2105	2200	8700
CVA°8143BTY	14	218000	2x89	2x64	2105	2200	8700
CVA°8143STD	14	202000	2x89	2x64	2105	2200	8700
CVA°8143ETD	14	122800	2x89	2x64	2105	2200	8700
CVA°8163STY	16	179300	2x89	2x64	2105	2200	11200
CVA°8163STD	16	230000	2x89	2x64	2105	2200	11200
CVA°8163BTD	16	324000	2x89	2x64	2105	2200	9950
CVA°8163BTY	16	145000	2x89	2x64	2105	2200	9950
CVA°8164BTD	16	296000	2x89	2x64	2105	2200	11200
CVA°8164BTY	16	234000	2x89	2x64	2105	2200	11200
CVA°8164STD	16	215000	2x89	2x64	2105	2200	11200

CDR



CVA



Cod.: SCONREUY.02 / 1111

AERMEC

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:

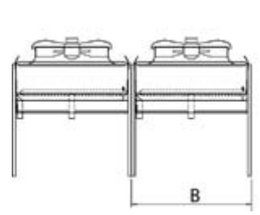
1 2 3 — Code
4 — Fluido
5 — ø[dm] fans
6 7 — n° fans
8 — n° rows
9 — motor Type
10 — Power supply
11 — Electrical connection

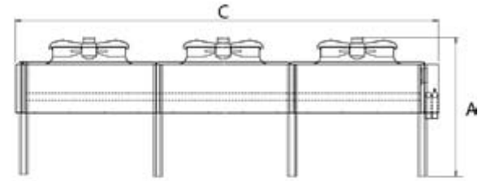
Code:
WTS-WTE-WTR-WTA-WDR
Fluido:
° - Acqua o acqua glicolata con PS max 6 bar
ø[dm] fans:
3 - 350
5 - 500
6 - 630
8 - 800
9 - 910
N° fans:
* - up 1 to 16
N° rows:
* - up 1to 6

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

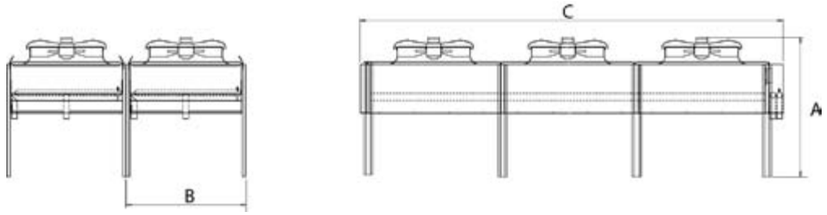




Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm] A	B	C
WTE°0312BM	Monophase	3	1	2	2.500	4,6	36	820	620	760
WTE °0313BM	Monophase	3	1	3	2.200	6	36	820	620	760
WTE°0314BM	Monophase	3	1	4	2400	7,4	36	820	620	760
WTE°0322BM	Monophase	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
WTE°0524 BT	triangle	5	2	4	14800	42	51	1060	833	2045

The performance refers to the following conditions:
♪ 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



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:
♪ 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%

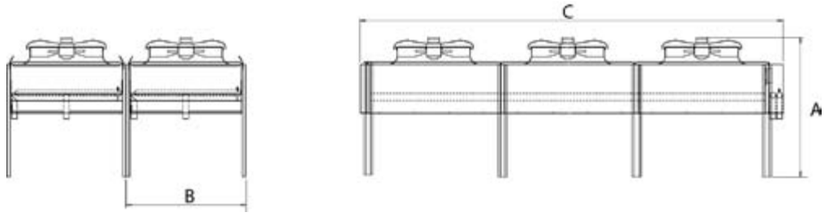
Model WTE	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTE°0534BM	Monophase	5	3	4	21090	61	50	1060	833	2985
WTE°0535BM	Monophase	5	3	5	20235	67	50	1060	833	2985
WTE°0543BM	Monophase	5	4	3	29440	69	51	1060	833	3925
WTE°0544BM	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
WTE°0615ST	triangle	6	1	5	6200	24	42	1200	1033	1340

The performance refers to the following conditions:
♪ 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



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:
♪ 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%

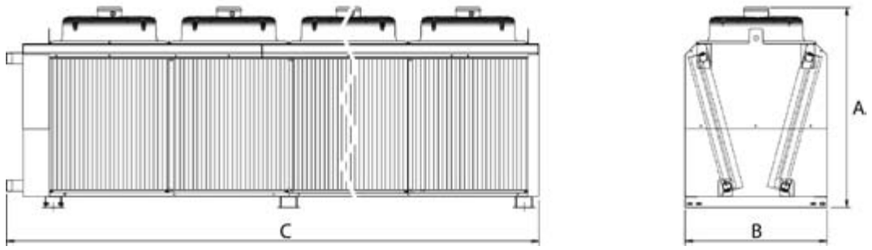
Technical and dimensional data

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:
♪ 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



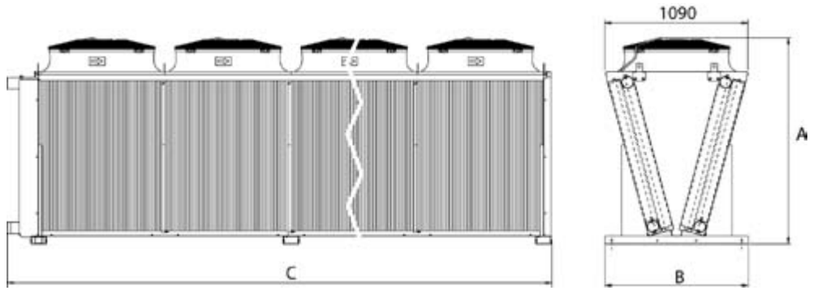
Model WTS	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTS°0523BT	triangle	5	2	3	15.800	46	51	1065	780	1610
WTS°0524BT	triangle	5	2	4	15.200	51	51	1065	780	1610
WTS°0533BT	triangle	5	3	3	23700	69	53	1065	780	2265
WTS°0534BT	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:
♪ 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

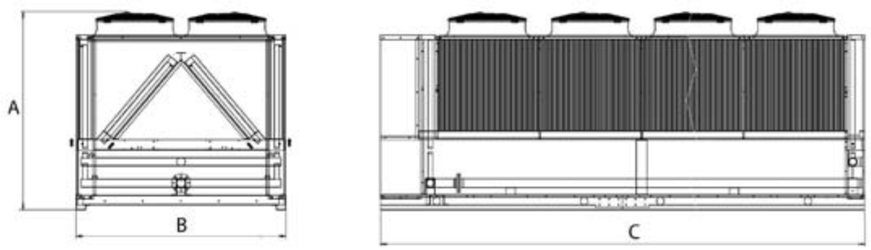


Model WTR	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTR°0823BT	triangle	8	2	3	46.000	131	51	1590	1100	2270
WTR°0824BT	triangle	8	2	4	45.000	150	51	1590	1100	2270
WTR°0833BT	triangle	8	3	3	70000	204	53	1590	1100	3210
WTR°0834BT	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:
♪ 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:
♪ 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%

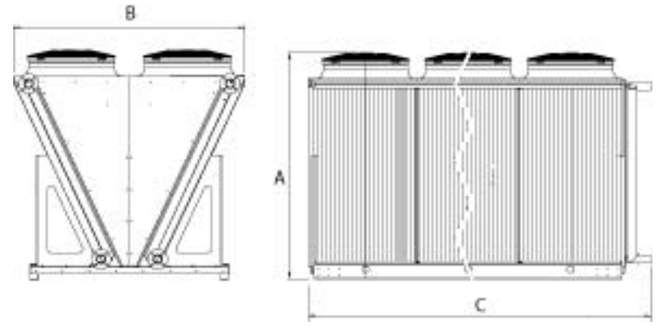
Technical and dimensional data

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:
♪ 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:
♪ 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

DMP

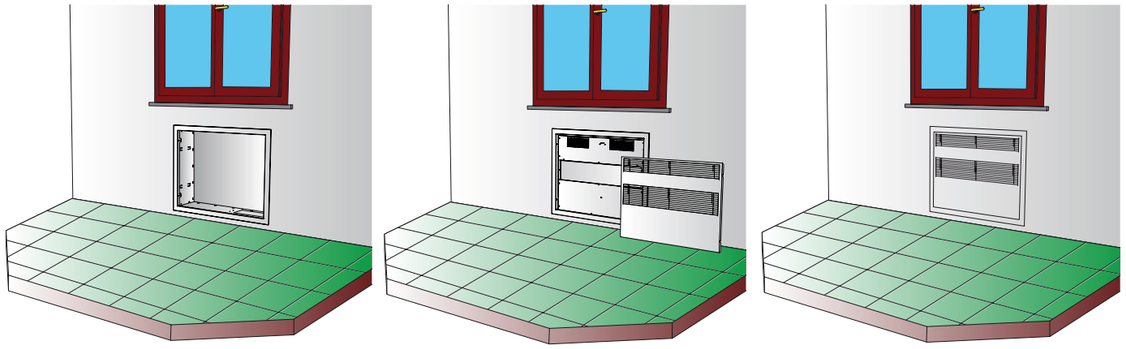
Recessed dehumidifier for floor systems

R134a





White:
front panel: RAL 9010



Features

- Main features:
- vertical installation recessed in the wall;
- silenced functioning;
- small electric consumption;
- high dehumidification efficiency.

The **DMP** dehumidifiers can be integrated perfectly in residential and tertiary environments with:
- floor systems;

- **Components:**
DMP 20: Monobloc dehumidifier unit, recessed inside the formwork.
- electrostatically pre-charged air filter;
- condensate drip tray;
- hermetic compressor assembled on rubber anti-vibration mounts;
- condensing and evaporating coils realised in copper pipes and aluminium louvers;
- pre-cooling coil: to improve the dehumidification efficiency of the unit;
- post-cooling coil: to control the temperature of the outlet air and send thermally neutral air to the room;
- centrifugal flow fan with uneven pitch rotors for silent functioning;
- adjustment circuit board with remote control panel.
- Refrigerant gas: R134a.

Accessories

DMP 20GL: OBLIGATORY ACCESSORY
-Front closure panel with external frame: realised in polyurethane powder painted galvanised steel (colour RAL 9010). Made up from a frame and panel with air recovery and flow grid in anodised aluminium.
-Formwork: In galvanised steel, it allows unit installation in niche. The formwork has appropriate fins for correct fixing to the wall and is prepared with openings for electric and hydraulic connections;

In the winter season the DMP dehumidifier can be used to accelerate the temperature of the rooms heated by the radiant system reaching normal working conditions.

Technical data

Mod.		DMP 20
Nominal dehumidification capacity (1)	l/24h	20
Nominal input power (1)	W	340
Nominal input current (1)	A	2,3
Dehumidification capacity (2)	l/24h	49
Input power (2)	W	390
Heating capacity produced - normal working conditions in heating mode (3)	W	1010
Input power (3)	W	25
Maximum current absorbed	A	2,5
Peak current	A	4
Nominal water flow rate	l/h	170
Pressure drop	kPa	7
	m^3/h (min.)	200
	Air flow rate	300
	m^3/h (max.)	380
♪ Sound Pressure	dB [A]	33
Weight	kg	36

Power supply voltage = 230V/1/50Hz.

♪ Sound pressure measured in free field with directionality factor Q=2 at a distance of 1 m (minimum fan speed).
In compliance with the ISO 3746

The performance refers to the following conditions:

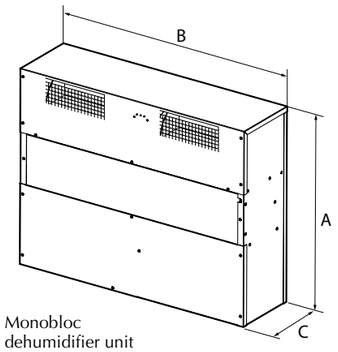
Dehumidification
(1) = Nominal conditions (min. fan speed)
- Room air temperature: 26°C
- Relative humidity: 65%
- Water input temperature: 15°C

(2) = Maximum conditions (min. fan speed)
- Room air temperature: 35°C
- Relative humidity: 80%
- Water input temperature: 15°C

Heating
(3) = Rapid heating at normal conditions (min. fan speed)
- Room air temperature: 15°C
- Water input temperature: 35°C

Dimensional data (mm)

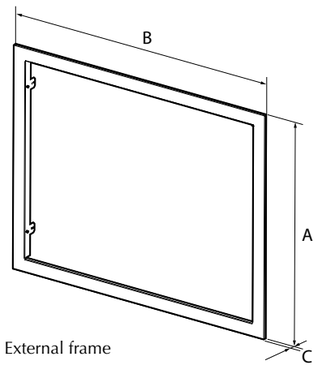
DMP 20



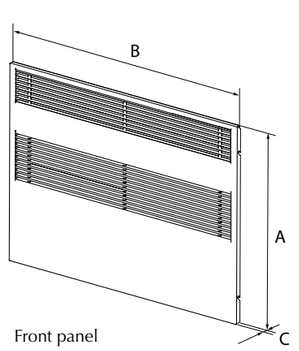
Monobloc dehumidifier unit

		DMP 20	DMP 20 GL		
		Monobloc dehumidifier unit	External frame	Front panel	Formwork
Height	[mm] (A)	590	678	596	606
Width	[mm] (B)	750	843	761	771
Depth	[mm] (C)	210	8	18	227

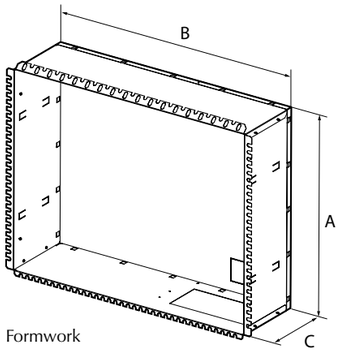
DMP 20GL



External frame



Front panel



Formwork

Cod.: SDMPUY.01 / 0903

FW-R

Water-cooled air conditioners with capacities from 3 up to 4.5 kW

R407C



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

- BR: Armoured heating element with safety thermostat.
- BVR: Single row hot water coil.

Compatibility of accessories		
FW	**137 R**	**167 R**
BR 26	✔	✔
BVR 1	✔	✔

Technical data

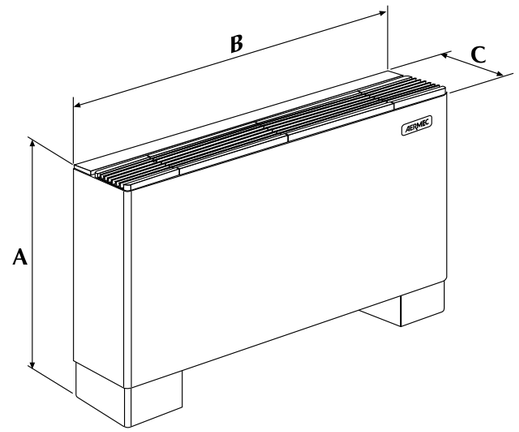
Mod.	FW	137 R	167 R
Cooling capacity	W (max.)	3000	4500
	W (med.)	2640	3750
	W (min.)	2120	3010
Input power	W	870	1250
Input current	A	4,1	6
Water coil heating capacity	W	4350	5200
Water flow rate at coil	l/h	600	600
Water coil pressure drops	kPa	12,6	12,6
Electric heating capacity	W	1200	1200
Fans	n.	2	2
Air flow rate	m3/h (max.)	470	690
	m3/h (med.)	390	525
	m3/h (min.)	270	375
Fan 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 16°C	l/h	150	210
Condenser pressure drops	kPa	3,9	6,6
Refrigerant charge	kg	0,95	1,05
Peak current	A	23	33,5
Water connections	ø	1/2″	1/2″

Power supply = 230V ~ 50Hz.

Performance values refer to the following conditions:
♪ Sound pressure measured in an 85 m3 semi-reverberant test chamber with reverberation time Tr = 0.5s.
Cooling:
- room air temperature 27 °C D.B. ; 19 °C W.B.
- maximum speed

Heating:
- room air temperature 20 °C
- water inlet temperature 70 °C
- maximum speed

Dimensions (mm)



		FW 137 R	FW 167 R
Height	A	723	723
Width	B	1121	1121
Depth	C	242	242
Weight		63	67

Cod.: SFWUY.04 / 0009

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