

AERMEC







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 bacteria.

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 technological. 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.

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3 UNITS FOR SYSTEMS

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3 UNITS FOR SYSTEMS

AIR HANDLING UNITS

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NEW RTX - Air/Air for external installation with plug fans and scroll compressors. Cooling capacities 51÷132kW - Heating capacities 50÷134kW	348
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WATER-COOLED PACKAGED AIR CONDITIONERS

MEC-W - Water-cooled packaged air conditioners with radial fans and capacities 11÷55kW	368
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PRECISION AIR CONDITIONING

NEW DAS - Precision Air Conditioning units air condensed direct expansion, water condensed direct expansion, cooled water. Cooling capacity 6÷65kW.....	370
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COMPONENTS FOR AIR CONDITIONING SYSTEMS

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4 ROOM AIR CONDITIONERS

GREEN LINE

SI - Split system air conditioner and heat pump. DC Inverter Technology - Air ioniser standard. Wall mounted monosplit. Capacity 2,6÷6,45kW	412
HWI - Split system air conditioner and heat pump DC Inverter Technology - Air ioniser standard - Wall mounted monosplit with capacity 2,6÷6,45 kW	414
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DXE - Heat pump with two air-cooled sections. Ducted horizontal installation. Power 20÷39,5kW.....	420
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MDW - Multisplit heat pumps with heat recovery for hot domestic water production Variable refrigerant flow system (VRF) with inverter. Power input 10÷16kW	426
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BLUE LINE

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DEHUMIDIFIER

Smuffo	444
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WATER COOLED CONDENSING UNIT

CWX - Cooling only operation, internal installation. Capacity 3,5÷6,7kW	446
FW-R - Water-cooled air conditioners with capacities 2,9÷4,0kW	450

AERMEC



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 climatiseurs to date.

Aermec fancoils boast all these features and more.

FCX Fan coils Universal and floor installation



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

Variable Multi Flow®

VMF



- ☐ housing: RAL 9002
- ☐ head and feet: RAL 7044

Features

- Available in 16 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, 36, 42, 44, 50, 54, 56, 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, 36, 42, 50, 56, 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

VERSION	AVAILABLE SIZES															
FCX A	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX AS	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX ACT	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX APC	-	22	24	32	34	36	42	44	50	54	56	62	64	82	84	-
FCX B	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX U	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX UA	17	22	24	32	34	36	42	44	50	54	56	-	-	-	-	-
FCX UE	-	22	-	32	-	-	42	-	50	-	-	62	-	82	-	102

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 FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected to the panel FMT21 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.
- **VCF_X4:** The valve kits are designed for fan coil units with single coil, installed in a 4 pipe system with the "Cooling" and "Heating" circuits totally separated. The kit consists of 2 valves of 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. VCF1X4L Valve kit for left hand connection fan coil units. VCF1X4R Valve kit for right hand connection fan coil units. Power supply: 230V ~ 50Hz.
- **ZX:** Feet for floor-standing installations for A-AS-ACT-APC models.
- **Control panels⁽¹⁾ and VMF System⁽²⁾:** the characteristics are described on the appropriate card.

		FCX Fan Coil																
Accessories		Size															Versions	
		17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102	
FMT10 ⁽¹⁾ • FMT21 ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
KTLM ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PTI ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA (62 - 102)
PX ⁽¹⁾ • PX2 ⁽¹⁾ • PX2C6 ^{(1)****}		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXB ⁽¹⁾ • PXA ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXAE ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXAR ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
TF1 ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
TPF ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
WMT05 ⁽¹⁾ • WMT06 ⁽¹⁾ • WMT10 ⁽¹⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
VMF-E4 ⁽²⁾ • VMF-E4D ⁽²⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
VMF-E2 ⁽²⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA (62 - 102)
VMF-E0 ⁽²⁾ • VMF-E1 ⁽²⁾		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
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	•																AS-B-U-UA
	122		•															AS-B-U-UA
	132				•		•											AS-B-U-UA
	142							•		•		•						AS-B-U-UA
	162												•		•		•	AS-B-U-UA
DSC4*		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	A-AS-ACT-APC-B-U-UA-UE
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	
RX**	17	•																AS-B-U-UA
	22		•															AS-B-U-UA-UE
	32				•		•											AS-B-U-UA-UE
	42							•										AS-B-U-UA-UE
	52									•		•						AS-B-U-UA-UE
	62												•		•		•	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
VCF *****	1X4L - 1X4R	•	•		•													AS-B-U-UA
	2X4L - 2X4R			•		•	•	•	•	•	•	•						AS-B-U-UA
	3X4L - 3X4R												•	•	•	•	•	AS-B-U-UA
	41-4124**	•	•		•													AS-ACT-APC-B-U-UA
	42-4224**			•		•	•	•	•	•	•	•						AS-ACT-APC-B-U-UA
	43-4324**												•	•	•	•	•	AS-ACT-APC-B-U-UA
	44-4424**	•***	•***		•***		•***	•***		•***		•***			•	•	•	AS-B-U-UA
45-4524**												•***		•***		•***	AS-B-U-UA	
VCFD	1-124**	•	•		•													AS-ACT-APC-B-U-UA
	2-224**			•		•	•	•	•	•	•	•						AS-ACT-APC-B-U-UA
	3-324**												•	•	•	•	•	AS-ACT-APC-B-U-UA
	4-424**	•***	•***		•***		•***	•***		•***		•***	•***		•***		•***	AS-B-U-UA
ZX	5	•	•	•	•	•	•	•	•	•	•	•						A-AS-ACT-APC
	6												•	•	•	•	•	A-AS-ACT-APC

* = The DSC4 accessory is not compatible with AMP and BC4_5_6 accessories.

The DSC4 accessory is compatible with the installation brackets AMP20.

** = 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	Vel.	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
2 PIPE SYSTEM CONFIGURATION																		
Heating capacity (70°C)	(1)	W	H	2490	3400	3950	4977	5851	6151	7400	8600	8620	10100	9648	12919	14300	15140	17019
	(1)	W	M	2070	2700	3200	4078	4847	5048	6414	6930	7531	8759	8434	10942	11501	13349	15242
	(1)	W	L	1610	1915	2200	3390	3852	4181	5116	5200	5419	6241	6056	8327	8499	10771	12558
Water flow rate	(1)	l/h	H	218	298	347	436	513	539	649	754	756	886	846	1133	1254	1328	1490
	(1)	l/h	M	182	237	281	357	425	442	563	608	660	768	740	960	1008	1170	1337
	(1)	l/h	L	141	168	193	297	338	366	449	456	475	547	531	730	745	944	1101
Pressure drop	(1)	kPa	H	3	6	6	8	6	5	7	5	7	5	6	5	4	6	5
	(1)	kPa	M	2	4	5	7	5	5	5	4	6	5	5	4	4	5	4
	(1)	kPa	L	1	2	4	6	5	4	4	4	5	4	4	4	4	4	5
Heating capacity (50°C)	(2)	W	H	1360	1770	2320	3160	3550	3800	3460	5250	4380	6100	5380	5490	7810	7990	9480
	(2)	W	M	1200	1510	1840	2450	2860	2950	3410	4130	3940	5220	4840	5190	6170	6730	8550
	(2)	W	L	990	1130	1250	2060	2220	2480	2600	3060	3000	3650	3680	3870	4510	5300	6980
Water flow rate	(2)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1479
	(2)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259
	(2)	l/h	L	112	144	174	267	303	311	358	463	432	533	475	554	674	738	979
Pressure drop	(2)	kPa	H	2	6	2	16	5	9	12	64	35	20	22	16	10	14	26
	(2)	kPa	M	2	5	2	12	4	7	9	40	28	16	20	10	8	16	19
	(2)	kPa	L	1	2	1	7	3	6	14	24	19	9	15	10	5	12	13
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)																		
Heating capacity (70°C)	(3)	W	H	1400	1770	-	2850	-	-	3460	-	4380	-	-	5490	-	6410	-
	(3)	W	M	1200	1510	-	2450	-	-	3410	-	3940	-	-	4700	-	6300	-
	(3)	W	L	990	1130	-	2030	-	-	2660	-	3220	-	-	3870	-	5300	-
Water flow rate	(3)	l/h	H	120	155	-	245	-	-	303	-	384	-	-	482	-	562	-
	(3)	l/h	M	103	131	-	211	-	-	299	-	346	-	-	412	-	553	-
	(3)	l/h	L	85	99	-	175	-	-	233	-	282	-	-	339	-	465	-
Pressure drop	(3)	kPa	H	3	6	-	16	-	-	21	-	35	-	-	16	-	14	-
	(3)	kPa	M	2	5	-	12	-	-	22	-	28	-	-	12	-	16	-
	(3)	kPa	L	2	3	-	8	-	-	14	-	19	-	-	10	-	12	-
COOLING MODE for all configuration																		
Total cooling capacity	(4)	W	H	1000	1500	1730	2400	2800	2800	3400	4450	4190	4970	4600	4860	6350	6910	8600
	(4)	W	M	840	1220	1370	1840	2280	2150	2780	3590	3511	4320	3850	4370	5210	5000	7320
	(4)	W	L	650	840	1010	1550	1760	1810	2080	2690	2509	3100	2760	3220	3920	4290	5770
Sensible cooling capacity	(4)	W	H	830	1240	1380	1900	2130	2200	2760	3300	3000	3540	3500	3980	5030	5680	7580
	(4)	W	M	690	1000	1090	1570	1720	1820	2230	2640	2540	3060	3070	3300	4100	3780	4870
	(4)	W	L	510	670	760	1110	1250	1280	1660	1960	1790	2170	2120	2440	3060	2970	3800
Water flow rate	(4)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1479
	(4)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259
	(4)	l/h	L	112	144	174	267	303	311	358	463	432	533	475	554	674	738	979
Pressure drop	(4)	kPa	H	3	6	3	28	9	28	14	77	19	26	38	17	13	22	30
	(4)	kPa	M	2	5	2	13	5	17	10	48	13	21	28	12	9	23	22
	(4)	kPa	L	1	3	1	14	4	13	6	29	8	12	15	7	6	11	15
Air flow rate		m ³ /h	H	200	290	290	450	450	600	600	720	720	720	920	920	1140	1140	1300
		m ³ /h	M	160	220	220	350	350	460	460	600	600	600	720	720	930	930	1120
		m ³ /h	L	110	140	140	260	260	330	330	400	400	400	520	520	700	700	900
Fans		type																
		n°																
Absorbed power		W	H	19	25	33	44	48	44	57	97	67	76	67	82	91	106	131
		W	M	29	22	29	33	34	33	43	61	46	52	46	61	60	80	100
		W	L	35	19	25	25	28	25	30	5	34	38	34	40	38	59	80
Max. input current	(A)			0,16	0,12	0,25	0,21	0,45	0,21	0,28	0,51	0,35	0,36	0,35	0,4	0,48	0,49	0,62
	(5)	dB(A)	H	45	49	51	48	44	48	51	55	56	56	56	57	57	61	66
	(5)	dB(A)	M	38	42	46	41	41	41	44	50	51	53	51	51	51	56	61
Sound pressure level	(5)	dB(A)	L	31	31	35	34	36	34	39	41	42	44	42	44	44	51	56
	(6)	dB(A)	H	36,5	40,5	42,5	39,5	35,5	39,5	42,5	46,5	47,5	47,5	47,5	48,5	48,5	52,5	57,5
	(6)	dB(A)	M	29,5	33,5	37,5	32,5	32,5	32,5	35,5	41,5	42,5	44,5	42,5	42,5	42,5	47,5	52,5
Water content	(6)	dB(A)	L	22,5	22,5	26,5	25,5	27,5	25,5	30,5	32,5	33,5	35,5	33,5	33,5	35,5	42,5	47,5
		l		0,58	0,79	1	1,11	1,5	1,5	1,48	1,9	1,48	1,9	1,9	2,52	3,4	2,52	3,4
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"	-	3/4"	-
		ø (1R)		1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-
Speed connected			H	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3
			M	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2
			L	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1
Power supply										230V/1/50Hz								

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

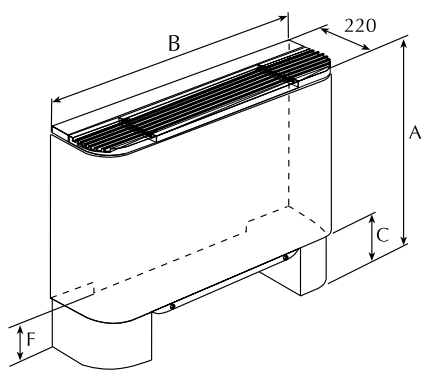
(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

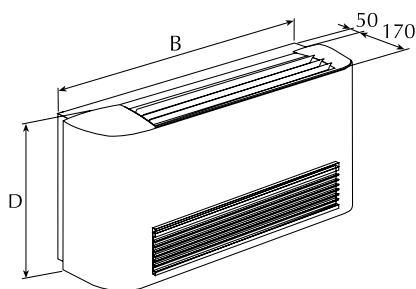
(6) **Sound pressure level** (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

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

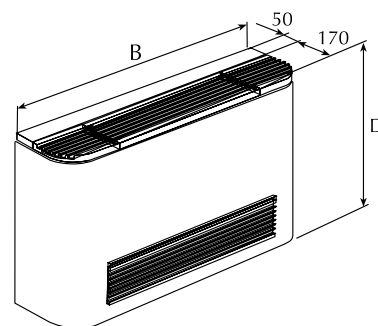
Dimensions (mm)



FCX A
FCX AS
FCX ACT
FCX APC



FCX U 17 - 22 - 32 - 36 - 42 - 50 - 56
FCX U 24 - 34 - 44 - 54
FCX UE 22 - 32 - 36 - 42 - 50 - 56



FCX B
FCX UA 17 - 22 - 32 - 36 - 42 - 50 - 56
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 / 36	42 / 44	50 / 54 / 56	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 / 36	42 / 44	50 / 54 / 56	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 / 36	42 / 44	50 / 54 / 56
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 / 36	42 / 44	50 / 54 / 56	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

FCXI

INVERTER
TECHNOLOGY



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

Variable Multi Flow

VMF

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



FCXI AS



FCXI P



FCXI U

□ 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

Versions:

FCXI AS: with tall cabinet

FCXI U: with universal cabinet for floor/ ceiling installation

FCXI P: without cabinet for ceiling installation

FCXI PBV: with 3 row coil +1 in a single shoulder, standard connections (left)

FCXI PBVD: with 3 row coil +1 in a single shoulder, standard connections (right)

For versions with 3 row +1 battery, the battery is not reversible specify the side of the attacks at the time of the order.

- Compatible with VMF System
- 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

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).
- **VCF_X4:** The valve kits are designed for fan coil units with single coil, installed in a 4 pipe system with the "Cooling" and "Heating" circuits totally separated. The kit consists of 2 valves of 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. VCF1X4L Valve kit for left hand connection fan coil units. VCF1X4R Valve kit for right hand connection fan coil units. Power supply: 230V ~ 50Hz.
- **ZX:** Feet for floor installations for FCXI AS models.

		FCX										
		20I	24I	30I	34I	40I	44I	50I	54I	80I	84I	
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	(1)(2)	•	•	•	•	•	•	•	•	•	•	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

(1)The DSC4 accessory is not compatible with AMP and BC4_5_6_8_9 accessories. The DSC4 accessory is compatible with AMP20 accessory.

(2) The DSC4 and the VMF-system can not be installed simultaneously on the same fancoil

		FCX										
		20I	24I	30I	34I	40I	44I	50I	54I	80I	84I	
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
	1X4L - 1X4R (3)	•	•	•	•							AS - U - P
	2X4L - 2X4R (3)					•	•	•	•			AS - U - P
	3X4L - 3X4R (3)									•	•	AS - U - P
VCF	41 - 4124 (3)(4)	•	•	•	•							AS - U - P
	42 - 4224 (3)(4)					•	•	•	•			AS - U - P
	43 - 4324 (3)(4)									•	•	AS - U - P
	44 - 4424 (3)(4)(5)	•		•		•		•				AS - U - P
VCFD	45 - 4524 (3)(4)									•		AS - U - P
	1 - 124 (3)	•	•	•	•							AS - U - P
	2 - 224 (3)					•	•	•	•			AS - U - P
	3 - 324 (3)									•	•	AS - U - P
ZX	4 - 424 (3)(5)	•		•		•		•		•		AS - U - P
	5	•	•	•	•	•	•	•	•			AS
	6									•	•	AS
	7	•	•	•	•	•	•	•	•			P
	8									•	•	P

(3) The BC4 accessory is not available for models fitted with VCF / VCFD valve.

(4) VCF4124-4224-4324-4424-4524 / VCFD124-224-324-424 are 24V

(5) Only for accessory coil BV 1R.

Technical data

Mod.		FCX	Vel.	20I	24I	30I	34I	40I	44I	50I	54I	80I	84I
2 PIPE SYSTEM CONFIGURATION													
Heating capacity (70°C)	(1)	W	H	3400	3950	4977	5851	7400	8600	8620	10100	15140	17100
	(1)	W	M	2700	3200	4078	4847	6414	6930	7531	8759	13349	14421
	(1)	W	L	1915	2200	3390	3852	5116	5200	5419	6241	10771	11198
Water flow rate	(1)	l/h	H	298	347	436	513	649	754	756	886	1328	1490
	(1)	l/h	M	237	281	358	425	563	608	660	768	1170	1265
	(1)	l/h	L	168	193	297	338	449	456	475	547	944	982
Pressure drop	(1)	kPa	H	5	6	15	6	15	5	15	5	6	5
	(1)	kPa	M	3	5	10	5	11	4	12	5	5	4
	(1)	kPa	L	2	4	7	5	8	4	6	4	4	4
Heating capacity (50°C)	(2)	W	H	2100	2320	3160	3550	4240	5250	4900	6100	7990	17100
	(2)	W	M	1680	1840	2570	2860	3530	4130	4240	5220	6730	14421
	(2)	W	L	1160	1250	2060	2220	2600	3060	3000	3650	5210	11198
Water flow rate	(2)	l/h	H	258	298	380	482	585	765	721	855	1276	1490
	(2)	l/h	M	210	236	316	392	478	617	604	743	924	1265
	(2)	l/h	L	144	174	246	303	358	463	432	533	738	982
Pressure drop	(2)	kPa	H	6	2	15	5	12	64	14	20	19	5
	(2)	kPa	M	4	2	11	4	9	40	12	16	14	4
	(2)	kPa	L	2	1	7	3	5	24	7	9	9	4
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)													
Heating capacity (70°C)	(3)	W	H	1751	-	2826	-	3460	-	4223	-	01±9	-
	(3)	W	M	1554	-	2496	-	3038	-	4003	-	00£9	-
	(3)	W	L	1210	-	2112	-	2560	-	3228	-	5300	-
Water flow rate	(3)	l/h	H	154	-	248	-	303	-	370	-	562	-
	(3)	l/h	M	136	-	219	-	266	-	351	-	553	-
	(3)	l/h	L	106	-	185	-	225	-	283	-	465	-
Pressure drop	(3)	kPa	H	2	-	27	-	22	-	34	-	14	-
	(3)	kPa	M	2	-	21	-	17	-	31	-	16	-
	(3)	kPa	L	1	-	16	-	13	-	21	-	12	-
COOLING MODE for all configuration													
Total cooling capacity	(4)	W	H	1500	1730	2210	2800	3400	4450	4190	4970	7420	8600
	(4)	W	M	1220	1370	1840	2280	2780	3590	3510	4320	5370	7320
	(4)	W	L	840	1010	1430	1760	2080	2690	2510	3100	4290	5770
Sensible cooling capacity	(4)	W	H	1240	1380	1750	2130	2760	3300	3000	3540	5680	5780
	(4)	W	M	1000	1090	1440	1720	2230	2640	2540	3060	4300	4870
	(4)	W	L	670	760	1100	1250	1660	1960	1790	2170	3370	3800

Mod.	FCX	Vel.	20I	24I	30I	34I	40I	44I	50I	54I	80I	84I
Water flow rate	(4)	l/h	H	258	298	380	482	585	721	855	1276	1479
	(4)	l/h	M	210	236	316	392	478	617	743	924	1259
	(4)	l/h	L	144	174	246	303	358	463	533	738	992
Pressure drop	(4)	kPa	H	6	3	17	9	14	77	19	26	30
	(4)	kPa	M	5	2	13	5	10	48	13	21	22
	(4)	kPa	L	3	1	9	4	6	29	8	12	15
Air flow rate		m ³ /h	H	290	290	450	450	600	600	720	720	1140
		m ³ /h	M	220	220	350	350	460	460	600	600	930
		m ³ /h	L	140	140	260	260	330	330	400	400	700
Fans		type										
		n°										
Absorbed power		W	H	12	12	10	10	17	17	37	37	80
		W	M	8	8	10	10	9	9	20	20	40
		W	L	5	5	10	10	6	6	8	8	30
Max. input current	(A)			0,12	0,12	0,21	0,21	0,28	0,28	0,35	0,35	0,49
Sound power level	(5)	dB(A)	H	50	51	48	44	51	55	56	56	62
	(5)	dB(A)	M	43	46	41	41	44	50	51	53	57
	(5)	dB(A)	L	31	35	34	36	37	41	42	44	50
Sound pressure level	(6)	dB(A)	H	41,5	42,5	39,5	35,5	42,5	46,5	47,5	53,5	52,5
	(6)	dB(A)	M	34,5	37,5	32,5	32,5	35,5	41,5	42,5	44,5	48,5
	(6)	dB(A)	L	22,5	26,5	25,5	27,5	28,5	32,5	33,5	35,5	41,5
Water content	l			0,79	1	1,11	1,5	1,48	1,9	1,48	1,9	2,52
Coil connections		ø (4R)		-	3/4"	-	3/4"	-	3/4"	-	3/4"	-
		ø (3R)		1/2"		1/2"		3/4"		3/4"		3/4"
		ø (1R)		1/2"		1/2"		1/2"		1/2"		1/2"
Speed connected		H		5,4V	5,4V	5V	5V	5,1V	5,1V	6,1V	6,1V	8V
		M		4,2V	4,2V	3,8V	3,8V	3,9V	3,9V	5,1V	5,1V	6,5V
		L		2,6V	2,6V	2,8V	2,8V	2,8V	2,8V	3,4V	3,4V	5,1V
Power supply												

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

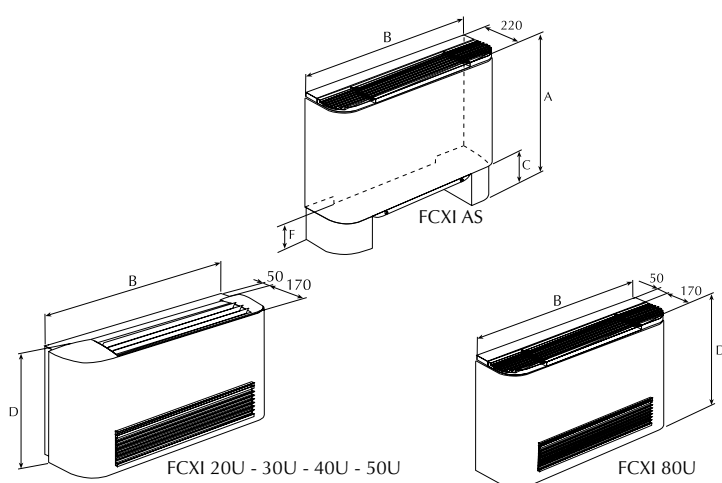
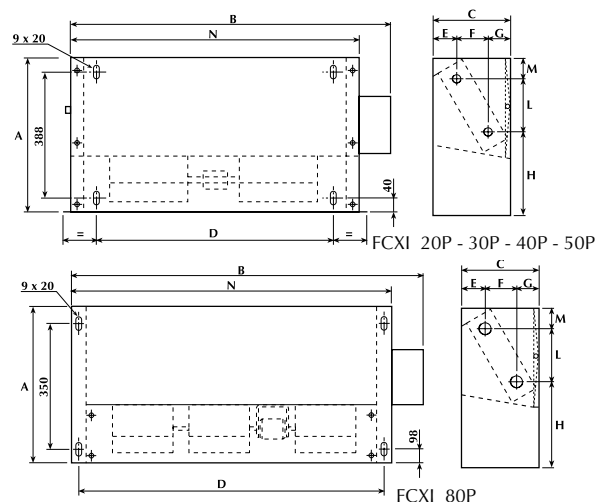
(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

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

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

Dimensions (mm)



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	B	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

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. +39 04 42 63 31 11 - Telefax +39 044 29 35 66
www.aermec.com

FCX P Fan coils Duct installation



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

Variable Multi Flow

VMF



Features

-- Vertical and horizontal installation:

FCX P: wall-mounted model without cabinet

FCX PPC: 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: with boosted motor

6-speed (3 of which can be selected) up 22 to 82

7-speed (3 of which can be selected) up 62 to 82

FCX PBV: with 3 row coil +1 in a single shoulder, standard connections (left)

FCX PBVD: with 3 row coil +1 in a single shoul-

der, standard connections (right)

FCX POBV: boosted and with 3 row coil +1 in a single shoulder, standard connections (left)

FCX POBVD: boosted and with 3 row coil +1 in a single shoulder, standard connections (right)

For versions with 3 row +1 battery, the battery is not reversible specify the side of the attacks at the time of the order.

- Vertical installation:

FCX PV: wall-mounted model without cabinet

- Versions with 3/4-row coil

- 3-speed ventilating unit

- 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

VERSION	AVAILABLE SIZES															
	Versions with 3 row coil										Versions with 4 row coil					
FCX_P	17	22	32	36	42	50	56	62	82	102	24	34	44	54	64	84
FCX_PV	17	22	32	36	42	50	56	62	82	102	24	34	44	54	64	84
FCX_PO	-	22	32	36	42	50	56	62	82	-	24	34	44	54	64	84
FCX_PE	-	22	32	-	42	50	-	62	82	102	-	-	-	-	-	-
FCX_PPC	-	22	32	36	42	50	56	62	82	-	24	34	44	54	64	84
FCX_PBV	17	22	32	36	42	50	56	62	82	102	-	-	-	-	-	-
FCX_PBVD	17	22	32	36	42	50	56	62	82	102	-	-	-	-	-	-
FCX_POBV	-	22	32	36	42	50	56	62	82	-	-	-	-	-	-	-
FCX_POBVD	-	22	32	36	42	50	56	62	82	-	-	-	-	-	-	-

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.
When mounted in place, you must specify the connection side
- **CHF:** VentilCassaforma is a galvanised metal template that allows you to create a space directly in the wall for housing the fan coil. (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:** External probe accessory SWA (length L = 6m). It detects the temperature of air or water depending on its location in the plant
- **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.
- **VCF_X4:** The valve kits are designed for fan coil units with single coil, installed in a 4 pipe system with the "Cooling" and "Heating" circuits totally separated. The kit consists of 2 valves of 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. VCF1X4L Valve kit for left hand connection fan coil units. VCF1X4R Valve kit for right hand connection fan coil units. Power supply: 230V ~ 50Hz.
- **ZX:** Feet for recessed installation.
- **Control panels and VMF System:** the characteristics are described on the appropriate card.

		FCX Fan Coil																Versions
Accessories		17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102	
FMT10 • FMT21	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
KTLP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
PX • PX2 • PX2C6	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
PXAE	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV-PPC
PXAR	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
TF1	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
TPF	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
WMT05 • WMT06 • WMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
VMF-E4 • VMF-E4D	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PV
VMF-E0 • VMF-E1																		
AMP		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	P-PE-PO-PPC
AMP20																		P-PE-PO-PPC
BC	4	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	FCX P + MU
	5																	FCX P + MU
	6																	P-PE-PO-PPC
	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
CHF	17		•															P-PV
	22			•	•													P-PV
	32					•	•	•										P-PV
	42							•	•	•	•	•						P-PV
	62												•	•	•	•	•	P-PV
DSC4		(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	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
	17		•															P-PE-PV-PPC
	22			•	•													P-PE-PO-PV-PPC
	32					•	•	•										P-PE-PO-PV-PPC
PM	42							•	•	•	•	•						P-PE-PO-PV-PPC
	62												•	•	•	•	•	P-PE-PO-PV-PPC
	17		•															P-PE-PV-PPC
	22			•	•													P-PE-PO-PV-PPC
	32					•	•	•										P-PE-PO-PV-PPC
RD	42							•	•	•	•	•						P-PE-PO-PV-PPC
	62												•	•	•	•	•	P-PE-PO-PV-PPC
	17		•															P-PE-PV-PPC
	22			•	•													P-PE-PO-PV-PPC
	32					•	•	•										P-PE-PO-PV-PPC
RDA	42							•	•	•	•	•						P-PE-PO-PV-PPC
	62												•	•	•	•	•	P-PE-PO-PV-PPC
	17		•															P-PE-PV-PPC
	22			•	•													P-PE-PO-PV-PPC
	32					•	•	•										P-PE-PO-PV-PPC
RPA	42							•	•	•	•	•						P-PE-PO-PV-PPC
	62												•	•	•	•	•	P-PE-PO-PPC
	17		•															P-PE-PV
	22			•														P-PE-PO-PV
	32					•		•										P-PE-PO-PV
RX	42							•										P-PE-PO-PV
	52									•		•						P-PE-PO-PV
	62												•		•		•	P-PE-PO-PV

FCX Fan Coil																		
Accessories		17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102	Versions
SE	15X	(4)	•															P-PE-PV
	20X	(4)		•	•													P-PE-PO-PV-PPC
	30X	(4)				•	•	•										P-PE-PO-PV-PPC
	40X	(4)						•	•	•	•	•						P-PE-PO-PV-PPC
	80X	(4)											•	•	•	•	•	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	1X4L - 1X4R		•	•	•													P-PO-PV
	2X4L - 2X4R				•		•	•	•	•	•	•						P-PO-PV
	3X4L - 3X4R												•	•	•	•	•	P-PO-PV
	41 - 4124	(5)	•	•		•												P-PO-PV-PPC
	42 - 4224	(5)			•		•	•	•	•	•	•						P-PO-PV-PPC
	43 - 4324	(5)											•	•	•	•	•	P-PO-PV-PPC
	44 - 4424	(5)(6)	•	•		•		•	•	•	•	•						P-PO-PV
45 - 4524	(5)											•		•		•	P-PO-PV	
VCFD	1 - 124	(5)	•	•	•	•												P-PO-PV-PPC
	2 - 224	(5)			•		•	•	•	•	•	•						P-PO-PV-PPC
	3 - 324	(5)											•	•	•	•	•	P-PO-PV-PPC
	4 - 424	(5)(7)	•	•		•		•	•	•	•	•	•		•		•	P-PO-PV
ZX	7		•	•	•	•	•	•	•	•	•	•						P-PE-PO-PV-PPC
	8												•	•	•	•	•	P-PE-PO-PV-PPC

- (1) the characteristics are described on the appropriate card.
 (2) Accessories and BC4 VCF can not be mounted at the same time
 (3) DSC4 is incompatible with the accessory AMP and BC Auxiliary condensate drip tray
 (4) The accessory SE require pairing with ZX
 (5) 24 Volt
 (6) Only for the BV1-row coil accessory

Technical data

Mod. FCX_P / FCX_PO		Vel.	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
2 PIPE SYSTEM CONFIGURATION																		
Heating capacity (70°C)	(1)	W	H	2490	3400	3950	4977	5851	6151	7400	8600	8620	10100	9648	12919	14300	15140	17019
	(1)	W	M	2070	2700	3200	4078	4847	5048	6414	6930	7531	8759	8434	10942	11501	13349	14421
	(1)	W	L	1610	1915	2200	3390	3852	4181	5116	5200	5419	6241	6056	8327	8499	10771	11198
Water flow rate	(1)	l/h	H	218	298	347	436	513	539	649	754	756	886	846	1133	1254	1328	1490
	(1)	l/h	M	182	237	281	357	425	442	563	608	660	768	740	960	1008	1170	1265
	(1)	l/h	L	141	168	193	297	338	366	449	456	475	547	531	730	745	944	982
Pressure drop	(1)	kPa	H	3	6	6	8	6	5	7	5	7	5	6	5	4	6	5
	(1)	kPa	M	2	4	5	7	5	5	4	6	5	5	4	4	4	5	4
	(1)	kPa	L	1	2	4	6	5	4	4	4	5	4	4	4	4	4	5
Heating capacity (50°C)	(2)	W	H	1360	1770	2320	3160	3550	3800	3460	5250	4380	6100	5380	5490	7810	7990	6810
	(2)	W	M	1200	1510	1840	2450	2860	2950	3410	4130	3940	5220	4840	5190	6170	6730	8550
	(2)	W	L	990	1130	1250	2060	2220	2480	2600	3060	3000	3650	3680	3870	4510	5300	6030
Water flow rate	(2)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1311
	(2)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259
	(2)	l/h	L	112	144	174	267	303	311	358	463	432	533	475	554	674	738	992
Pressure drop	(2)	kPa	H	2	6	2	16	5	9	12	64	35	20	22	16	10	14	26
	(2)	kPa	M	2	5	2	12	4	7	9	40	28	16	20	10	8	16	19
	(2)	kPa	L	1	2	1	7	3	6	14	24	19	9	15	10	5	12	13
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)																		
Heating capacity (70°C)	(3)	W	H	1400	1770	-	2850	-	-	3460	-	4380	-	-	5490	-	6410	-
	(3)	W	M	1200	1510	-	2450	-	-	3410	-	3940	-	-	4700	-	6300	-
	(3)	W	L	990	1130	-	2030	-	-	2660	-	3220	-	-	3870	-	5300	-
Water flow rate	(3)	l/h	H	120	155	-	245	-	-	303	-	384	-	-	482	-	562	-
	(3)	l/h	M	103	131	-	211	-	-	299	-	346	-	-	412	-	553	-
	(3)	l/h	L	85	99	-	175	-	-	233	-	282	-	-	339	-	465	-
Pressure drop	(3)	kPa	H	3	6	-	16	-	-	21	-	35	-	-	16	-	14	-
	(3)	kPa	M	2	5	-	12	-	-	22	-	28	-	-	12	-	16	-
	(3)	kPa	L	2	3	-	8	-	-	14	-	19	-	-	10	-	12	-
COOLING MODE for all configuration																		
Total cooling capacity	(4)	W	H	1000	1500	1730	2400	2800	2800	3400	4450	4190	4970	4600	4860	6350	6910	7620
	(4)	W	M	840	1220	1370	1840	2280	2150	2780	3590	3511	4320	3850	4370	5210	5000	6880
	(4)	W	L	650	840	1010	1550	1760	1810	2080	2690	2509	3100	2760	3220	3920	4290	5690
Sensible cooling capacity	(4)	W	H	830	1240	1380	1900	2130	2200	2760	3300	3000	3540	3500	3980	5030	5680	5530
	(4)	W	M	690	1000	1090	1570	1720	1820	2230	2640	2540	3060	3070	3300	4100	3780	5350
	(4)	W	L	510	670	760	1110	1250	1280	1660	1960	1790	2170	2120	2440	3060	2970	4420
Water flow rate	(4)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1311
	(4)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259
	(4)	l/h	L	112	144	174	267	303	311	358	463	432	533	475	554	674	738	992
Pressure drop	(4)	kPa	H	3	6	3	28	9	28	14	77	19	26	38	17	13	22	37
	(4)	kPa	M	2	5	2	13	5	17	10	48	13	21	28	12	9	23	30
	(4)	kPa	L	1	3	1	14	4	13	6	29	8	12	15	7	6	11	13
Air flow rate	m ³ /h	H	200	290	290	450	450	450	600	600	720	720	720	920	920	1140	1140	1300
	m ³ /h	M	160	220	220	350	350	350	460	460	600	600	600	720	720	930	930	1120
	m ³ /h	L	110	140	140	260	260	260	330	330	400	400	400	520	520	700	700	900
Fans	type																	
	n°		1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3
Absorbed power	W	H	35	25	33	44	48	44	57	57	67	76	67	82	91	106	106	131
	W	M	29	22	29	33	34	33	43	43	46	52	46	61	60	80	80	100
	W	L	19	19	25	25	28	25	30	30	34	38	34	40	38	59	59	80

Mod. FCX_P / FCX_PO		Vel.	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
Max. motor power	(PO) W		-	54	54	97	97	97	111	111	82	82	82	97	97	135	135	-
Max. motor power with electric heater	(P) W		735	975	-	1344	-	1344	1707	-	2017	-	2017	2282	-	2306	-	2331
	(PO) W		-	1004	-	1397	-	1397	1761	-	2032	-	2032	2297	-	2335	-	-
Max input current	(P) (A)		0,16	0,12	0,25	0,21	0,45	0,21	0,28	0,51	0,35	0,36	0,35	0,4	0,48	0,49	0,62	0,58
	(PO) (A)		-	0,25	0,25	0,45	0,45	0,45	0,51	0,51	0,36	0,36	0,36	0,48	0,48	0,62	0,62	-
Max input current with electric heater	(P) (A)		3,2	4,25	-	5,86	-	5,86	7,45	-	8,83	-	8,83	9,97	-	10,06	-	10,15
	(PO) (A)		-	4,38	-	6	-	6	7,68	-	8,84	-	8,84	10,05	-	10,19	-	-
Sound power level (P)	(5) dB(A) H		45	49	51	48	44	48	51	55	56	56	57	57	57	61	61	66
	(5) dB(A) M		38	42	46	41	41	41	44	50	51	53	51	51	51	56	57	61
Sound pressure level (P)	(5) dB(A) L		31	31	35	34	36	34	39	41	42	44	42	42	44	51	51	56
	(6) dB(A) H		36,5	40,5	42,5	39,5	35,5	39,5	42,5	46,5	47,5	47,5	47,5	48,5	48,5	52,5	52,5	57,5
	(6) dB(A) M		29,5	33,5	37,5	32,5	32,5	32,5	35,5	41,5	42,5	44,5	42,5	42,5	42,5	47,5	48,5	52,5
	(6) dB(A) L		22,5	22,5	26,5	25,5	27,5	25,5	30,5	32,5	33,5	35,5	33,5	35,5	35,5	42,5	42,5	47,5
Sound power level (PO)	(5) dB(A) H		-	58	58	52,5	52,5	52,5	58,5	58,5	59	59	59	62	62	64	64	-
Sound pressure level (PO)	(6) dB(A) H		-	49,5	49,5	44	44	44	50	50	50,5	50,5	50,5	53,5	53,5	55,5	55,5	-
Water content	l		0,58	0,79	1	1,11	1,5	1,11	1,48	1,9	1,48	1,9	1,48	2,52	3,4	2,52	3,4	2,52
Coil connections	ø (4R)		-	-	3/4"	-	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"	-	3/4"	-	3/4"
	ø (1R)		1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-	1/2"
Speed connected	P	H	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3
	P	M	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2
	P	L	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1
Power supply			230V/1/50Hz															

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

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

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

FCX22÷50

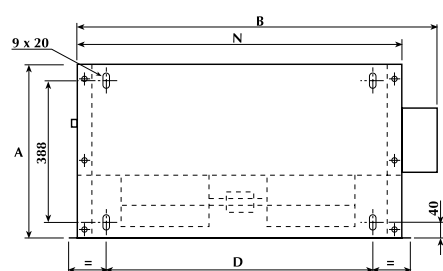
V1	V2	V3	V4	V5	V6	Speed
L6	L5	L4	L3	L2	L1	motor connected

V1	V2	V3	V4	V5	V6	V7
L7	L6	L5	L4	L3	L2	L1

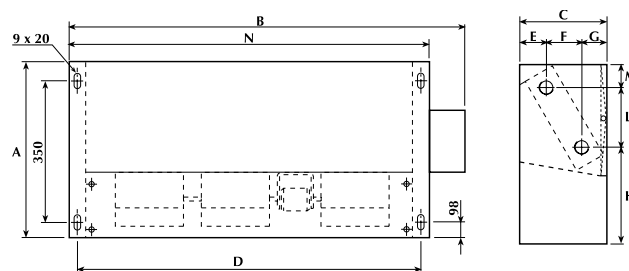
FCX62÷82

Dimensions (mm)

FCX 17 - 22 / 24 - 32 / 34 / 36 - 42 / 44 - 50 / 54 / 56



FCX 62 / 64 - 82 / 84 - 102



FCX	17	22 / 24	32 / 34 / 36	42 / 44	50 / 54 / 56	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

DUALJET

Controlled outlet fan coils
Floor installation



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

Variable Multi Flow

VMF

- White**
- ☐ housing RAL 9002
 - ☐ head and feet RAL 7044



DUALJET: comfort, everywhere

The perception of uneven temperature distribution, especially vertically, is one of the main factors that can drastically reduce occupants' perceived well-being.

The innovative DUALJET fan coil makes the room more comfortable, by directing the air in such a way as to provide uniform temperature distribution throughout the room.

In winter, warm air is directed towards the floor; in the summer, cool air is directed towards the ceiling.

Features

- Controlled outlet fan coils available in 4 sizes:
- **Vertical installation:**
DUALJET: without control panel but with VMF-E0 thermostat, ready for installation on the network as a Slave unit or as a single or Master unit if combined with the wired panel accessories VMF-E4 / VMF-E4D or VMF-E2D control panel.
- All units are compatible with the VMF system
- Switching the front air outlet or from the top, using the selector on the unit.
- Front outlet for heating operation.
- Outlet from the top for cooling operation.
- Versions with 3-row coil (sizes 20, 30, 40, 50)
- 3-speed ventilating unit
- Full compliance with the accident prevention standards
- Rounded line
- Metallic protective cabinet with rustproofing polyester paint
- Plastic feet available as accessory
- 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

Accessories

- **Control panel and VMF System (1):** The features are described in the dedicated cards.
* **VMF-E1D** Please contact us.
- **ZX:** Feet for floor mounting
- **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.
- **VCF_X4:** The valve kits are designed for fan coil units with single coil, installed in a 4 pipe system with the "Cooling" and "Heating" circuits totally separated. The kit consists of 2 valves of 3-way 4 port connection complete with electro-

thermal actuators, insulating shells for the valves and associated hydraulic piping. VCF1X4L Valve kit for left hand connection fan coil units. VCF1X4R Valve kit for right hand connection fan coil units. Power supply: 230V ~ 50Hz.

DUALJET	20	30	40	50
VMF-E4 • VMF-E4D	•	•	•	•
VMF-E2D	•	•	•	•
VMF-E1D (1)	•	•	•	•
ZX5	•	•	•	•
VCF41 • VCF4124	•	•		
VCF42 • VCF4224			•	•
VCFD1 • VCFD124	•	•		
VCFD2 • VCFD224			•	•
VCF1X4L • VCF1X4R	•	•		
VCF2X4L • VCF2X4R			•	•

(1) The replacement of the VMF-E0 with the VMF-E1D is to be provided at time of order, because it is applicable only in the factory.

Technical data

Mod. DUALJET		Vel.	20	30	40	50
2 PIPES SYSTEM CONFIGURATION						
Heating capacity (70°C)	(1)	W	H	3552	5354	7115
	(1)	W	M	2679	4065	6179
	(1)	W	L	1758	3165	4779
Water flow rate	(1)	l/h	H	312	470	624
	(1)	l/h	M	235	357	542
	(1)	l/h	L	154	278	419
Pressure drop	(1)	kPa	H	7	15	15
	(1)	kPa	M	4	9	12
	(1)	kPa	L	2	6	7
Heating capacity (50°C)	(2)	W	H	2100	3160	4240
	(2)	W	M	1600	2430	3670
	(2)	W	L	1060	1890	2850
Water flow rate	(2)	l/h	H	258	380	585
	(2)	l/h	M	229	353	482
	(2)	l/h	L	181	270	397
Pressure drop	(2)	kPa	H	5	12	11
	(2)	kPa	M	4	8	8
	(2)	kPa	L	2	5	5
COOLING MODE						
Total cooling capacity	(3)	W	H	1500	2210	3400
	(3)	W	M	1330	2050	2800
	(3)	W	L	1050	1570	2310
Sensible cooling capacity	(3)	W	H	1240	1750	2760
	(3)	W	M	1050	1540	2110
	(3)	W	L	750	1100	1630
Water flow rate	(3)	l/h	H	258	380	585
	(3)	l/h	M	229	353	482
	(3)	l/h	L	181	270	397
Pressure drop	(3)	kPa	H	5,8	14,2	14,3
	(3)	kPa	M	5	11	10
	(3)	kPa	L	3	6	7
Air flow rate		m³/h	H	290	450	600
		m³/h	M	220	350	460
		m³/h	L	140	260	330
Fans		type		Centrifugal		
		n°		1	2	2
Absorbed power		W	H	25	44	57
		W	M	22	33	43
		W	L	19	25	30
Max. input current		A		0,12	0,21	0,28
Sound power level	(4)	dB(A)	H	50	48	51
	(4)	dB(A)	M	43	41	44
	(4)	dB(A)	L	31	34	37
Sound pressure level	(5)	dB(A)	H	41,5	39,5	42,5
	(5)	dB(A)	M	34,5	32,5	35,5
	(5)	dB(A)	L	22,5	25,5	28,5
Water content		l		0,79	1,11	1,48
Coil connections		ø		1/2"	1/2"	3/4"
Speed connected			H	V3	V3	V3
			M	V2	V2	V2
			L	V1	V1	V1
Power supply				230V/1/50Hz		

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; DT water 10°C

2 pipes system configuration (EUROVENT)

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

Cooling mode (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; AT water 5°C

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

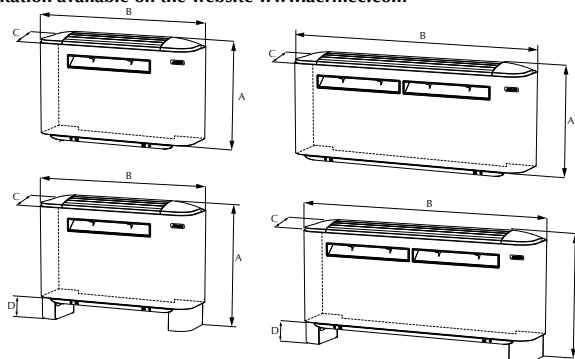
(5) Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

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

Dimensions (mm)

Mod DUALJET		20	30	40	50
Height	A	mm 520	520	520	520
Height with feet		mm 606	606	606	606
Width	B	mm 750	980	1200	1200
Depth	C	mm 220	220	220	220
	D	mm 88	88	88	88
Weight (1)		kg 15	20	24	24

(1) Unit in standard configuration without accessories



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

VEC Cassette type fancoil Coanda-effect Installation in false ceilings



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



Features

VEC: Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.

- 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.

Accessories:

- **AMP:** kit for wall-mounting installation.
- **BC5:** auxiliary condensate drain tray.
- **BV:** Single row hot water coil.
- **DSC4:** condensate drainage device for use when natural run-off is not possible.
- **SIT 3-5:** thermostat interface cards. These allow you to create a network of fan coils (max. 10), commanded from a centralised panel (selector or thermostat).
SIT3: commands the 3 fan speeds, and must be installed on each fan coil in the network; receives the commands from the selector or SIT5 card.
SIT5: commands the 3 fan speeds and up to 2 valves

(4-pipe systems); conveys the thermostat commands to the fan coil network.

- **SW3:** water temperature probe, allowing the implementation of automatic season changeover for those electronic thermostats equipped with water side changeover.
- **SWA:** SWA external probe accessory (length L = 6m). Detects the ambient air temperature if connected to the connector (A) of the panel FMT21; in this case the ambient air temperature probe built into the panel will be automatically disabled. Detects the temperature of the water in the system to allow ventilation consent if connected to the connector (W) of the panel FMT21. Two SWA probes may be simultaneously connected to the panel FMT21.
- **VCF:** kit consisting of a 3-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD:** Kit consisting of a 2-way motorised valve,

and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply..

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

Accessories for heating mode

- **RX:** Armoured electric coil with safety thermostat. (Requires a thermostat with heater management).
- **PXAR:** Electronic thermostat for fan coils installed in 2-pipe systems, 2-pipe systems with electric heater.
- **PCR1:** Galvanised plate protection for the controls and the electrical element.
- **BV:** Single row hot water coil.
- **VCF:** the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. Versions with 230V and 24V~50Hz power supply.
- **VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row. Versions with 230V and 24V~50Hz power supply.

VEC	20	30	40	50
	24	34	44	54

Compulsory accessories				
VEC20GL	•			
VEC30GL		•		
VEC40GL			•	•

AMP	•	•	•	•
AMP20	•	•	•	•
BC5	•	•	•	•
DSC4	(1)	•	•	•
SIT3	•	•	•	•
SIT5	•	•	•	•
SW3	•	•	•	•
SWA	•	•	•	•
VCF41	•	•		
VCF42			•	•
VCF4124	•	•		
VCF4224			•	•
VCFD1	•	•		
VCFD2			•	•

VEC	20	30	40	50
	24	34	44	54

VCFD124	•	•		
VCFD224			•	•
Control panel				
FMT10	•	•	•	•
FMT21	•	•	•	•
KTLP	•	•	•	•
PX2	•	•	•	•
PX2C6	•	•	•	•
PX	•	•	•	•
PXAE	•	•	•	•
TPF	•	•	•	•
TF1	•	•	•	•
WMT05	•	•	•	•
WMT06	•	•	•	•
WMT10	•	•	•	•
VMF-System				
VMF-E4 / E4D	•	•	•	•
VMF-E0 / E1	•	•	•	•
VMF-E5B / E5N	•	•	•	•

VEC	20	30	40	50
	24	34	44	54

VMF-SW	•	•	•	•
VMF-SW1	•	•	•	•

Accessory dedicated to heating mode

RX22	(2)	•		
RX32	(2)		•	
RX42	(2)			•
RX52	(2)			•
PXAR	(2)	•	•	•
PCR1	(2)	•	•	•
BV122	(2)	•		
BV132	(2)		•	
BV142	(2)			•
VCF44	(2)(3)	•	•	•
VCF4424	(2)(3)	•	•	•
VCFD4	(2)(3)	•	•	•
VCFD424	(2)(3)	•	•	•

(1) DSC4 The accessory is not compatible with the installation brackets AMP and with the basins BC5, and VMF system.

(2) See notes and warnings in the technical booklet.

(3) only for accessory coil BV 1R

Technical data

Mod. VEC		Vel.	20	24	30	34	40	44	50	54
COOLING MODE										
Total cooling capacity	(1)	W	H	1320	1522	1950	2471	2980	3907	4282
	(1)	W	M	1080	1224	1640	2140	2470	3335	4154
	(1)	W	L	800	877	1370	1789	1980	2552	2995
Sensible cooling capacity	(1)	W	H	1080	1147	1530	1775	2410	2737	2909
	(1)	W	M	880	908	1280	1510	1980	2421	2270
	(1)	W	L	640	667	1050	1257	1580	1909	1785
Water flow rate	(1)	l/h	H	227	262	335	425	513	672	737
	(1)	l/h	M	186	211	282	368	425	574	714
	(1)	l/h	L	138	151	236	308	341	439	515
Pressure drop	(1)	kPa	H	4,6	3	13,3	8	11,3	22	14,8
	(1)	kPa	M	4	2	11	6	9	16	10
	(1)	kPa	L	2	1	6	4	6	9	6
Air flow rate		m ³ /h	H	247	247	383	383	511	511	613
		m ³ /h	M	194	194	309	309	406	406	529
		m ³ /h	L	130	130	241	241	306	306	371
Fans		type		Centrifugal						
		n°		1	1	2	2	2	2	2
Absorbed power		W	H	25	25	44	44	57	57	67
		W	M	22	22	33	33	43	43	46
		W	L	19	19	25	25	30	30	34
Max. input current		A		0,12	0,12	0,21	0,21	0,28	0,28	0,35
Sound power level	(2)	dB(A)	H	48	48	49	49	48	48	53
	(2)	dB(A)	M	42	42	43	43	43	43	50
	(2)	dB(A)	L	35	35	37	37	38	38	43
Sound pressure level	(3)	dB(A)	H	39,5	39,5	40,5	40,5	39,5	39,5	44,5
	(3)	dB(A)	M	33,5	33,5	34,5	34,5	34,5	34,5	41,5
	(3)	dB(A)	L	26,5	26,5	28,5	28,5	29,5	29,5	34,5
Water content		l		0,79	0,79	1,11	1,11	1,48	1,48	1,48
Coil connections		ø		1/2"G	1/2"G	1/2"G	1/2"G	3/4"G	3/4"G	3/4"G
Speed connected			H	V3	V3	V3	V3	V3	V3	V3
			M	V2	V2	V2	V2	V2	V2	V2
			L	V1	V1	V1	V1	V1	V1	V1
Power supply				230V/1/50Hz						

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

Cooling mode (EUROVENT)

(1) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

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

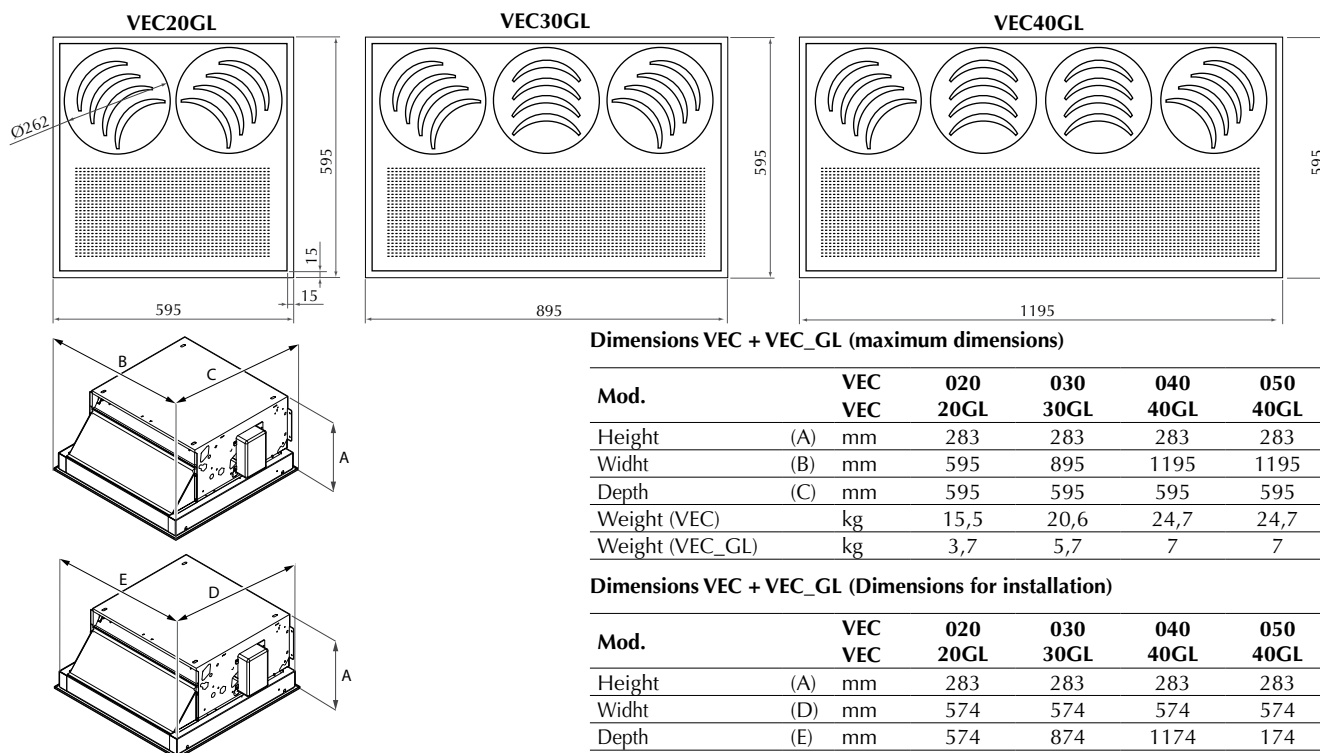
Heating

See notes and warnings in the technical booklet.

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

Dimensions (mm)

VEC_GL (Compulsory accessory)



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

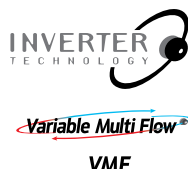
Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

VEC_I

Cassette type fancoil Coanda-effect Installation in false ceilings



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



Features

- VEC:** Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.
- 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.

Accessori

Compulsory accessories:

the following are essential for the functioning of the units:

- **VEC_GL:** air suction and delivery grille with adjustable Coanda-effect vents. White RAL 9010.

Accessories:

- **AMP:** kit for wall-mounting installation.
- **BC5:** auxiliary condensate drain tray.
- **BV:** Single row hot water coil.
- **DSC4:** condensate drainage device for use when natural run-off is not possible.
- **SIT 3-5:** thermostat interface cards. These allow you to create a network of fan coils (max. 10), commanded from a centralised panel (selector or thermostat).
- **SIT3:** commands the 3 fan speeds, and must be installed on each fan coil in the network; receives the commands from the selector or SIT5 card.
- **SIT5:** commands the 3 fan speeds and up to 2 valves

(4-pipe systems); conveys the thermostat commands to the fan coil network.

- **SW3:** water temperature probe, allowing the implementation of automatic season changeover for those electronic thermostats equipped with water side changeover.
- **SWA:** SWA external probe accessory (length L = 6m). Detects the ambient air temperature if connected to the connector (A) of the panel FMT21; in this case the ambient air temperature probe built into the panel will be automatically disabled. Detects the temperature of the water in the system to allow ventilation consent if connected to the connector (W) of the panel FMT21. Two SWA probes may be simultaneously connected to the panel FMT21.
- **VCF:** kit consisting of a 3-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- **VCFD:** Kit consisting of a 2-way motorised valve,

and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.

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

Accessories for heating mode

- **RX:** Armoured electric coil with safety thermostat. (Requires a thermostat with heater management).
- **PXAR:** Electronic thermostat for fan coils installed in 2-pipe systems, 2-pipe systems with electric heater.
- **PCR1:** Galvanised plate protection for the controls and the electrical element.
- **BV:** Single row hot water coil.
- **VCF:** the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. Versions with 230V and 24V~50Hz power supply.
- **VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row. Versions with 230V and 24V~50Hz power supply.

VEC_I	20	30	40	50
	24	34	44	54
Compulsory accessories				
VEC20GL	•			
VEC30GL		•		
VEC40GL			•	•
AMP	•	•	•	•
AMP20	•	•	•	•
BC5	•	•	•	•
DSC4	(1)	•	•	•
SIT3	•	•	•	•
SIT5	•	•	•	•
SW3	•	•	•	•
SWA	•	•	•	•
VCF41	•	•		
VCF42			•	•

VEC_I	20	30	40	50
	24	34	44	54
VCF4124	•	•		
VCF4224			•	•
VCFD1	•	•		
VCFD2			•	•
VCFD124	•	•		
VCFD224			•	•
Control panel				
WMT20	•	•	•	•
VMF-System				
VMF-E4 / E4D	•	•	•	•
VMF-E18	•	•	•	•
VMF-E5B / E5N	•	•	•	•
VMF-SW	•	•	•	•
VMF-SW1	•	•	•	•

VEC_I	20	30	40	50
	24	34	44	54
Accessory dedicated to heating mode				
RX22	(2)	•		
RX32	(2)		•	
RX42	(2)			•
RX52	(2)			•
PXAR	(2)	•	•	•
PCR1	(2)	•	•	•
BV122	(2)	•		
BV132	(2)		•	
BV142	(2)			•
VCF44	(2)(3)	•	•	•
VCF4424	(2)(3)	•	•	•
VCFD4	(2)(3)	•	•	•
VCFD424	(2)(3)	•	•	•

- (1) DSC4 The accessory is not compatible with the installation brackets AMP and with the basins BC5, and VMF system.
- (2) See notes and warnings in the technical booklet.
- (3) only for accessory coil BV 1R

Technical data

Mod. VEC_I		Vel.	20I	24I	30I	34I	40I	44I	50I	54I
COOLING MODE										
Total cooling capacity	(1)	W	H	1320	1522	1950	2471	2980	3907	4282
	(1)	W	M	1080	1224	1640	2140	2470	3335	4154
	(1)	W	L	800	877	1370	1789	1980	2552	2995
Sensible cooling capacity	(1)	W	H	1080	1147	1530	1775	2410	2737	2909
	(1)	W	M	880	908	1280	1510	1980	2421	2270
	(1)	W	L	640	667	1050	1257	1580	1909	1785
Water flow rate	(1)	l/h	H	227	262	335	425	513	672	737
	(1)	l/h	M	186	211	282	368	425	574	714
	(1)	l/h	L	138	151	236	308	341	439	515
Pressure drop	(1)	kPa	H	4,6	3	13,3	8	11,3	22	14,8
	(1)	kPa	M	4	2	11	6	9	16	10
	(1)	kPa	L	2	1	6	4	6	9	6
Air flow rate		m ³ /h	H	247	247	383	383	511	511	613
		m ³ /h	M	194	194	309	309	406	406	529
		m ³ /h	L	130	130	241	241	306	306	371
Fans		type					centrifugal			
		n°		1	1	2	2	2	2	2
Absorbed power		W	H	12	12	10	10	17	17	37
		W	M	8	8	10	10	9	9	20
		W	L	5	5	10	10	6	6	8
Max. input current		A		0,11	0,11	0,11	0,11	0,14	0,14	0,3
Sound power level	(2)	dB(A)	H	48	48	49	49	48	48	53
	(2)	dB(A)	M	42	42	43	43	43	43	50
	(2)	dB(A)	L	35	35	37	37	38	38	43
Sound pressure level	(3)	dB(A)	H	39,5	39,5	40,5	40,5	39,5	39,5	44,5
	(3)	dB(A)	M	33,5	33,5	34,5	34,5	34,5	34,5	41,5
	(3)	dB(A)	L	26,5	26,5	28,5	28,5	29,5	29,5	34,5
Water content		l		0,79	0,79	1,11	1,11	1,48	1,48	1,48
Coil connections		ø		1/2"G	1/2"G	1/2"G	1/2"G	3/4"G	3/4"G	3/4"G
Speed connected			H	5,4V	5,4V	5V	5V	5,1V	5,1V	6,1V
			M	4,2V	4,2V	3,8V	3,8V	3,9V	3,9V	5,1V
			L	2,6V	2,6V	2,8V	2,8V	2,8V	3,4V	3,4V
Power supply							230V/1/50Hz			

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

Cooling mode (EUROVENT)

(1) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

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

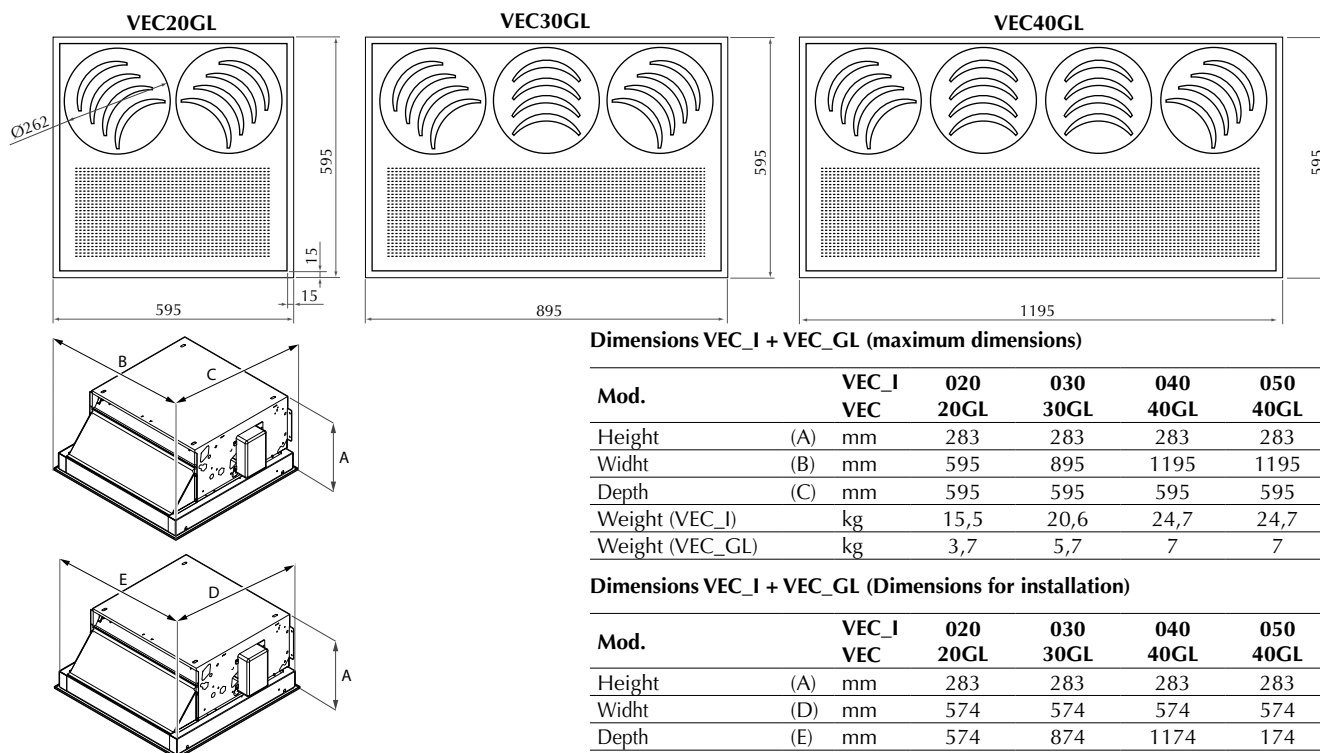
Heating

See notes and warnings in the technical booklet.

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

Dimensions (mm)

VEC_GL (Compulsory accessory)



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

Omnia HL Fan coils

Universal installations for residential applications



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



Plasmacluster
(only for Omnia HL PC and PCM)



Variable Multi Flow

VMF

GIUGIARO
DESIGN

White colour:

- ☐ cover: RAL 9002
- ☐ top and supports: RAL 7044

Grey colour:

- ☐ cover: FIAT 656
- ☐ top and supports: RAL 7031

Features

- HL (High Line) fan coils for both horizontal and vertical installation
- 4 sizes and 12 versions:
 - HL:** white body with switch
 - HL M:** metallic grey body with switch
 - HL N:** white body with electronic thermostat VMF
 - HL NM:** metallic grey body with electronic thermostat VMF
 - HL L:** white cabinet with Self-Closing Louver and electronic thermostat
 - HL LM:** grey cabinet with Self-Closing Louver and electronic thermostat
 - HL PC:** white body with electronic thermostat and Plasmacluster filter (factory-mounted only)
 - HL PCM:** metallic grey body with electronic thermostat and Plasmacluster filter (factory-mounted only)
 - HL S:** white body with no on-board controls VMF System compatible
 - HL SM:** metallic grey body with no on-board controls. VMF System compatible
- 3-speed centrifugal fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- New adjustable air delivery louver
- Automatic power-off function with closure of

the air delivery louver

- Slim dimensions
- Electronic temperature control, automatic fan speed change, automatic season changeover and automatic on - off (with electronic thermostat)
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Full compliance with safety regulations

Accessories

- **AMP:** Kit for wall/ceiling mounting. Standard on S and SM versions.
- **BC:** Auxiliary condensate drip tray. BC 10 for vertical installation BC 20 for horizontal installation
- **DSC5:** Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **PCH - PCHM:** Back closing panel, white (PCHM) or gray (PCHM).
- **SIT 3-5:** Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
 - SIT3:** commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
 - SIT5:** commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW:** Water probe which enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA:** External probe accessory SWA (length L=6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH:** Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD:** Kit comprising motorized 2-way valve, unions and copper pipes.
- **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⁽¹⁾ and VMF system⁽²⁾:** the characteristics of the control panels are described on the appropriate card.

Compatibility of accessories

Omnia HL	11	16	26	36	Versions
FMT10 ⁽¹⁾ •FMT21 ⁽¹⁾	•	•	•	•	S-SM
PX2 ⁽¹⁾ •PX2C6 ⁽¹⁾	•	•	•	•	S-SM
PXAE ⁽¹⁾	•	•	•	•	S-SM
TPF ⁽¹⁾	•	•	•	•	S-SM
WMT05 ⁽¹⁾ •WMT10 ⁽¹⁾	•	•	•	•	S-SM
VMF-E4 ⁽²⁾ •VMF-E4D ⁽²⁾	•	•	•	•	S-SM
VMF-E2H ⁽²⁾	•	•	•	•	S-SM
VMF-E0 ⁽²⁾ •VMF-E1 ⁽²⁾	•	•	•	•	S-SM
AMP 10	•	•	•	•	All except L, SM
BC10 *	•	•	•	•	All
BC20 *	•	•	•	•	All
DSC5 *	•	•	•	•	All
PCH/PCHM	•	•	•	•	All
SIT3	•	•	•	•	S-SM
SIT5	•	•	•	•	S-SM
SW3	•	•	•	•	S-SM
SWA	•	•	•	•	S-SM
VCH	•	•	•	•	All except L, LM
VCHD	•	•	•	•	All except L, LM
ZH1/ZH1B	•	•	•	•	All
ZH1M/ZH1MB	•	•	•	•	All

PX2C6, PX2 panel in multiple 6-piece pack.

* = The DSC5 accessory is not compatible BC10 - BC20 accessories.

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 guaranteeing 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 breathe 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.		Vel.	HL 11	HL 16	HL 26	HL 36
2 PIPES SYSTEM CONFIGURATION						
Heating capacity (70°C)	(1)	W	H	2010	2910	4620
	(1)	W	M	1460	2120	3830
	(1)	W	L	1060	1540	2890
Water flow rate	(1)	l/h	H	176	255	405
	(1)	l/h	M	128	186	336
	(1)	l/h	L	93	135	253
Pressure drop	(1)	kPa	H	2	4	11
	(1)	kPa	M	1	2	8
	(1)	kPa	L	1	1	5
Heating capacity (50°C)	(2)	W	H	1150	1700	2750
	(2)	W	M	870	1250	2240
	(2)	W	L	650	930	1670
Water flow rate	(2)	l/h	H	144	206	349
	(2)	l/h	M	117	153	289
	(2)	l/h	L	93	122	220
Pressure drop	(2)	kPa	H	2	4	10
	(2)	kPa	M	1	2	7
	(2)	kPa	L	1	2	4
COOLING MODE						
Total cooling capacity	(3)	W	H	840	1200	2030
	(3)	W	M	680	890	1680
	(3)	W	L	540	710	1280
Sensible cooling capacity	(3)	W	H	700	990	1640
	(3)	W	M	530	710	1330
	(3)	W	L	390	540	990
Water flow rate	(3)	l/h	H	144	206	349
	(3)	l/h	M	117	153	289
	(3)	l/h	L	93	122	220
Pressure drop	(3)	kPa	H	1,9	4,8	11
	(3)	kPa	M	1	3	9
	(3)	kPa	L	1	2	5
Air flow rate		m³/h	H	180	240	350
		m³/h	M	120	160	270
		m³/h	L	80	110	190
Fans		type		Centrifugal		
		n°		1	1	2
Absorbed power		W	H	18	32	35
		W	M	12	25	27
		W	L	8	23	24
Max. input current	(A)			0,09	0,15	0,18
Sound power level	(4)	dB(A)	H	46	48	48
	(4)	dB(A)	M	37	43	43
	(4)	dB(A)	L	31	34	35
Sound pressure level	(5)	dB(A)	H	37,5	39,5	39,5
	(5)	dB(A)	M	28,5	34,5	34,5
	(5)	dB(A)	L	22,5	25,5	26,5
Water content	l			0,4	0,5	0,8
Coil connections	ø			1/2"	1/2"	1/2"
Speed connected			H	V3	V3	V3
			M	V2	V2	V2
			L	V1	V1	V1
Power supply				230V/1/50Hz		

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; DT water 10°C

2 pipes system configuration (EUROVENT)

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

Cooling mode (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

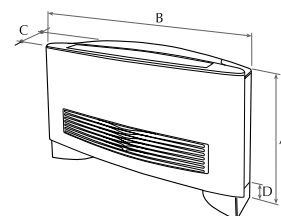
(4) **Sound power level** on the basis of measurements made in compliance with Eurovent 8/2

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

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

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 with feet	D	93	93	93	93
Weight	kg	13,6	14,6	17,6	20,6



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. +39 04 42 63 31 11 - Telefax +39 044 29 35 66
www.aermec.com

Omnia UL

Fan coils
Universal installations for residential applications



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



Variable Multi Flow

VMF

Omnia UL-P



Omnia UL



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. DSC5 is not compatible BC10 - BC20 accessories.
- **GU:** Aspiration grille, covers the front space between the stands, does not interfere with the air filter. **Use with ZU stands compulsory.**
- **PCU:** Rear cover panel.
- **SIT 3-5:** Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
 - SIT3:** commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
 - SIT5:** commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW:** Water probe which enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH:** Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD:** Kit comprising motorized 2-way valve, unions and copper pipes.
- **ZU:** Feet for floor-standing solutions.
- **Control panels⁽¹⁾ and VMF System⁽²⁾:** The control panels are described in a separate document.

Compatibility of accessories

Omnia UL	11	16	26	36	Versions
FMT10 ⁽¹⁾ •FMT21 ⁽¹⁾	✓	✓	✓	✓	S-P
PX2 ⁽¹⁾ • PX2C6 ⁽¹⁾	✓	✓	✓	✓	S-P
PXAE ⁽¹⁾	✓	✓	✓	✓	S-P
PXLM ⁽¹⁾	✓	✓	✓	✓	S
TPF ⁽¹⁾	✓	✓	✓	✓	S-P
WMT05 ⁽¹⁾ • WMT10 ⁽¹⁾	✓	✓	✓	✓	S-P
VMF-E4 ⁽²⁾ • VMF-E4D ⁽²⁾	✓	✓	✓	✓	S-P
VMF-E0 ⁽²⁾ • VMF-E1 ⁽²⁾	✓	✓	✓	✓	S-P
AMP10	✓	✓	✓	✓	UL-C-PC
BC10 *	✓	✓	✓	✓	All
BC20 *	✓	✓	✓	✓	All
DSC5 *	✓	✓	✓	✓	All
GU	10	15	25	35	UL-S-C-PC
PCU	10	15	25	35	UL-S-C-PC
SIT3	✓	✓	✓	✓	S-P
SIT5	✓	✓	✓	✓	S-P
SW3	✓	✓	✓	✓	All
SWA	✓	✓	✓	✓	S-P
VCH	✓	✓	✓	✓	All
VCHD	✓	✓	✓	✓	All
ZU	✓	✓	✓	✓	UL-S-C-PC

PX2C6, PX2 panel in multiple 6-piece pack.

* = The DSC5 accessory is not compatible BC10 - BC20 accessories.

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 guaranteeing 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 breathe 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.		Vel.	UL11	UL16	UL26	UL36
2 PIPES SYSTEM CONFIGURATION						
Heating capacity (70°C)	(1)	W	H	2010	2910	4620
	(1)	W	M	1460	2120	3830
	(1)	W	L	1060	1540	2890
Water flow rate	(1)	l/h	H	176	255	405
	(1)	l/h	M	128	186	336
	(1)	l/h	L	93	135	253
Pressure drop	(1)	kPa	H	2	4	11
	(1)	kPa	M	1	2	8
	(1)	kPa	L	1	1	5
Heating capacity (50°C)	(2)	W	H	1150	1700	2750
	(2)	W	M	870	1250	2240
	(2)	W	L	650	930	1670
Water flow rate	(2)	l/h	H	144	206	349
	(2)	l/h	M	117	153	289
	(2)	l/h	L	93	122	220
Pressure drop	(2)	kPa	H	2	4	10
	(2)	kPa	M	1	2	7
	(2)	kPa	L	1	2	4
COOLING MODE						
Total cooling capacity	(3)	W	H	840	1200	2030
	(3)	W	M	680	890	1680
	(3)	W	L	540	710	1280
Sensible cooling capacity	(3)	W	H	700	990	1640
	(3)	W	M	530	710	1330
	(3)	W	L	390	540	990
Water flow rate	(3)	l/h	H	144	206	349
	(3)	l/h	M	117	153	289
	(3)	l/h	L	93	122	220
Pressure drop	(3)	kPa	H	1,9	4,8	11
	(3)	kPa	M	1	3	9
	(3)	kPa	L	1	2	5
Air flow rate		m³/h	H	180	240	350
		m³/h	M	120	160	270
		m³/h	L	80	110	190
Fans		type		Centrifugal		
		n°		1	2	2
Absorbed power		W	H	18	32	35
		W	M	12	25	27
		W	L	8	23	24
Max. input current	(A)			0,09	0,15	0,18
Sound power level	(4)	dB(A)	H	46	48	48
	(4)	dB(A)	M	37	43	43
	(4)	dB(A)	L	31	34	35
Sound pressure level	(5)	dB(A)	H	37,5	39,5	39,5
	(5)	dB(A)	M	28,5	34,5	34,5
	(5)	dB(A)	L	22,5	25,5	26,5
Water content	l			0,4	0,5	0,8
Coil connections	ø			1/2"	1/2"	1/2"
Speed connected			H	V3	V3	V3
			M	V2	V2	V2
			L	V1	V1	V1
Power supply				230V/1/50Hz		

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; DT water 10°C

2 pipes system configuration (EUROVENT)

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

Cooling mode (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

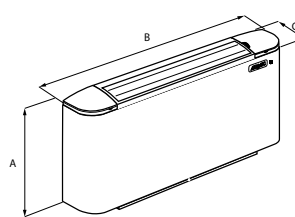
(4) **Sound power level** on the basis of measurements made in compliance with Eurovent 8/2

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

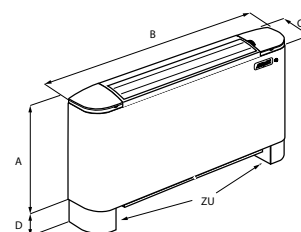
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensions (mm)

Mod Omnia		UL 11	UL 16	UL 26	UL 36
Height	A	513	513	513	513
Width	B	640	750	980	1200
Depth	C	173	173	173	173
Height with feet	D	93	93	93	93
Weight	kg	12,5	13,5	16,5	19,5



Wall installation



Floor installation

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

Omnia Radiant

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



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



VMF



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

Features

Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions

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

OMNIA Radiant inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating.

OMNIA Radiant Plus is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

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

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

The four different working modes of Omnia Radiant annual functioning

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

Radiant + Natural Convection

With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating.

As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

Radiant + Forced Convection

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

Omnia Radiant during summer provides air conditioning and dehumidification:

Forced Convection

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



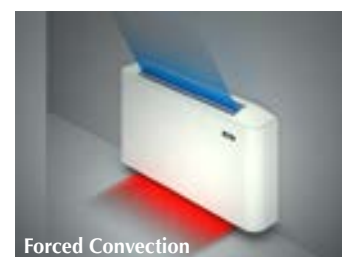
Radiant



Radiant + Natural Convection



Radiant + Forced Convection



Forced Convection

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



- **OMNIA radiant (UL_R) standard features:**

- Radiant panel
- Centrifugal fans
- Three-speed motor
- Condensate storage container, hydraulic hoses
- Switching valve
- Water probe
- Electro-statically preloaded filter
- VMF-E0R thermostat
- Compatible with VMF system

- **OMNIA radiant plus (UL_RI) standard features:**

- Radiant panel
- Centrifugal fans
- Electric DC Brushless motor with Inverter
- Condensate storage container, hydraulic hoses
- Water probe
- Switching valve
- Electro-statically preloaded filter
- VMF-E18R thermostat
- Compatible with VMF system

Cleaning the fan: The fan blades on the Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.

- **Electro-statically preloaded filter:** The Omnia Radiant fan coils feature standard air filters that are electro-statically preloaded. These filters, thanks to their particular construction, absorb and trap floating dust: the ideal system to provide clean air for all the family.
- **Silent operation:** Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise. **"The heating by radiation at top speed ensures total silence regime"**

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

Accessories

- **PCU:** Rear closing panel.
- **ZU:** Wedges for floor mount.
- **GU:** Exhaust grille: covers the front space of the wedges and does not interfere with the air filter.
Must be combined with ZU wedges.
- **VMF System:**
Its specs are described in its technical sheet.

	Omnia radiant		Omnia Radiant plus	
	UL26R	UL36R	UL26RI	UL36RI
PCU	25	35	25	35
GU	25	35	25	35
ZU	✓	✓	✓	✓
VMF system				
VMF-E4 (compulsory accessory)	✓	✓	✓	✓
VMF-E4D (compulsory accessory)	✓	✓	✓	✓
VMF-E5B	-	-	✓	✓
VMF-E5N	-	-	✓	✓

Technical Data

Mod. UL_R		26	36
Heating capacity (70°C)	(1) W (max.)	4620	5940
	W (med.)	3830	4870
	W (min.)	2890	3530
Heating capacity (50°C)	(2) W	2750	3540
Water flow rate	l/h	397	511
Water pressure drop	kPa	17	21
Static heating power (70°C)	(3) W	650	750
Static heating power (50°C)	(4) W	390	450
Static heating power (35°C)	(5) W	200	230
Total cooling capacity	W (max.)	2030	2830
	W (med.)	1780	2310
	W (min.)	1420	1730
Sensible cooling capacity	W (max.)	1640	2040
	W (med.)	1370	1790
	W (min.)	1050	1280
Water flow rate	l/h	349	487
Water pressure drop	kPa	18	22
Air flow rate	m ³ /h (max.)	350	460
	m ³ /h (med.)	270	350
	m ³ /h (min.)	190	240
n° Fans	n.	2	2
Sound pressure	dB (A) (max.)	39,5	39,5
	dB (A) (med.)	34,5	32,5
	dB (A) (min.)	26,5	25,5
Sound power	dB (A) (max.)	48	50
	dB (A) (med.)	43	41
	dB (A) (min.)	35	34
Water contents	l	0,8	1,1
Max. motor power	W	35	42
Max. input current	A	0,18	0,22
Coil connections (in/out)	ø (mm)	14	14
Power supply	V/ph/Hz	230V/1/50Hz	230V/1/50Hz
Mod. UL_RI 		26	36
Heating capacity (70°C)	(1) W (max.)	4620	5940
	W (med.)	3830	4870
	W (min.)	2890	3530
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Sound pressure	dB (A) (max.)	39,5	39,5
	dB (A) (med.)	34,5	32,5
	dB (A) (min.)	26,5	25,5
Sound power	dB (A) (max.)	48	50
	dB (A) (med.)	43	41
	dB (A) (min.)	35	34
Water contents	l	0,8	1,1
Max. motor power	W	12	16
Max. input current	A	0,18	0,22
Coil connections (in/out)	ø (mm)	14	14
Power supply	V/ph/Hz	230V/1/50Hz	230V/1/50Hz

Cooling:

Room temperature 27°C b.s./19°C b.u.; Cold water (in/out) 7°C/12°C

Heating:

(1) Room temperature 20°C b.s.; Hot water (in) 70°C; Δt 10°C

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

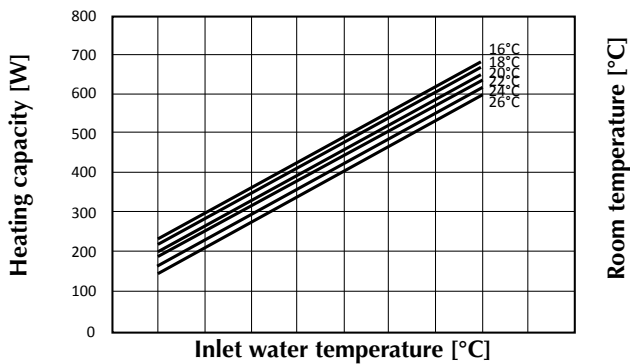
(3) Radiant power + natural convection; Hot water (in) 70°C (water flow same as in heating cycle)

(4) Radiant power + natural convection; Hot water (in/*) 50°C/*°C (water flow same as in heating cycle)

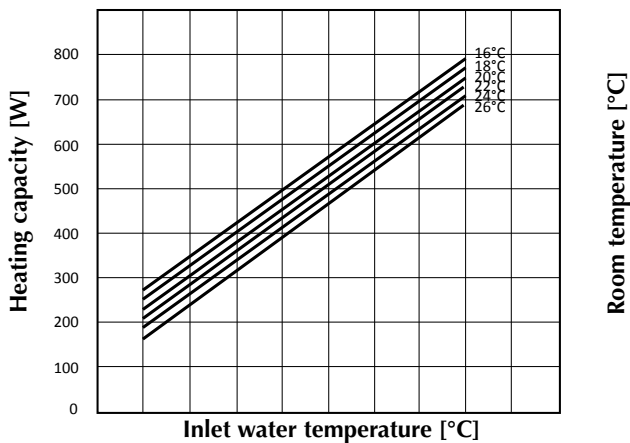
(5) Radiant power + natural convection; Hot water (in/*) 35°C/*°C (water flow same as in heating cycle)

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

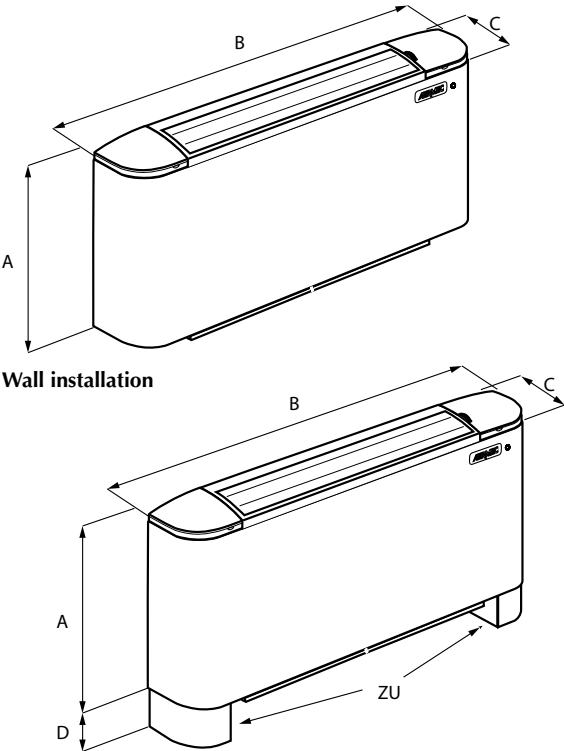
UL26R - UL26RI



UL36R - UL36RI



Dimensions (mm)



Mod OMNIA ULR - ULRI			26	36
Height	A	(mm)	606	606
Width	B	(mm)	980	1200
Depth	C	(mm)	173	173
Height with ZU (Accessories)	D	(mm)	93	93
Weight ⁽¹⁾		(kg)	20	24

(1) Standard configuration of unit with accessories

Floor installation

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Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

Ventilcassaforma

Template for recessed installation of fancoils in the wall

Variable Multi Flow

CHF
CHU L

VMF



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.

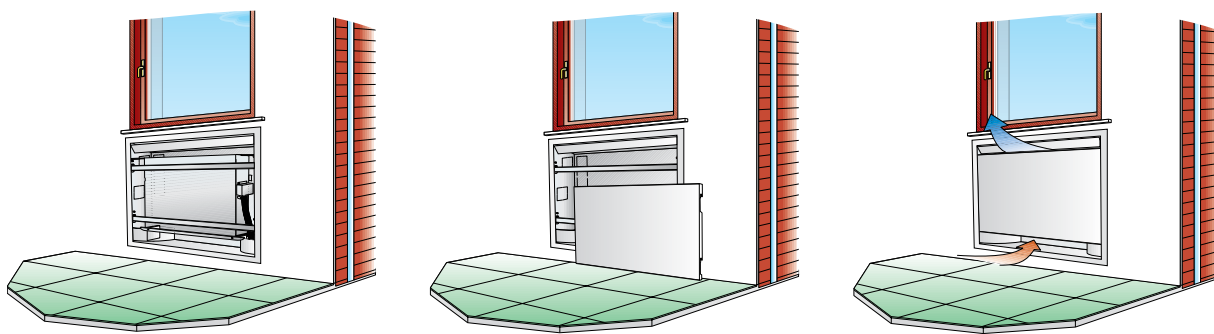
Ventilcassaforma is available in two versions with the same characteristics but designed to house fan coils from two different series:

- **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

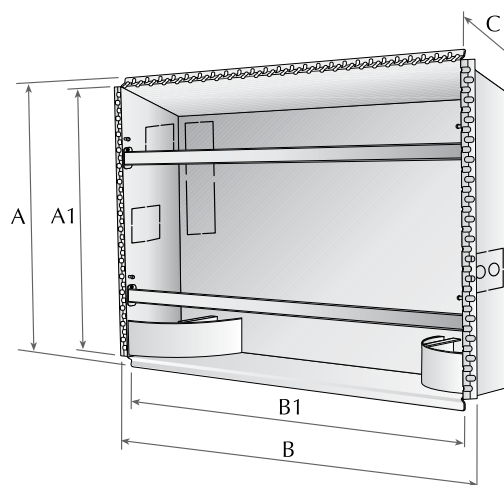
Ventilcassaforma CHU L + Omnia UL combination					
Ventilcassaforma	CHU 12 L		CHU 17 L	CHU 27 L	CHU 37 L
Fan coil	Omnia UL 11 P		Omnia UL 16 P	Omnia UL 26 P	Omnia UL 36 P
Ventilcassaforma CHF + FCX P - FCX PV - FCXI P combination					
Ventilcassaforma	CHF 17	CHF 22	CHF 32	CHF 42	CHF 62
Fan coil	FCX 17 P	FCX 22 P	FCX 32 P - 36 P	FCX 42 P - 50 P - 56 P	FCX 62 P - 82 P - 102 P
	FCX 17 PV	FCX 22 PV	FCX 32 PV - 36 PV	FCX 42 PV - 50 PV - 56 PV	FCX 62 PV - 82 PV - 102 PV
		FCX 24 P	FCX 34 P	FCX 44 P - 54 P	FCX 64 P - 84 P
		FCX 24 PV	FCX 34 PV	FCX 44 PV - 54 PV	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

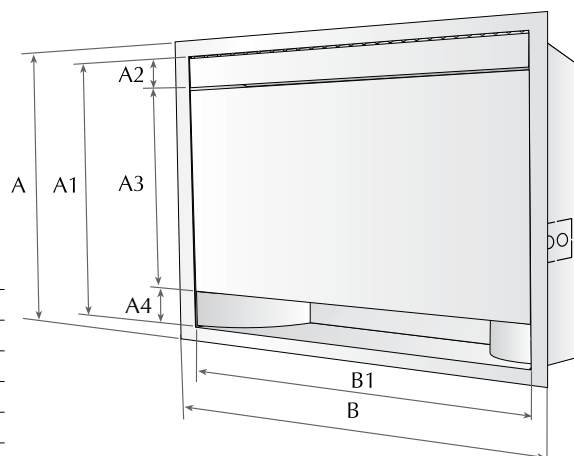
CHF		17	22	32	42	62
Height	A	728	728	728	728	833
	A1	684	684	684	684	789
Width	B	732	842	1073	1293	1414
	B1	684	794	1025	1245	1366
Depth	C	240	240	240	240	240



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



FCW Fan coil Wall installation



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



Variable Multi Flow[®]
VMF

- **2V VERSION WITH 2-WAY VALVE FITTED INSIDE WIRED CONTROL PANEL OR REMOTE CONTROL**
- **3V VERSION WITH 3-WAY VALVE FITTED INSIDE WIRED CONTROL PANEL OR REMOTE CONTROL**
- **VL VERSION WITHOUT VALVE WIRED CONTROL PANEL OR REMOTE CONTROL**

- **2VN VERSION WITH 2-WAY VALVE FITTED INSIDE STANDARD CONTROL OR VMF SYSTEM**
- **3VN VERSION WITH 3-WAY VALVE FITTED INSIDE STANDARD CONTROL OR VMF SYSTEM**
- **VLN VERSION WITHOUT VALVE STANDARD CONTROL OR VMF SYSTEM**

Features

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

Unit configuration:

1 2 3
|
Code
FCW

4 5
|
Size
21
31
41

6 7
|
Valve
2V (2-way valve fitted inside)
3V (3-way valve fitted inside)
VL (without Valve)

8
|
Microprocessor Controller
(Blank) with controller
N without controller

- **EUROVENT certified**
- Cream color
- Display on panel front
- Tangential three-speed fan assembly
- Very quiet operation
- Aesthetic design
- Horizontally adjustable discharge air blades
- Horizontal deflector blades to vertically adjust discharge air. Manually adjustable only for units

without microprocessor controller. For units with microprocessor controller adjustable only via PFW2 wired control panel or TLW2 remote control

- Timer for on/off programming (TLW2 and PFW2)
- Automatic, cooling, heating, ventilation and dehumidification function programming (TLW2 and PFW2)
- Sleep function only with TLW2 remote control

- Automatic season change (TLW2 and PFW2)
- Automatic start after black-out (TLW2 and PFW2)
- Ease of installation with hydraulic and condensate drain connections adjustable in several directions
- Routine maintenance is limited to periodic cleaning of the air filter
- Air filter can be easily removed and cleaned
- Full compliance with safety regulations

Accessories

• **TLW2 REMOTE CONTROL** (accessory for versions with microprocessor controller FCW_2V, FCW_3V, FCW_VL):

Accessory essential for the fan coil unit operation, as an alternative to the PFW2 wired control panel. The two control systems cannot be used at the same time on the same fan coil unit.

The TLW2 remote control is provided loose from the fan coil unit. One remote control can control several fan coil units.

The remote control makes it possible to set all the operating parameters of the unit. These parameters are shown on a liquid crystal display making programming operations easier.

The remote control is supplied with a bracket allowing it to be hung on the wall.

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

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.

• **PFW2 WIRED CONTROL PANEL** (accessory for versions with microprocessor controller FCW_2V, FCW_3V, FCW_VL):

Accessory essential for the fan coil unit operation, as alternative to the TLW2 remote control. The two control systems cannot be used at the same time on the same fan coil unit.

A PFW2 wired control panel can control just one fan coil unit.

The wired control panel must be installed on the wall and connected to the fan coil unit

with the cable provided loose.

The panel cable is 7,5 metres long.

The PFW2 makes it possible to set the main operating parameters of the unit. These parameters are shown on a liquid crystal display making programming operations easier.

• **WIRED CONTROL PANELS and VMF System** (Accessories essential for versions without microprocessor controller FCW_2VN, FCW_3VN, FCW_VLN):

Accessories essential for the fan coil unit operation, which then requires a cable connected accessory panel or connection to the accessories of the VMF system. The characteristics of the control panels are described on the appropriate card.

Technical data

Mod.	FCW	Vel.	212V	213V	21VL	312V	313V	31VL	412V	413V	41VL
2 PIPES SYSTEM CONFIGURATION											
Heating capacity (70°C)	(1)	W	H	4031	4031	4297	5035	5035	5245	7972	8560
	(1)	W	M	3020	3020	3660	4363	4363	4515	7234	7846
	(1)	W	L	2353	2353	2852	3256	3256	3734	6294	6444
Water flow rate	(1)	l/h	H	354	354	377	442	442	460	699	751
	(1)	l/h	M	265	265	321	383	383	396	635	688
	(1)	l/h	L	206	206	250	286	286	328	552	565
Pressure drop	(1)	kPa	H	9	9	9	29,4	29,4	15,9	32	26
	(1)	kPa	M	14	14	6	22,7	22,7	12,1	27	22
	(1)	kPa	L	24	24	4	13,4	13,4	8,6	21	16
Heating capacity (50°C)	(2)	W	H	2400	2400	2560	3000	3000	3120	4750	5100
	(2)	W	M	1800	1800	2180	2600	2600	2690	4310	4670
	(2)	W	L	1400	1400	1700	1940	1940	2220	3750	3840
Water flow rate	(2)	l/h	H	327	327	353	413	413	430	654	702
	(2)	l/h	M	249	249	299	358	358	370	593	643
	(2)	l/h	L	189	189	236	267	267	306	516	528
Pressure drop	(2)	kPa	H	21	21	8	26	26	14	28	23
	(2)	kPa	M	13	13	6	20	20	10	24	19
	(2)	kPa	L	8	8	4	12	12	7	18	14
COOLING MODE											
Total cooling capacity	(3)	W	H	1900	1900	2050	2400	2400	2500	3800	4080
	(3)	W	M	1450	1450	1740	2080	2080	2150	3450	3740
	(3)	W	L	1100	1100	1370	1550	1550	1780	3000	3070
Sensible cooling capacity	(3)	W	H	1550	1550	1730	1970	1970	2040	2850	3470
	(3)	W	M	1200	1200	1470	1680	1680	1820	2500	3100
	(3)	W	L	920	920	1160	1280	1280	1510	2010	2590
Water flow rate	(3)	l/h	H	327	327	353	413	413	430	654	702
	(3)	l/h	M	249	249	299	358	358	370	593	643
	(3)	l/h	L	189	189	236	267	267	306	516	528
Pressure drop	(3)	kPa	H	23	23	9	29	29	15	32	26
	(3)	kPa	M	14	14	7	22	22	11	27	21
	(3)	kPa	L	9	9	5	13	13	8	21	15
Air flow rate		m ³ /h	H	380	380	389	440	440	446	540	684
		m ³ /h	M	330	330	340	390	390	400	470	602
		m ³ /h	L	270	270	280	320	320	330	370	476
Fans		type									
		n°		1	1	1	1	1	1	1	1
Absorbed power		W	H	27	27	27	27	27	48	48	48
		W	M	24	24	24	23	23	41	41	41
		W	L	23	23	23	22	22	31	31	31
Max. input current	(A)			0,13	0,13	0,13	0,13	0,13	0,23	0,23	0,23
Sound power level	(4)	dB(A)	H	53	53	53	53	53	54	54	54
	(4)	dB(A)	M	48	48	48	48	48	49	49	49
	(4)	dB(A)	L	42	42	42	42	42	44	44	44
Sound pressure level	(5)	dB(A)	H	44,5	44,5	44,5	44,5	44,5	45,5	45,5	45,5
	(5)	dB(A)	M	39,5	39,5	39,5	39,5	39,5	40,5	40,5	40,5
	(5)	dB(A)	L	34,0	34,0	34,0	34,0	34,0	35,5	35,5	35,5
Water content		l									
Coil connections		ø Gas (F)		1/2" F	1/2" F	1/2" F	1/2" F	1/2" F	1/2" F	1/2" F	1/2" F
		H		V3	V3	V3	V3	V3	V3	V3	V3
Speed connected		M		V2	V2	V2	V2	V2	V2	V2	V2
		L		V1	V1	V1	V1	V1	V1	V1	V1
Power supply											230V/1/50Hz

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; DT water 10°C

2 pipes system configuration (EUROVENT)

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

Cooling mode (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

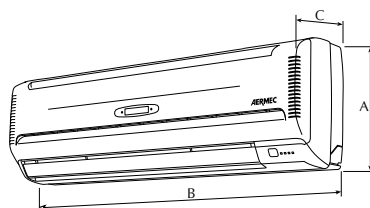
(4) **Sound power level** on the basis of measurements made in compliance with Eurovent 8/2

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

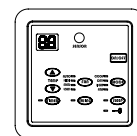
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensions (mm)

FCW		21	31	41
Height	A	298	305	360
Width	B	880	990	1172
Depth	C	205	210	220
Weight	kg	9	10	19



TLW2



PFW2

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

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



VMF

GLL10 - GLL10M - GLL10R - GLL10N
White: RAL 9010

GLL20 - GLL20R - GLL20N
White: RAL 9010

FCLMC
White: RAL 9010



Remote Control included for GLL10M
GLL10R - GLL20R

- **4 CONFIGURATIONS ON ONE CASSETTE-TYPE FAN COIL:**
 - WITH MOTORISED LOUVERS THAT CAN BE ORIENTED VIA THE REMOTE CONTROL (GLL10M ONLY)
 - WITH LOUVERS THAT CAN BE ORIENTED MANUALLY, REMOTE CONTROL
 - WITH LOUVERS THAT CAN BE ORIENTED 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 GLL10N AND GLL20N)
- 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

Compulsory 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 FCLN 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. Compulsory with GLL_M, GLL_R, GLL_N
- **SWA** : External SWA probe accessory for FMT21 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.

Compatibilità accessori

Mod. FCL		32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
GLL10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10M	(1)	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10R	(1)	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10N	(1)	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL20		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20R	(1)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20N	(1)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
FCLMC10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
FCLMC20		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
FEL10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL20	(2)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
KFLD		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFLD20	(2)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
RXLE	(1)	•	-	•	-	•	-	•	-	•	-	-	-	-	-	-
RXLE20	(1)	-	-	-	-	-	-	-	-	-	•	-	•	-	•	-
SW3	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW4	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VHL1		-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL20		-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
VHL2		-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL22		-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
SIT 3	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT 5	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT10	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PX	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PX2- PX2C6	(3)(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4 / E4D	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Compulsory with GLL_M, GLL_R, GLL_N

(2) A maximum of three KFL20 / KFL20D can be assembled on a single unit

(3) Accessories that can only be used in combination with GLL10 and GLL20 grilles.

(4) PX2C6 = Multiple package of n°6 "PX2" control panels

(5) Accessories that can only be used in combination with the GLL10N and GLL20N grilles for individual units or network master

Technical data

Mod.		FCL	Vel.	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124			
2 PIPE SYSTEM CONFIGURATION																					
Heating capacity (70°C)	(1)	W	H	3995	-	6270	-	7335	-	10487	-	11321	11877	-	17727	-	21747	-			
	(1)	W	M	2946	-	4503	-	4473	-	6373	-	7571	8118	-	11714	-	14729	-			
Water flow rate	(1)	W	L	2221	-	3423	-	3319	-	5192	-	6143	5875	-	8295	-	10531	-			
	(1)	l/h	H	350	-	550	-	643	-	920	-	993	1042	-	1555	-	1908	-			
	(1)	l/h	M	258	-	395	-	392	-	559	-	664	712	-	1027	-	1292	-			
	(1)	l/h	L	195	-	300	-	291	-	455	-	539	515	-	728	-	924	-			
Pressure drop	(1)	kPa	H	10	-	11	-	21	-	37	-	10	17	-	6	-	23	-			
	(1)	kPa	M	6	-	6	-	9	-	15	-	5	8	-	12	-	11	-			
	(1)	kPa	L	4	-	4	-	5	-	10	-	3	5	-	25	-	6	-			
Heating capacity (50°C)	(2)	W	H	2380	-	3750	-	4400	-	6250	-	6750	7100	-	10600	-	13000	-			
	(2)	W	M	1760	-	2690	-	2690	-	3830	-	4490	4850	-	7000	-	8800	-			
	(2)	W	L	1330	-	2050	-	2000	-	3050	-	3650	3500	-	4950	-	6300	-			
Water flow rate	(2)	l/h	H	327	-	516	-	679	-	857	-	939	1032	-	1548	-	1892	-			
	(2)	l/h	M	253	-	387	-	437	-	552	-	576	697	-	1015	-	1290	-			
	(2)	l/h	L	200	-	308	-	337	-	458	-	482	482	-	697	-	922	-			
	(2)	kPa	H	9	-	14	-	23	-	32	-	38	23	-	25	-	34	-			
Pressure drop	(2)	kPa	M	6	-	8	-	10	-	15	-	16	11	-	12	-	17	-			
	(2)	kPa	L	4	-	5	-	6	-	10	-	11	6	-	6	-	9	-			
	4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)																				
Heating capacity (70°C)	(3)	W	H	-	2600	-	2600	-	2820	-	3570	-	-	8500	-	10000	-	12500			
	(3)	W	M	-	2190	-	2190	-	2100	-	2810	-	-	6400	-	7300	-	9300			
	(3)	W	L	-	1950	-	1950	-	1800	-	2480	-	-	5300	-	5900	-	7050			
Water flow rate	(3)	l/h	H	-	228	-	228	-	247	-	313	-	-	746	-	877	-	1096			
	(3)	l/h	M	-	192	-	192	-	184	-	246	-	-	561	-	640	-	816			
	(3)	l/h	L	-	171	-	171	-	158	-	218	-	-	465	-	518	-	618			
Pressure drop	(3)	kPa	H	-	11	-	11	-	14	-	22,3	-	-	14	-	19	-	29			
	(3)	kPa	M	-	8	-	8	-	8	-	14,9	-	-	9	-	11	-	17			
	(3)	kPa	L	-	6	-	6	-	6	-	11,7	-	-	6	-	7	-	10			
COOLING MODE for all configuration																					
Total cooling capacity	(4)	W	H	1900	1900	3000	2770	3950	3650	4980	4610	5460	6000	6000	9000	7200	11000	8800			
	(4)	W	M	1470	1470	2250	2080	2540	2340	3210	2970	3350	4050	4050	5900	4920	7500	6220			
	(4)	W	L	1160	1160	1790	1650	1960	1810	2660	2460	2800	2800	2800	4050	3500	5360	4570			
Sensible cooling capacity	(4)	W	H	1520	1520	2400	2240	3160	2920	3810	3530	4100	4200	4200	6660	5300	8470	6770			
	(4)	W	M	1250	1250	1780	1660	1820	1680	2270	2100	2350	2770	2770	4300	3530	5730	4670			
	(4)	W	L	990	990	1390	1300	1380	1270	1860	1720	1890	1900	1900	2940	2480	4040	3370			
Water flow rate	(4)	l/h	H	327	327	516	476	679	628	857	793	939	1032	1032	1548	1238	1892	1514			
	(4)	l/h	M	253	253	387	358	437	402	552	511	576	697	697	1015	846	1290	1070			
	(4)	l/h	L	200	200	308	284	337	311	458	423	482	482	482	697	602	922	786			
Pressure drop	(4)	kPa	H	10	10	15	13	25	22	36	34,6	43	25	25	28	26	38	38			
	(4)	kPa	M	7	7	9	8	11	10	16	15,6	18	12	12	13	13	19	22			
	(4)	kPa	L	4	4	6	5	7	6	12	11,2	13	6	6	7	7	10	10			
Air flow rate		m³/h	H	600	600	600	600	700	700	880	880	900	1100	1100	1350	1350	1750	1750			
		m³/h	M	410	410	410	410	360	360	500	500	520	680	680	830	830	1100	1100			
		m³/h	L	300	300	300	300	260	260	380	380	400	460	460	560	560	750	750			
Fans		type																			
		n°		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Absorbed power		W	H	45	45	45	45	75	75	83	101	110	150	150	155	155	175	175			
		W	M	31	31	31	31	32	32	37	45	49	80	80	80	80	105	105			
		W	L	21	21	21	21	22	22	26	32	50	45	45	50	50	55	55			
Max. input current		(A)																			
Sound power level	(5)	dB(A)	H	46	46	46	46	53	53	61	61	63	50	50	54	54	60	60			
	(5)	dB(A)	M	38	38	38	38	38	38	47	47	49	43	43	45	45	50	50			
	(5)	dB(A)	L	35	35	35	35	35	35	41	41	43	39	39	40	40	44	46			
Sound pressure level	(6)	dB(A)	H	37	37	37	37	44	44	52	52	54	41	41	45	45	51	51			
	(6)	dB(A)	M	29	29	29	29	29	29	38	38	40	34	34	36	36	41	41			
	(6)	dB(A)	L	26	26	26	26	26	26	32	32	34	30	30	31	31	35	37			
Water content		l		1,2	1,2	1,5	1,5	1,5	1,5	2,1	2,1	2,1	3,0	3,0	4,5	4,5	4,5	4,5			
Water content (additiona heat exchanger)		l		-	0,3	-	0,5	-	0,5	-	0,6	-	-	1,5	-	1,5	-	1,5			
Coil connections		ø		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 (additiona heat exchanger)		ø		-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	-	1/2"	-	1/2"	-	1/2"			
Speed connected			H	V3	V3	V3	V3	V4	V4	V4	V4	V4	V4	V4	V4	V4	V4	V4			
			M	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2			
			L	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1			
Power supply										230V/1/50Hz											

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

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

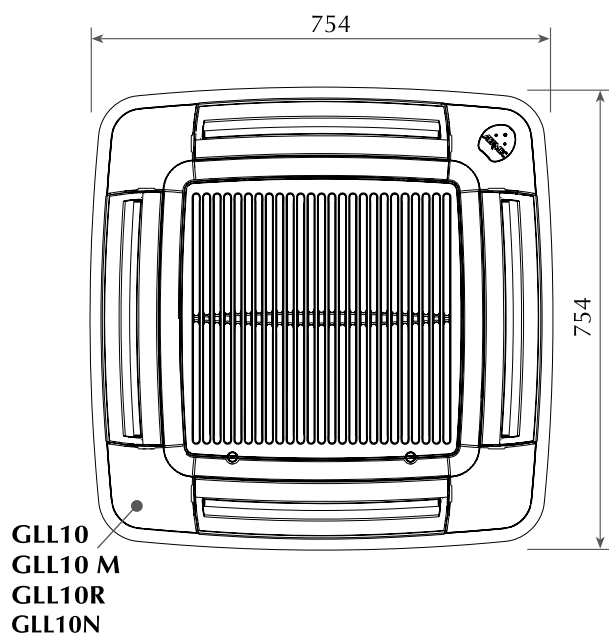
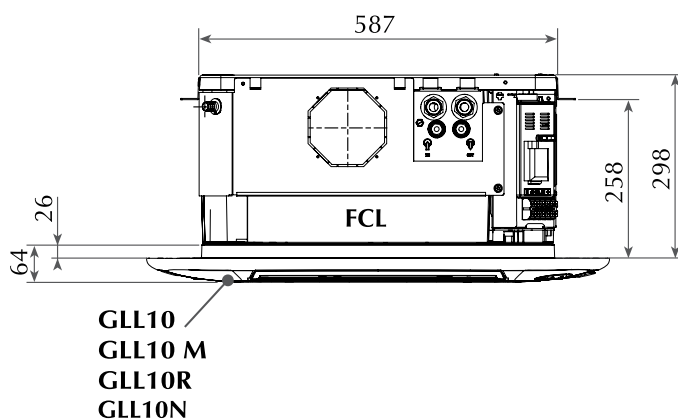
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensions (mm)

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

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

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



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

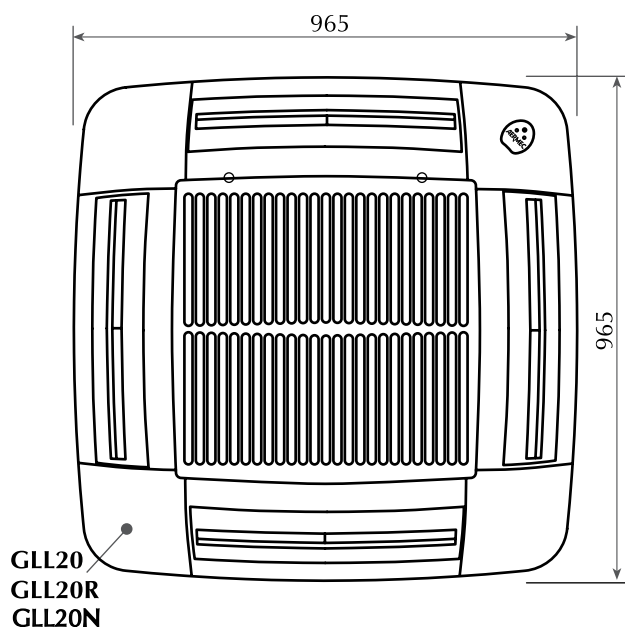
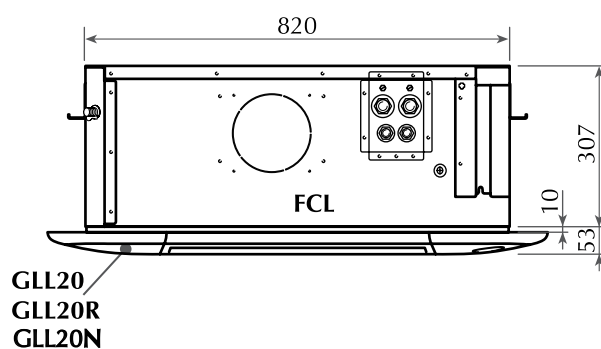
Mod. FCL		32 V2	34 V2	36 V2	38 V2	42 V2	44 V2	62 V2	64 V2	72 V2
Weight	kg	20,5	21	20,5	21	20,5	21	21	22,5	22,5

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

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

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

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



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

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

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

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

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

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

Models:
FCLI82 , FCLI122 , FCLI124



FCLI with accessory FCLMC



GLLI10 - GLLI10N
White: RAL 9010



GLLI20 - GLLI20N
White: RAL 9010



FCLMC
White: RAL 9010

Variable Multi Flow

VMF

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.

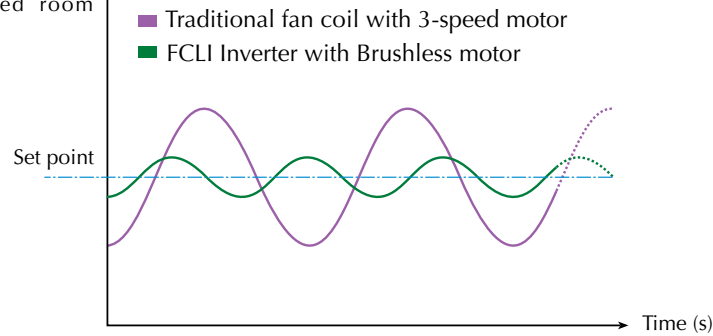
- **VMF SYSTEM WITH GLLI10N AND GLLI20N GRILLES**
- **ELECTRIC SAVINGS OF 50% COMPARED WITH A FAN COIL WITH TRADITIONAL 3-SPEED MOTOR**
- **VERY QUIET OPERATION**
- **TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATIONS IN THE AIR-CONDITIONED ROOMS**
- **STANDARD INTERNAL THREE-WAY VALVE, WITH 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

Air temperature in the air-conditioned room



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.
- **SWI** : Water temperature probe for WMT20 control panels. Cable length L = 2m.
- **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

- **SW4** : Water temperature probe for the control of maximum / minimum temperature (2-pipe system) or for the control of minimum temperature in the heating coil (4-pipe system)
- **VMF-SW1** : Water temperature probe for the control of maximum temperature in the cooling coil (4-pipe system)
- **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. FCLMC20

requires the combination with the FCLMC20IK accessory.

- **FCLMC20IK** : Installation kit for Controller Inverter, compulsory for units with **FCLMC20**.
- **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.

	Compatibility of accessories								
Mod. FCLI	32	34	42	44	62	64	82	122	124
GLLI10	•	•	•	•	•	•			
GLLI20							•	•	•
WMT20	•	•	•	•	•	•	•	•	•
GLLI10N	•	•	•	•	•	•			
GLLI20N							•	•	•
VMF-E4 *	•	•	•	•	•	•	•	•	•
FCLMC10	•	•	•	•	•	•			
FCLMC20 **							•	•	•
FCLMC20IK **							•	•	•
FEL10	•	•	•	•	•	•			
KFL	•	•	•	•	•	•			
KFL20							•	•	•
KFLD	•	•	•	•	•	•			
KFLD20							•	•	•
VHL1		•		•		•			•
VHL2		•		•		•			•
SW1	•	•	•	•	•	•	•	•	•
SW4 *	•	•	•	•	•	•	•	•	•
VMF-SW1 *		•		•		•			•

* Accessory for GLLI_N

** FCLMC20 requires the combination with the FCLMC20IK accessory

Technical data

Mod.		FCLI	Vel.	32	34	42	44	62	64	82	122	124
2 PIPE SYSTEM CONFIGURATION												
Heating capacity (70°C)	(1)	W	H	3995	-	7335	-	10487	-	11877	21747	-
	(1)	W	M	2946	-	4473	-	6373	-	8118	14729	-
Water flow rate	(1)	W	L	2221	-	3319	-	5192	-	5875	10531	-
	(1)	l/h	H	350	-	643	-	920	-	1042	1908	-
	(1)	l/h	M	258	-	392	-	559	-	712	1292	-
Pressure drop	(1)	l/h	L	195	-	291	-	455	-	515	924	-
	(1)	kPa	H	10	-	21	-	37	-	17	23	-
	(1)	kPa	M	6	-	9	-	15	-	8	11	-
Heating capacity (50°C)	(1)	kPa	L	4	-	5	-	10	-	5	6	-
	(2)	W	H	2380	-	4400	-	6250	-	7100	13000	-
	(2)	W	M	1760	-	2690	-	3830	-	4850	8800	-
Water flow rate	(2)	W	L	1330	-	2000	-	3050	-	3500	6300	-
	(2)	l/h	H	327	-	679	-	857	-	1032	1892	-
	(2)	l/h	M	253	-	437	-	552	-	697	1290	-
Pressure drop	(2)	l/h	L	200	-	337	-	458	-	482	922	-
	(2)	kPa	H	9	-	23	-	32	-	23	34	-
	(2)	kPa	M	6	-	10	-	15	-	11	17	-
	(2)	kPa	L	4	-	6	-	10	-	6	9	-
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)												
Heating capacity (70°C)	(3)	W	H	-	2600	-	2820	-	3570	-	-	12500
	(3)	W	M	-	2190	-	2100	-	2810	-	-	9300
	(3)	W	L	-	1950	-	1800	-	2480	-	-	7050
Water flow rate	(3)	l/h	H	-	228	-	247	-	313	-	-	1096
	(3)	l/h	M	-	192	-	184	-	246	-	-	816
	(3)	l/h	L	-	171	-	158	-	218	-	-	618
Pressure drop	(3)	kPa	H	-	11	-	14	-	22,3	-	-	29
	(3)	kPa	M	-	8	-	8	-	14,9	-	-	17
	(3)	kPa	L	-	6	-	6	-	11,7	-	-	10
COOLING MODE for all configuration												
Total cooling capacity	(4)	W	H	1900	1900	3950	3650	4980	4610	6000	11000	8800
	(4)	W	M	1470	1470	2540	2340	3210	2970	4050	7500	6220
	(4)	W	L	1160	1160	1960	1810	2660	2460	2800	5360	4570
Sensible cooling capacity	(4)	W	H	1520	1520	3160	2920	3810	3530	4200	8470	6770
	(4)	W	M	1250	1250	1820	1680	2270	2100	2770	5730	4670
	(4)	W	L	990	990	1380	1270	1860	1720	1900	4040	3370
Water flow rate	(4)	l/h	H	327	327	679	628	857	793	1032	1892	1514
	(4)	l/h	M	253	253	437	402	552	511	697	1290	1070
	(4)	l/h	L	200	200	337	311	458	423	482	922	786
Pressure drop	(4)	kPa	H	10	10	25	22	36	34,6	25	38	38
	(4)	kPa	M	7	7	11	10	16	15,6	12	19	22
	(4)	kPa	L	4	4	7	6	12	11,2	6	10	10
Air flow rate		m³/h	H	600	600	700	700	880	880	1100	1750	1750
		m³/h	M	414	414	358	358	500	500	659	1127	1127
		m³/h	L	280	280	263	263	380	380	464	737	737
Fans		type						centrifugal				
		n°		1	1	1	1	1	1	1	1	1
Absorbed power		W	H	18	18	55	55	55	61	32	133	133
		W	M	13	13	16	16	16	20	11	15	15
		W	L	10	10	12	12	12	14	8	11	11
Max. input current	(A)		0,28	0,28	0,43	0,43	0,47	0,47	0,71	0,80	0,80	
Sound power level	(5)	dB(A)	H	46	46	53	53	61	61	50	60	60
	(5)	dB(A)	M	38	38	38	38	47	47	43	50	50
	(5)	dB(A)	L	35	35	35	35	41	41	39	44	46
Sound pressure level	(6)	dB(A)	H	37	37	44	44	52	52	41	51	51
	(6)	dB(A)	M	29	29	29	29	38	38	34	41	41
	(6)	dB(A)	L	26	26	26	26	32	32	30	35	37
Water content	l		1,2	1,2	1,5	1,5	2,1	2,1	3,0	4,5	4,5	
Water content (additiona heat exchanger)	l		-	0,3	-	0,5	-	0,6	-	-	-	1,5
Coil connections	ø		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Coil connections (additiona heat exchanger)	ø		-	1/2"	-	1/2"	-	1/2"	-	-	-	1/2"
Signal 0-10V		H	9V	9V	9V	9V			9V	9V	9V	
		M	6.2V	6.2V	4,6V	4,6V			5,4V	5,8V	5,8V	
		L	4.2V	4.2V	3,4V	3,4V	3,8V		3,8V	3,8V	3,8V	
Power supply							230V/1/50Hz					

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

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

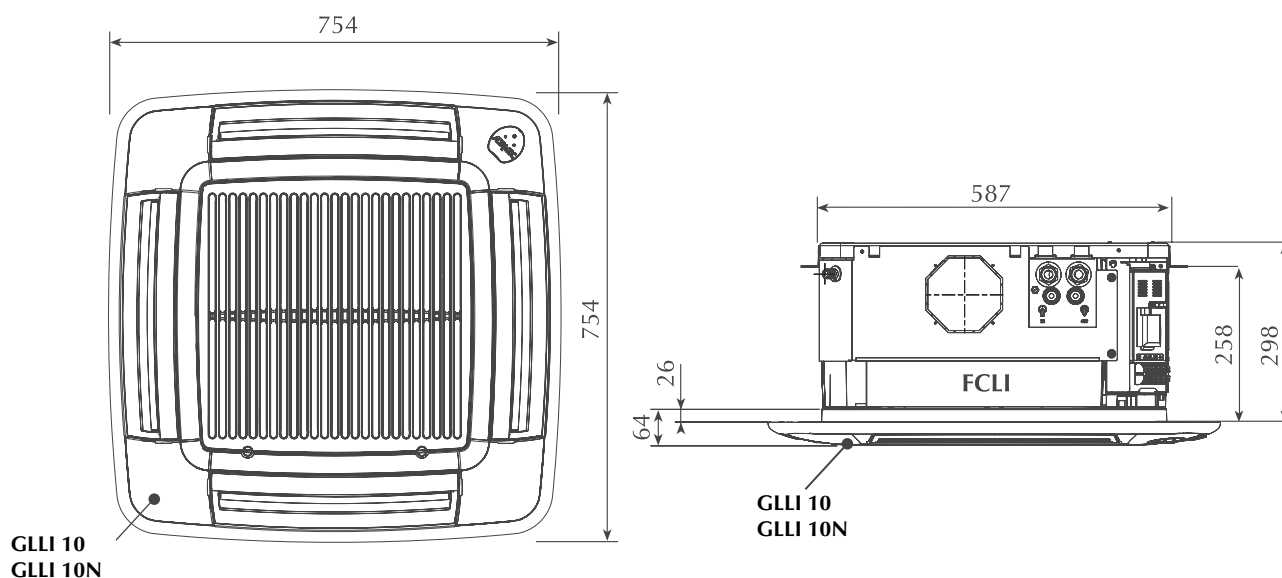
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

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

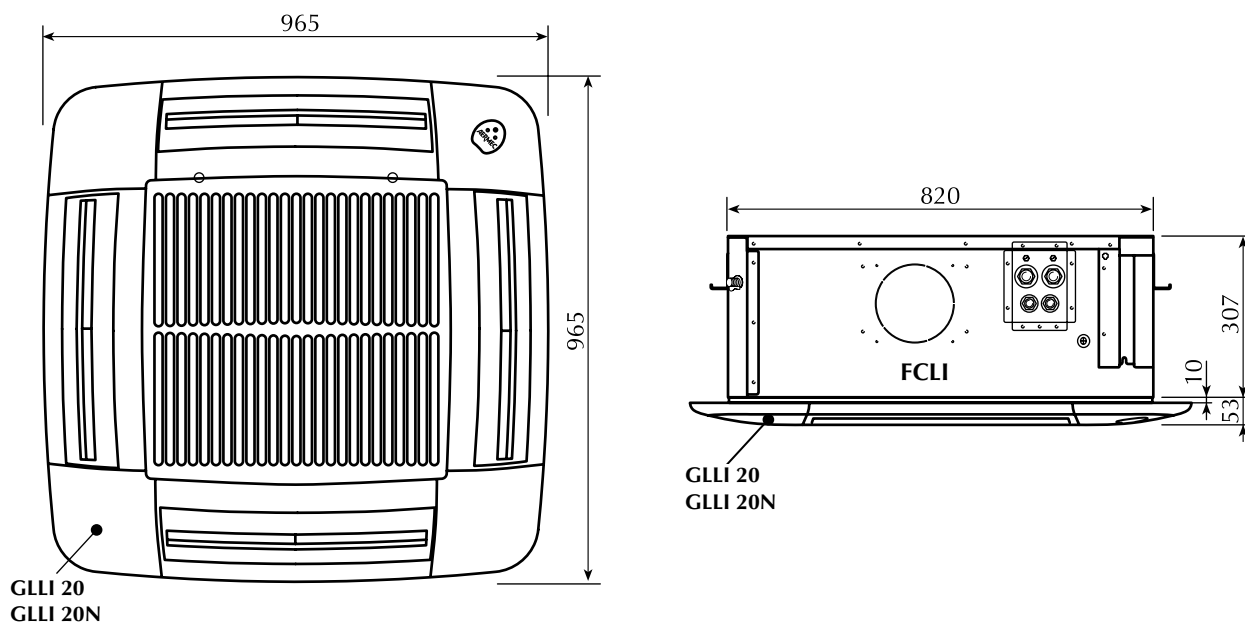
Mod. FCLI		32 V2	34 V2	42 V2	44 V2	62 V2	64 V2
Weight	kg	20,5	21	20,5	21	21	22,5

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

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Telephone 0442633111 - Telefax 044293730
www.aermec.com

FHX Fan coils With germicidal lamp



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



FHX-UV
FHX-UVPO



FHX-UV

☐ Cabinet RAL 9002
☐ heatboard RAL 7044



VMF

- **GERMICIDAL LAMP INCORPORATED**
- **ESSENTIAL IN ENVIRONMENTS THAT REQUIRE THE HIGHEST LEVELS OF HYGIENE**
- **3 ROW COIL**

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

- **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 6/7 speeds (3 selectable).
- 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-UV and UVPO: requires external control panel.
- FHX-UV: The control panel may be fitted on board the unit or externally.
- 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

- **AMP20:** kit for the wall mounting installation
- **BC:** Auxiliary condensate drip tray.
- **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.

Compulsory accessories to choose from

- **PXAE:** Electronic thermostat simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds, manual or automatic control). Continuous or thermostated ventilation. Wall installation.
- **PXAI:** Electronic thermostat simplified controls with only 2 selectors for adjusting temperature and fan speed (3 speeds, manual or automatic control). Water temperature sensor included.
- **Control panels and VMF System:** the characteristics are described on the appropriate card.

Accessories		Size (FHX)						Versions
		22	32	42	50	62	82	
AMP	20	•	•	•	•	•		UVP-UVPO
	4	•	•	•	•	•	•	UV-UVP-UVPO
	5	•	•	•	•			UV-UVP-UVPO
BC	6					•	•	UV-UVP-UVPO
	8	(1)	•	•	•			UVP-UVPO
	9	(1)				•	•	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
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					•	•	UV
PM	22	•						UVP-UVPO
	32		•					UVP-UVPO
	42			•	•			UVP-UVPO
	62					•	•	UVP-UVPO
PXAE	(2)	•	•	•	•	•	•	UV-UVP-UVPO
PXAI	(2)	•	•	•	•	•	•	UV

Accessories		Size (FHX)						Versions
		22	32	42	50	62	82	
RD	22	•						UVP-UVPO
	32		•					UVP-UVPO
	42			•	•			UVP-UVPO
	62					•	•	UVP-UVPO
RDA	22	•						UVP-UVPO
	32		•					UVP-UVPO
	42			•	•			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	(3)	•					UVP-UVPO
	30X	(3)		•				UVP-UVPO
	40X	(3)			•	•		UVP-UVPO
	80X	(3)				•	•	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

(1) BC8 and BC9 are not applicable to fan coils with cover cabinets

(2) compulsory accessory

(2) SE accessories are matched with ZX feet

Technical data

Mod.		Vel.	FHX22	FHX32	FHX42	FHX50	FHX62	FHX82
2 PIPES SYSTEM CONFIGURATION								
Heating capacity (70°C)	(1)	W	H	3227	5322	6618	8138	12032
	(1)	W	M	2568	4347	5521	6651	8718
	(1)	W	L	1780	3492	4062		6685
Water flow rate	(1)	l/h	H	283	467	580	714	1055
	(1)	l/h	M	225	381	484	583	765
	(1)	l/h	L	156	306	356	0	586
Pressure drop	(1)	kPa	H	7	15	6	15	21
	(1)	kPa	M	4	10	11	10	9
	(1)	kPa	L	2	7	15		5
Heating capacity (50°C)	(2)	W	H	1920	3160	3960	4870	7090
	(2)	W	M	1530	2570	3300	3990	5190
	(2)	W	L	1060	2060	2430	2820	3970
Water flow rate	(2)	l/h	H	258	413	585	721	836
	(2)	l/h	M	210	316	478	604	705
	(2)	l/h	L	144	246	358	432	519
Pressure drop	(2)	kPa	H	8	15	12	16	20
	(2)	kPa	M	6	11	9	13	14
	(2)	kPa	L	3	7	5	8	7
COOLING MODE								
Total cooling capacity	(3)	W	H	1500	2400	3400	4190	4860
	(3)	W	M	1220	1840	2780	3510	4100
	(3)	W	L	840	1430	2080	2510	3020
Sensible cooling capacity	(3)	W	H	1240	1900	2500	3000	4240
	(3)	W	M	1000	1440	2020	2540	3300
	(3)	W	L	670	1110	1500	1790	2440
Water flow rate	(3)	l/h	H	258	413	585	721	836
	(3)	l/h	M	210	316	478	604	705
	(3)	l/h	L	144	246	358	432	519
Pressure drop	(3)	kPa	H	8	17	14	23	23
	(3)	kPa	M	6	13	10	16	16
	(3)	kPa	L	3	9	6	9	8
Air flow rate		m³/h	H	290	450	600	720	920
		m³/h	M	220	350	460	600	720
		m³/h	L	140	260	330	400	520
Fans		type				Centrifugal		
		n°		1	2	2	2	3
Absorbed power		W	H	25	44	57	67	82
		W	M	22	33	43	46	61
		W	L	19	25	30	34	40
Absorbed power with germicidal lamp		W	H	50	69	82	92	182
		W	M	47	58	68	71	161
		W	L	44	50	55	59	140
Total input power (UV/UVF)	A			0,24	0,33	0,4	0,47	0,84
Total input power (UVPO)	A			0,37	0,57	0,63	0,48	0,92
Sound power level	(4)	dB(A)	H	48	48	51	56	55
	(4)	dB(A)	M	41	41	44	51	49
	(4)	dB(A)	L	31	34	37	42	40
Sound pressure level	(5)	dB(A)	H	39,5	39,5	42,5	47,5	46,5
	(5)	dB(A)	M	32,5	32,5	35,5	42,5	40,5
	(5)	dB(A)	L	22,5	25,5	28,5	33,5	31,5
Water content		l		0,79	1,11	1,48	1,48	2,52
Coil connections		ø		1/2"	1/2"	3/4"	3/4"	3/4"
Speed connected			H	V3	V3	V3	V3	V3
			M	V2	V2	V2	V2	V2
			L	V1	V1	V1	V1	V1
Power supply						230V/1/50Hz		

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; DT water 10°C

2 pipes system configuration (EUROVENT)

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

Cooling mode (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

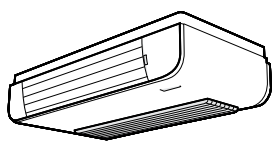
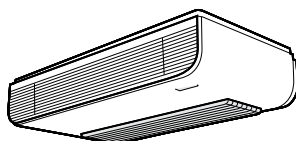
(4) **Sound power level** on the basis of measurements made in compliance with Eurovent 8/2

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

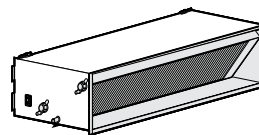
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensions (mm)

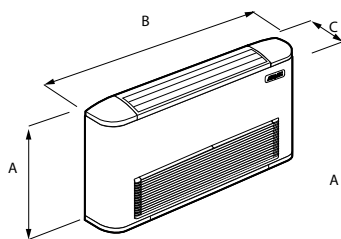
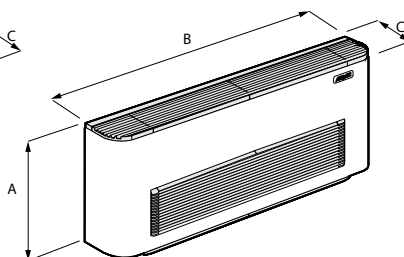
wall-mounted model with cabinet



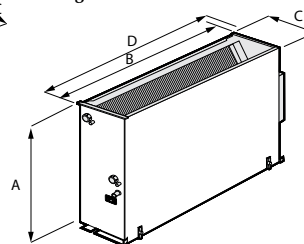
wall-mounted model without cabinet



universal free-standing or wall/ceiling mounting with cabinet



universal free-standing or wall/ceiling mounting without cabinet



FHX22-32-42-50UV

FHX62-82UV

FHX22-32-42-5062-82UVP/UVPO

Mod FHX_UV		22	32	42	50	62	82
Height	A	520	520	520	520	590	590
Width	B	750	980	1200	1200	1320	1320
Depth	C	220	220	220	220	220	220
Weight	kg	16	26	25	25	35	35

Mod FHX_UVP/UVPO		22	32	42	50	62	82
Height	A	453	453	453	453	453	453
Width	B	522	753	973	973	1122	1122
	D (6)	572	823	1043	1043	1205	1205
Depth	C	216	216	216	216	216	216
Weight	kg	16	26	25	25	35	35

(6) Maximum size (including the electrical box)

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

Variable Multi Flow

VMF



Aermec participates in the EUROVENT Certification Programme FCP / 2 / H.
The products of interest can be found on the site:
www.eurovent-certification.com



- **LARGE RANGE OF ACCESSORIES**
- **HORIZONTAL OR VERTICAL INSTALLATION**
- **COMPATIBLE WITH THE VMF SYSTEM**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 ROW HEATING ONLY COIL (ACCESSORY BV)**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **6/7 SPEED FAN ASSEMBLY**
- **CENTRIFUGAL FANS IN ANTI-STATIC PLASTIC MATERIAL**
- **ACCESSIBLE FAN ASSEMBLY**
- **INTERNAL INSULATION WITH FIRE RETARDANT PROTECTION TO CLASS 1**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

Unit selection

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

Configuration fields:

1 2 3	4	5	6
Code	Size	Main Coil	0

Example:

1 2 3	4	5	6
VED	0	3	0

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

Characteristics

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

Accessories

DUCTING ACCESSORIES

Plenum in galvanised sheet steel and connections:

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

Discharge and intake grilles:

- **GA**: Intake grille with fixed louvres.
- **GAF**: Intake grille with fixed louvres with filter.
- **GM**: Discharge grille with adjustable louvres.
- **SE**: External air damper with manual control.

INSTALLATION ACCESSORIES

- **AMP**: Hanging kit.
- **BC**: auxiliary condensate drain tray.
- **DSC4**: Condensate pump to overcome lifts.

- **ZX**: Feet for recessed installation.

HEATING ONLY COIL

- **BV**: 1 row heating only coil.

WATER VALVES

For main coil, 230V~50 Hz / 24V~50 Hz

- **VCF43 / 4324**: Kit composed of 3-way motorised valve with insulating casing, connections and insulated copper tubes.
- **VCFD3 / 324**: Kit composed of 2-way motorised valve with insulating casing, connections and insulated copper tubes.

For heating only coil, 230V~50 Hz / 24V~50 Hz

- **VCF45 / 4543**: Kit composed of 3-way motorised valve, with connections and insulated copper tubes.
- **VCFD4 / 424**: Kit composed of 2-way motorised valve, with connections and insulated copper tubes.
- **VCF3X4**: Valve kit for 4 pipe systems and fan coil units with single coil and 2 connections.

Kit composed of special 3 way motorised valve with insulating casing, connections and insulated copper tubes.

Version VCF3X4L for left hand connection fan coils.

Version VCF3X4R for right hand connection fan coils.

Power supply 230V ~ 50Hz.

CONTROL PANELS

The complete characteristics of the control panels are described in the dedicated files.

Some control panels require combination with other accessories; consult the relevant documentation.

ACCESSORIES TO COMBINE TO CONTROL PANELS

- **SIT 3 - 5**: Thermostat Interface Boards. Allows networking of fan coil units (10 max) controlled by a central panel (switch or thermostat).

SIT3: Controls the 3 speeds of the fan and must be installed on each fan coil unit on the network; receives controls from the switch or the SIT5 board.

SIT5: Thermostat interface board. Allows a network of VED units (3 max) controlled by a single panel PXAE.

- **SW3**: Water temperature sensor for control panel PXAE.

- **SWA**: Air and water temperature sensor for control panel FMT21.

VARIABLE MULTI FLOW SYSTEM

VMF System: The complete characteristics of the VMF system are described in the dedicated files.

Some VMF components require combination with other accessories; consult the relevant documentation.

Accessory Compatibility

Mod.VED	030	040	130	140	230	240	330	340
RDA000V	•	•						
RDA100V			•	•				
RDA200V					•	•		
RDA300V							•	•
RPA000V ***	•	•						
RPA100V ***			•	•				
RPA200V ***					•	•		
RPA300V ***							•	•
RDAC000V	•	•						
RDAC100V			•	•				
RDAC200V					•	•		
RDAC300V							•	•
PA000V ***	•	•						
PA100V ***			•	•				
PA200V ***					•	•		
PA300V ***							•	•
PM000V ***	•	•						
PM100V ***			•	•				
PM200V ***					•	•		
PM300V ***							•	•
RPM000V ***	•	•						
RPM100V ***			•	•				
RPM200V ***					•	•		
RPM300V ***							•	•
RDMC000V	•	•						
RDMC100V			•	•				
RDMC200V					•	•		
RDMC300V							•	•
BV030	•							
BV130			•					
BV230					•			
BV162							•	
KFV10	•	•	•	•	•	•	•	•
VMF-EO	•	•	•	•	•	•	•	•
VMF-E1	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
VMF-E4/E4D	•	•	•	•	•	•	•	•
VMF-E5N/E5B	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•
FMT21	•	•	•	•	•	•	•	•
TPF	•	•	•	•	•	•	•	•

Mod.VED	030	040	130	140	230	240	330	340
SWA	•	•	•	•	•	•	•	•
KTLP	•	•	•	•	•	•	•	•
PX	•	•	•	•	•	•	•	•
PX2 - PX2C6	•	•	•	•	•	•	•	•
PXAR	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•
WMT05	•	•	•	•	•	•	•	•
WMT06	•	•	•	•	•	•	•	•
WMT10	•	•	•	•	•	•	•	•
SW3	•	•	•	•	•	•	•	•
SIT3	•	•	•	•	•	•	•	•
SIT5	•	•	•	•	•	•	•	•
VCF43-4324 *	•	•	•	•	•	•	•	•
VCF45-4524 *	•		•		•		•	
VCFD3-324 *	•	•	•	•	•	•	•	•
VCFD4-424 *	•		•		•		•	
VCF3X4R	•	•	•	•	•	•	•	•
VCF3X4L	•	•	•	•	•	•	•	•
AMP	•	•	•	•	•	•	•	•
BC4 * / **	•	•	•	•	•	•	•	•
BC6 **	•	•	•	•	•	•	•	•
BC9 **	•	•	•	•	•	•	•	•
DSC4 **	•	•	•	•	•	•	•	•
GA22	•	•						
GA32			•	•				
GA42					•	•		
GA62							•	•
GAF22	•	•						
GAF32			•	•				
GAF42					•	•		
GAF62							•	•
GM22	•	•						
GM32			•	•				
GM42					•	•		
GM62							•	•
SE20X ****	•	•						
SE30X ****			•	•				
SE40X ****					•	•		
SE80X ****							•	•
ZX7	•	•	•	•	•	•		
ZX8							•	•

* The valve kits VCF and the drain pan BC4 cannot be installed together on the same fan coil unit.

** The accessory DSC4 is not compatible with AMP and BC4 - BC6 - BC9.

*** All the Plenums (RPA_V; PA_V; RPM_V; PM_V) have a circular push-outs (Ø=150mm) on both sides, which can be removed and used with accessories.

All the Plenums (RPA_V; PA_V; RPM_V; PM_V) can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

**** Accessories SE must be combined with the feet ZX.

Technical data

Mod.	VED	Vel.	30	40	130	140	230	240	330	340
2 PIPE SYSTEM CONFIGURATION										
Heating capacity (70°C)	(1)	W	H	3688	3916	6289	6575	7160	7909	10507
	(1)	W	M	3374	3568	5833	6089	6500	7141	9343
	(1)	W	L	1820	2366	4397	4518	5350	5800	7813
Water flow rate	(1)	l/h	H	323	343	551	576	616	684	921
	(1)	l/h	M	296	313	511	534	559	616	819
	(1)	l/h	L	160	207	385	396	460	499	685
Pressure drop	(1)	kPa	H	9	12	26	18	37	3	16
	(1)	kPa	M	7	10	22	16	30	26	13
	(1)	kPa	L	3	4	13	9	27	18	9
Heating capacity (50°C)	(2)	W	H	2180	2340	3750	3940	4320	4750	6270
	(2)	W	M	1990	2130	3480	3650	3920	4290	5580
	(2)	W	L	1100	1410	2620	2710	3230	3450	4670
Water flow rate	(2)	l/h	H	279	327	516	566	588	691	860
	(2)	l/h	M	250	296	480	525	538	624	760
	(2)	l/h	L	170	193	358	390	445	499	633
Pressure drop	(2)	kPa	H	8	12	27	19	35	31	16
	(2)	kPa	M	7	10	23	16	29	26	13
	(2)	kPa	L	3	5	13	9	20	13	9
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)										
Heating capacity (70°C)	(3)	W	H	2220	-	3780	-	4493	-	5888
	(3)	W	M	2080	-	3596	-	4171	-	5499
	(3)	W	L	1590	-	2946	-	3675	-	4896
Water flow rate	(3)	l/h	H	196	-	331	-	394	-	515
	(3)	l/h	M	183	-	315	-	366	-	482
	(3)	l/h	L	140	-	258	-	322	-	429
Pressure drop	(3)	kPa	H	8	-	28	-	16	-	26
	(3)	kPa	M	7	-	25	-	14	-	23
	(3)	kPa	L	5	-	17	-	11	-	19
COOLING MODE for all configuration										
Total cooling capacity	(4)	W	H	1620	1900	3000	3290	3420	4020	5000
	(4)	W	M	1450	1720	2790	3050	3130	3630	4420
	(4)	W	L	990	1120	2080	2270	2590	2900	3680
Sensible cooling capacity	(4)	W	H	1240	1350	2090	2370	2700	3020	3740
	(4)	W	M	1120	1230	1940	2190	2440	2720	3340
	(4)	W	L	750	810	1440	1610	2000	2200	2800
Water flow rate	(4)	l/h	H	279	327	516	566	588	691	860
	(4)	l/h	M	250	296	480	525	538	624	760
	(4)	l/h	L	170	193	358	390	445	499	633
Pressure drop	(4)	kPa	H	8,6	14,3	31,4	23,2	43,6	36,8	18,2
	(4)	kPa	M	7,2	11,9	27,2	20	36,1	30,7	14,2
	(4)	kPa	L	3,2	5,4	15,3	11	24,9	15,7	9,9
Air flow rate		m ³ /h	H	285	277	433	420	590	570	805
		m ³ /h	M	256	249	397	386	524	509	704
		m ³ /h	L	161	160	287	280	417	406	572
Fans		type					centrifugal			
		n°		1	1	2	2	2	3	3
High static pressure		Pa	H	61	61	60	60	64	63	66
		Pa	M	50	50	50	50	50	50	50
		Pa	L	21	21	26	26	32	32	34
Absorbed power		W	H	59	58	76	75	93	92	104
		W	M	38	38	53	52	57	57	75
		W	L	23	23	34	34	43	43	63
Max. input current	(A)		0,37	0,37	0,41	0,41	0,58	0,58	0,66	0,66
Sound power level (inle+radiator)	(5)	dB(A)	H	54	54	55	55	57	57	58
	(5)	dB(A)	M	52	52	53	53	54	54	55
	(5)	dB(A)	L	39	39	45	45	44	44	38
Sound power level (outlet)	(5)	dB(A)	H	50	50	50	50	52	52	54
	(5)	dB(A)	M	48	48	48	48	49	49	51
	(5)	dB(A)	L	34	34	39	39	39	39	34
Water content		l								
Water content (additiona heat exchanger)		l								
Coil connections		ø Gas (F)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Coil connections (additiona heat exchanger)		ø Gas (F)	1/2"	-	1/2"	-	1/2"	-	1/2"	-
Speed connected		H	V6	V6	V6	V6	V6	V6	V6	V7
		M	V4	V4	V4	V4	V3	V3	V3	V3
		L	V1	V1	V1	V1	V1	V1	V1	V1
Power supply							230V/1/50Hz			

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

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

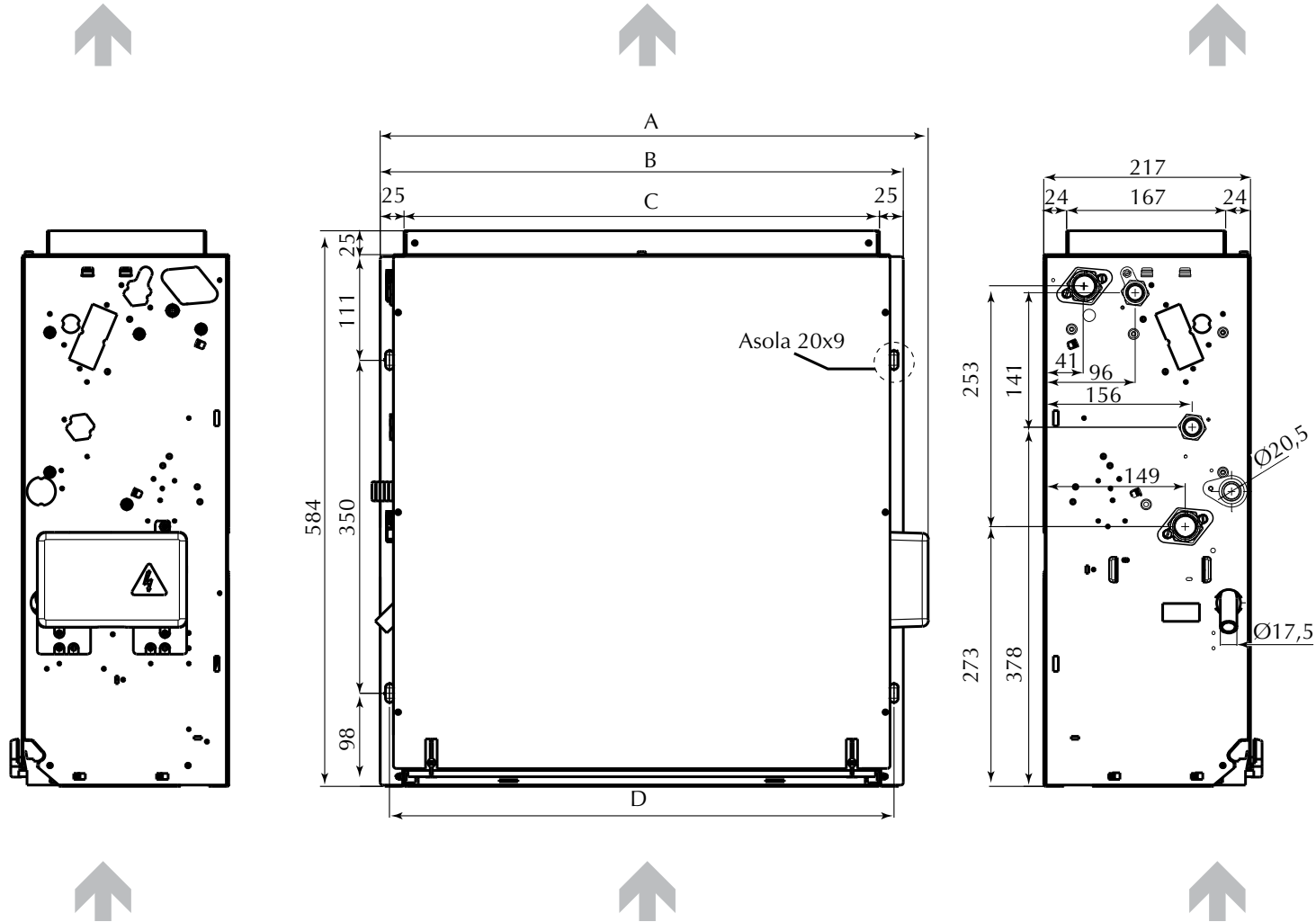
VED30÷240

V1	V2	V3	V4	V5	V6	Speed
L6	L5	L4	L3	L2	L1	motor connected

V1	V2	V3	V4	V5	V6	V7
L7	L6	L5	L4	L3	L2	L1

VED330÷340

VED: 030 - 040 - 130 - 140 - 230 - 240 - 330 - 340



VED		030	040	130	140	230	240	330	340
A	mm	576	576	807	807	1027	1027	1148	1148
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	500	500	731	731	951	951	1072	1072
D	mm	530	530	761	761	981	981	1102	1102
Net weight	kg	20	21	23	24	29,5	32	32,5	34

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

Variable Multi Flow

VMF



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



- **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 Code	4 Size	5 Main coil n°. rows	6 Heating only coil n°. rows
1 2 3 VED	4 5	5 3	6 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	Vel.	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
2 PIPE SYSTEM CONFIGURATION																			
Heating capacity (70°C)	(1)	W	H	15974	-	18110	-	17572	-	19908	-	27016	-	32688	-	28999	-	31706	-
	(1)	W	M	13845	-	15358	-	16467	-	18586	-	22672	-	27744	-	25364	-	27650	-
	(1)	W	L	10469	-	11445	-	13802	-	15377	-	18628	-	22454	-	21178	-	22883	-
	(1)	l/h	H	1401	-	1588	-	1541	-	1746	-	2370	-	2867	-	2544	-	2781	-
Water flow rate	(1)	l/h	M	1214	-	1347	-	1444	-	1630	-	1989	-	2434	-	2225	-	2425	-
	(1)	l/h	L	918	-	1004	-	1211	-	1349	-	1634	-	1970	-	1858	-	2007	-
Pressure drop	(1)	kPa	H	19	-	24	-	21	-	29	-	58	-	38	-	67	-	46	-
	(1)	kPa	M	14	-	18	-	18	-	25	-	43	-	29	-	55	-	36	-
	(1)	kPa	L	9	-	11	-	13	-	18	-	30	-	19	-	38	-	26	-
Heating capacity (50°C)	(2)	W	H	9470	-	10700	-	10420	-	11820	-	16070	-	17930	-	17280	-	19150	-
	(2)	W	M	8250	-	9130	-	9780	-	11050	-	13500	-	14940	-	15120	-	16680	-
	(2)	W	L	6200	-	6810	-	8190	-	9170	-	11100	-	11980	-	12640	-	13840	-
	(2)	l/h	H	1195	-	1378	-	1335	-	1543	-	2155	-	2611	-	2382	-	2766	-
Water flow rate	(2)	l/h	M	1058	-	1214	-	1271	-	1469	-	1840	-	2195	-	2098	-	2448	-
	(2)	l/h	L	805	-	918	-	1060	-	1278	-	1529	-	1794	-	1789	-	2057	-
Pressure drop	(2)	kPa	H	17	-	19	-	16	-	23	-	48	-	36	-	57	-	35	-
	(2)	kPa	M	11	-	15	-	15	-	21	-	36	-	27	-	44	-	28	-
	(2)	kPa	L	7	-	9	-	11	-	16	-	26	-	19	-	33	-	21	-
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)																			
Heating capacity (70°C)	(3)	W	H	-	12090	-	8160	-	13540	-	8850	-	20513	-	13750	-	22174	-	14500
	(3)	W	M	-	10725	-	7480	-	12850	-	8520	-	17726	-	12370	-	19726	-	13300
	(3)	W	L	-	8280	-	6190	-	10720	-	7475	-	14665	-	10770	-	16728	-	11830
	(3)	l/h	H	-	1060	-	716	-	1188	-	776	-	1799	-	1206	-	1945	-	1272
Water flow rate	(3)	l/h	M	-	940,7	-	656	-	1127	-	747	-	1555	-	1085	-	1730	-	1167
	(3)	l/h	L	-	726,2	-	543	-	940	-	656	-	1286	-	945	-	1467	-	1038
Pressure drop	(3)	kPa	H	-	18	-	28	-	22	-	32	-	28	-	28	-	33	-	30
	(3)	kPa	M	-	14	-	24	-	20	-	30	-	22	-	23	-	26	-	26
	(3)	kPa	L	-	9	-	17	-	14	-	24	-	16	-	18	-	20	-	21
COOLING MODE for all configuration																			
Total cooling capacity	(4)	W	H	6950	6950	8010	8010	7760	7760	8970	8970	12530	12530	15180	15180	13850	13850	16080	16080
	(4)	W	M	6150	6150	7060	7060	7390	7390	8540	8540	10700	10700	12760	12760	12200	12200	14230	14230
	(4)	W	L	4680	4680	5340	5340	6160	6160	7430	7430	8890	8890	10430	10430	10400	10400	11960	11960
	(4)	W	H	5360	5360	5730	5730	6020	6020	6450	6450	10300	10300	10660	10660	11440	11440	11320	11320
Sensible cooling capacity	(4)	W	M	4710	4710	5040	5040	5710	5710	6130	6130	8750	8750	8910	8910	9990	9990	9970	9970
	(4)	W	L	3540	3540	3780	3780	4720	4720	5040	5040	7220	7220	7240	7240	8480	8480	8340	8340
Water flow rate	(4)	l/h	H	1195	1195	1378	1378	1335	1335	1543	1543	2155	2155	2611	2611	2382	2382	2766	2766
	(4)	l/h	M	1058	1058	1214	1214	1271	1271	1469	1469	1840	1840	2195	2195	2098	2098	2448	2448
	(4)	l/h	L	805	805	918	918	1060	1060	1278	1278	1529	1529	1794	1794	1789	1789	2057	2057
	(4)	kPa	H	17	17	22	22	21	21	28	28	48	48	41	41	58	58	45	45
Pressure drop	(4)	kPa	M	13	13	17	17	19	19	25	25	36	36	30	30	46	46	37	37
	(4)	kPa	L	8	8	10	10	12	12	19	19	26	26	21	21	35	35	27	27
Air flow rate		m ³ /h	H	1350	1250	1340	1250	1520	1460	1500	1460	2210	2110	2440	2110	2410	2350	2350	2350
		m ³ /h	M	1130	1060	1100	1060	1400	1360	1380	1360	1800	1730	2004	1730	2040	2000	2000	2000
		m ³ /h	L	790	750	780	750	1120	1060	1100	1060	1380	1340	1567	1340	1640	1600	1600	1600
Fans		tipo																	
		n°		2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
High static pressure		Pa	H	72	70	70	70	58	56	56	56	75	75	75	75	69	69	69	69
		Pa	M	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
		Pa	L	24	25	24	25	32	32	32	32	30	30	30	30	32	32	32	32
		W	H	228	215	222	215	270	266	267	266	339	340	340	340	371	372	371	372
Absorbed power		W	M	175	175	178	175	232	229	230	229	268	264	260	264	285	288	285	288
		W	L	137	130	135	130	175	170	172	170	224	223	220	223	234	227	234	227
Max. input current		(A)																	
Sound power level (inle+radiator)	(5)	dB(A)	H	53		61		62		62		68		59		64		68	
	(5)	dB(A)	M	57		57		59		59		64		59		66		66	
	(5)	dB(A)	L	42		51		53		53		59		51		62		62	
Sound power level (outlet)	(5)	dB(A)	H	49		57		58		58		64		55		64		64	
	(5)	dB(A)	M	53		53		55		55		60		52		62		62	
	(5)	dB(A)	L	38		47		49		49		55		47		58		58	
Water content		l																	
Water content (additiona heat exchanger)		l																	
Coil connections		ø Gas (F)		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 (additiona heat exchanger)		ø Gas (F)		-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"	-	1/2"
Speed connected			H	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5	V5
			M	V3	V3	V3	V3	V4	V4	V4	V4	V3	V3		V3	V3	V3	V3	V3
			L	V1	V1	V1	V1	V2	V2	V2	V2	V1	V1		V1	V1	V1	V1	V1
Power supply		v																	

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

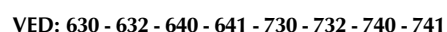
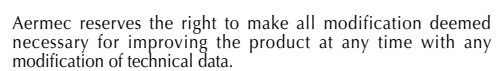
Note: The speed of associates may differ from the standard factory configuration, for more information refer to the program selection and the technical documentation available on the website www.aermec.com

VED430÷741

V1	V2	V3	V4	V5
L5	L4	L3	L2	L1

Speed

motor connected



VED | Fan coil unit with Inverter brushless motor for ducted systems Cooling capacities 0,99÷5,82kW



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Variable Multi Flow
VMF



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

Unit selection

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

Configuration fields:

1 2 3 Code	4 Size	5 Main Coil	6 Main coil only hot	7 Inverter motor
Example: 1 2 3 VED	4 0	5 3	6 0	7 1

Characteristics

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

Accessories

DUCTING ACCESSORIES

Plenum in galvanised sheet steel and connections:

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

Discharge and intake grilles:

- **GA**: Intake grille with fixed louvres.
- **GAF**: Intake grille with fixed louvres with filter.
- **GM**: Discharge grille with adjustable louvres.
- **SE**: External air damper with manual control.

INSTALLATION ACCESSORIES

- **AMP**: Hanging kit.
- **BC**: auxiliary condensate drain tray.
- **DSC4**: Condensate pump to overcome lifts.

- **ZX**: Feet for recessed installation.

HEATING ONLY COIL

- **BV**: 1 row heating only coil.

WATER VALVES

For main coil, 230V~50 Hz / 24V~50 Hz

- **VCF43 / 4324**: Kit composed of 3-way motorised valve with insulating casing, connections and insulated copper tubes.
- **VCFD3 / 324**: Kit composed of 2-way motorised valve with insulating casing, connections and insulated copper tubes.

For heating only coil, 230V~50 Hz / 24V~50 Hz

- **VCF45 / 4543**: Kit composed of 3-way motorised valve, with connections and insulated copper tubes.
- **VCFD4 / 424**: Kit composed of 2-way motorised valve, with connections and insulated copper tubes.
- **VCF3X4**: Valve kit for 4 pipe systems and fan coil units with single coil and 2 connections. Kit composed of special 3 way motorised valve with insulating casing, connections and insulated copper tubes. Version VCF3X4L for left hand connection fan coils. Version VCF3X4R for right hand connection fan coils. Power supply 230V ~ 50Hz.

Mod.VED	030I	040I	130I	140I	230I	240I	330I	340I
RDA000V	•	•						
RDA100V			•	•				
RDA200V					•	•		
RDA300V							•	•
RPA000V (1)	•	•						
RPA100V (1)			•	•				
RPA200V (1)					•	•		
RPA300V (1)							•	•
RDAC000V	•	•						
RDAC100V			•	•				
RDAC200V					•	•		
RDAC300V							•	•
PA000V (1)	•	•						
PA100V (1)			•	•				
PA200V (1)					•	•		
PA300V (1)							•	•
PM000V (1)	•	•						
PM100V (1)			•	•				
PM200V (1)					•	•		
PM300V (1)							•	•
RPM000V (1)	•	•						
RPM100V (1)			•	•				
RPM200V (1)					•	•		
RPM300V (1)							•	•
RDMC000V	•	•						
RDMC100V			•	•				
RDMC200V					•	•		
RDMC300V							•	•
BV030	•							
BV130			•					
BV230					•			
BV162							•	
KFV10	•	•	•	•	•	•	•	•
VMF-EO	•	•	•	•	•	•	•	•
VMF-E1	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5N	•	•	•	•	•	•	•	•
VMF-E4D	•	•	•	•	•	•	•	•
VMF-E5B	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•
FMT21	•	•	•	•	•	•	•	•
TPF	•	•	•	•	•	•	•	•
SWA	•	•	•	•	•	•	•	•

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

(2) The valve kits VCF and the drain pan BC4 cannot be installed together on the same fan coil unit.

(3) The accessory DSC4 is not compatible with AMP and BC4 - BC6 - BC9.

(4) Accessories SE must be combined with the feet ZX

CONTROL PANELS

The complete characteristics of the control panels are described in the dedicated files.

Some control panels require combination with other accessories; consult the relevant documentation.

ACCESSORIES TO COMBINE TO CONTROL PANELS

- **SIT 3 - 5**: Thermostat Interface Boards. Allows networking of fan coil units (10 max) controlled by a central panel (switch or thermostat).
- **SIT3**: Controls the 3 speeds of the fan and must be installed on each fan coil unit on the network; receives controls from the switch or the SIT5 board.
- **SIT5**: Thermostat interface board. Allows a network of VED units (3 max) controlled by a single panel PXAE.
- **SW3**: Water temperature sensor for control panel PXAE.
- **SWA**: Air and water temperature sensor for control panel FMT21.

VARIABLE MULTI FLOW SYSTEM

VMF System: The complete characteristics of the VMF system are described in the dedicated files.

Some VMF components require combination with other accessories; consult the relevant documentation.

Mod.VED	030I	040I	130I	140I	230I	240I	330I	340I
KTLP	•	•	•	•	•	•	•	•
PX	•	•	•	•	•	•	•	•
PX2 - PX2C6	•	•	•	•	•	•	•	•
PXAR	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•
WMT05	•	•	•	•	•	•	•	•
WMT06	•	•	•	•	•	•	•	•
WMT10	•	•	•	•	•	•	•	•
SW3	•	•	•	•	•	•	•	•
SIT3	•	•	•	•	•	•	•	•
SIT5	•	•	•	•	•	•	•	•
VCF43-4324 (2)	•	•	•	•	•	•	•	•
VCF45-4524 (2)	•	•	•	•	•	•	•	•
VCFD3-324 (2)	•	•	•	•	•	•	•	•
VCFD4-424 (2)	•	•	•	•	•	•	•	•
VCF3X4R	•	•	•	•	•	•	•	•
VCF3X4L	•	•	•	•	•	•	•	•
AMP	•	•	•	•	•	•	•	•
BC4 (2)(3)	•	•	•	•	•	•	•	•
BC6 (3)	•	•	•	•	•	•	•	•
BC9 (3)	•	•	•	•	•	•	•	•
DSC4 (3)	•	•	•	•	•	•	•	•
GA22	•	•						
GA32			•	•				
GA42					•	•		
GA62							•	•
GAF22	•	•						
GAF32			•	•				
GAF42					•	•		
GAF62							•	•
GM22	•	•						
GM32			•	•				
GM42					•	•		
GM62							•	•
SE20X (4)	•	•						
SE30X (4)			•	•				
SE40X (4)					•	•		
SE80X (4)							•	•
ZX7	•	•	•	•	•	•		
ZX8							•	•

Technical data

Mod.		VED	Vel.	30I	40I	130I	140I	230I	240I	330I	340I
2 PIPE SYSTEM CONFIGURATION											
Heating capacity (70°C)	(1)	W	H	3688	3916	6289	6575	7160	7909	10507	10951
	(1)	W	M	3374	3568	5833	6089	6500	7141	9343	10017
	(1)	W	L	1820	2366	4397	4518	5350	5800	7813	8312
Water flow rate	(1)	l/h	H	323	343	551	576	616	684	921	960
	(1)	l/h	M	296	313	511	534	559	616	819	878
	(1)	l/h	L	160	207	385	396	460	499	685	72
Pressure drop	(1)	kPa	H	9	12	26	18	37	3	16	32
	(1)	kPa	M	7	10	22	16	30	26	13	28
	(1)	kPa	L	3	4	13	9	27	18	9	22
Heating capacity (50°C)	(2)	W	H	2180	2340	3750	3940	4320	4750	6270	6550
	(2)	W	M	1990	2130	3480	3650	3920	4290	5580	5980
	(2)	W	L	1100	1410	2620	2710	3230	3450	4670	4970
Water flow rate	(2)	l/h	H	279	327	516	566	588	691	860	922
	(2)	l/h	M	250	296	480	525	538	624	760	824
	(2)	l/h	L	170	193	358	390	445	499	633	685
Pressure drop	(2)	kPa	H	8	12	27	19	35	31	16	21
	(2)	kPa	M	7	10	23	16	29	26	13	17
	(2)	kPa	L	3	5	13	9	20	13	9	13
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)											
Heating capacity (70°C)	(3)	W	H	2220	-	3780	-	4493	-	5888	-
	(3)	W	M	2080	-	3596	-	4171	-	5499	-
	(3)	W	L	1590	-	2946	-	3675	-	4896	-
Water flow rate	(3)	l/h	H	196	-	331	-	394	-	515	-
	(3)	l/h	M	183	-	315	-	366	-	482	-
	(3)	l/h	L	140	-	258	-	322	-	429	-
Pressure drop	(3)	kPa	H	8	-	28	-	16	-	26	-
	(3)	kPa	M	7	-	25	-	14	-	23	-
	(3)	kPa	L	5	-	17	-	11	-	19	-
COOLING MODE for all configuration											
Total cooling capacity	(4)	W	H	1624	1900	2997	3290	3420	4020	5000	5360
	(4)	W	M	1454	1720	2790	3050	3130	3630	4420	4790
	(4)	W	L	990	1120	2080	2270	2590	2900	3680	3980
Sensible cooling capacity	(4)	W	H	1242	1350	2090	2370	2700	3015	3738	3990
	(4)	W	M	1116	1230	1940	2190	2440	2718	3337,5	3570
	(4)	W	L	750	810	1440	1610	2000	2200	2800	2950
Water flow rate	(4)	l/h	H	279	327	515	566	588	691	860	922
	(4)	l/h	M	250	296	480	525	538	624	760	824
	(4)	l/h	L	170	193	358	390	445	499	633	685
Pressure drop	(4)	kPa	H	9	14	31	23	44	37	18	26
	(4)	kPa	M	7	12	27	20	36	31	14	21
	(4)	kPa	L	3	5	15	11	25	16	10	16
Air flow rate		m³/h	H	285	277	433	420	590	570	805	775
		m³/h	M	256	249	397	386	524	509	704	685
		m³/h	L	161	160	287	280	417	406	572	563
Fans		type					centrifugal				
		n°		1	1	2	2	2	2	3	3
High static pressure		Pa	H	61	61	60	60	64	63	66	64
		Pa	M	50	50	50	50	50	50	50	50
		Pa	L	21	21	26	26	32	32	33	34
Absorbed power		W	H	36	36	45	45	53	53	86	86
		W	M	29	29	33	33	40	40	60	60
		W	L	12	12	17	17	24	24	35	35
Max. input current		(A)	0,33	0,33	0,41	0,41	0,5	0,5	0,5	0,5	0,5
Sound power level (inle+adiator)	(5)	dB(A)	H	54	54	55	55	57	57	58	58
	(5)	dB(A)	M	52	52	53	53	54	54	55	55
	(5)	dB(A)	L	39	39	45	45	44	44	38	38
Sound power level (outlet)	(5)	dB(A)	H	50	50	50	50	52	52	54	54
	(5)	dB(A)	M	48	48	48	48	49	49	51	51
	(5)	dB(A)	L	34	34	39	39	39	39	34	34
Water content		l	1,11	1,48	1,5	1,48	1,48	1,48	2,52	3,4	3,4
Coil connections		ø Gas (F)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Coil connections (additiona heat exchanger)		ø Gas (F)	1/2"	-	1/2"	-	1/2"	-	1/2"	-	-
Signal 0-10V		H	9V	9V	9V	9V	9V	9V	9V	9V	9V
		M	8,2V	8,2V	8,2V	8,2V	8,2V	7,8V	7,8V	7,8V	7,8V
		L	5,4V	5,4V	5,8V	5,8V	6,6V	6,2V	6,2V	6,6V	6,6V
Power supply							230V/1/50Hz				

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperare 70°C; ΔT water 10°C

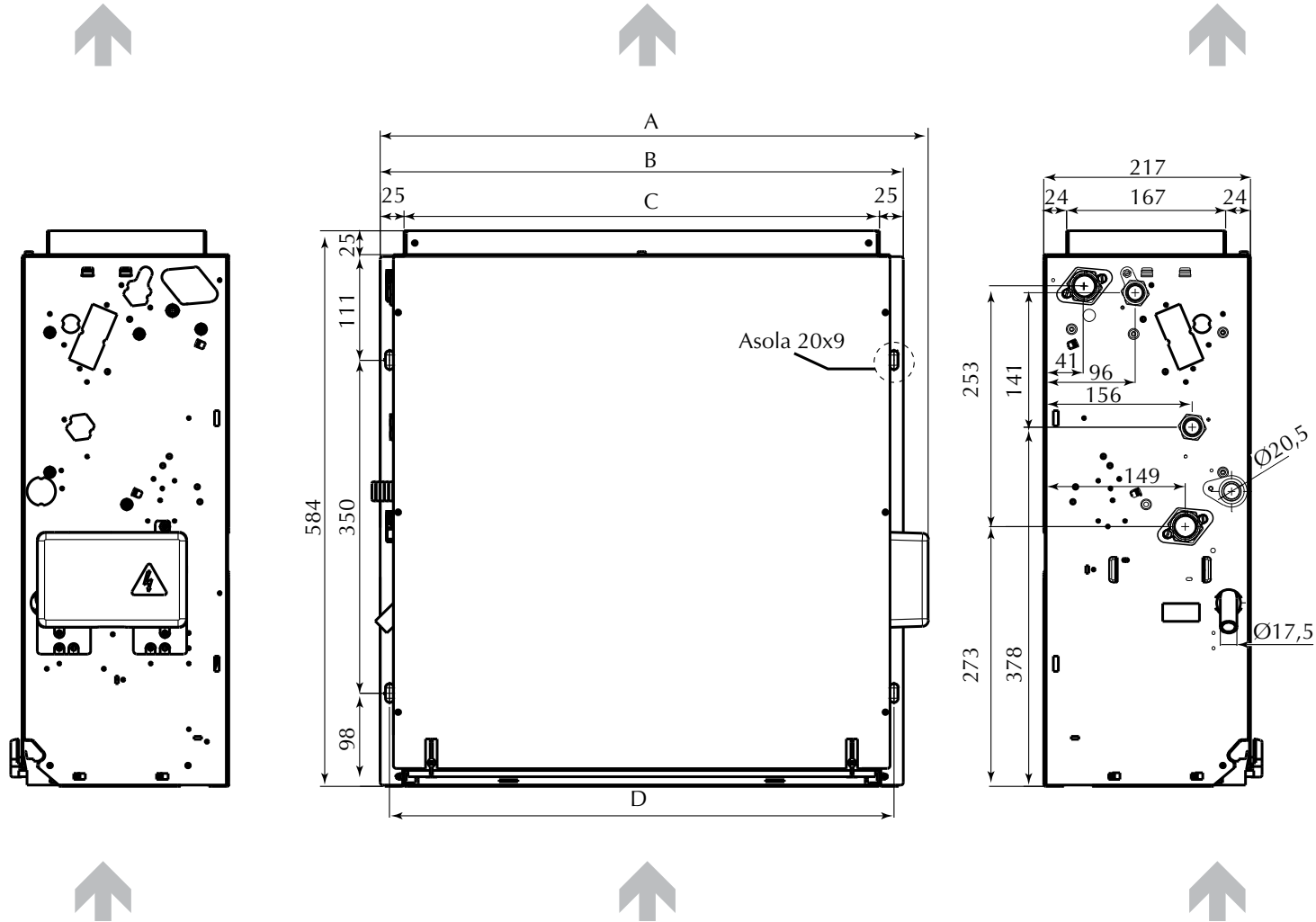
Cooling mode (EUROVENT)

(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperare 7°C; ΔT water 5°C

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

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

VED: 030I - 040I - 130I - 140I - 230I - 240I - 330I - 340I



VED		030I	040I	130I	140I	230I	240I	330I	340I
A	mm	576	576	807	807	1027	1027	1148	1148
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	500	500	731	731	951	951	1072	1072
D	mm	530	530	761	761	981	981	1102	1102
Net weight	Kg	20	21	23	24	29,5	32	32,5	34

VED I Fan coil unit with Inverter brushless motor for ducted systems Cooling capacities 8÷10kW



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Variable Multi Flow
VMF



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

Unit selection

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

Configuration fields:

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

Characteristics

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

Accessories

- **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	530	532	540	541	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 (1)	•	•	•	•	•	•	•	•
SIT 5 (2)	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•
WMT05	•	•	•	•	•	•	•	•
WMT06	•	•	•	•	•	•	•	•
WMT10	•	•	•	•	•	•	•	•
VCF45C	•	•	•	•				
VCF45H		•		•				
VCF47C					•	•	•	•
VCF47H						•		•
VCF25C	•	•	•	•	•	•	•	•
VCF25H		•		•		•		•
VMF-SIT3 (3)	•	•	•	•	•	•	•	•
VMF-E0	•	•	•	•	•	•	•	•
VMF-E1	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5B	•	•	•	•	•	•	•	•
VMF-E5N	•	•	•	•	•	•	•	•

(1)SIT3 Mandatory accessory on the VED units coupled to thermostats different to the VMF System

(2)SIT5 Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel

(3)Mandatory accessory for coupling with VMF-E0 or VMF-E1

Technical data

Mod.	VED	Vel.	530I	532I	540I	541I	730I	732I	740I	741I
2 PIPE SYSTEM CONFIGURATION										
Heating capacity (70°C)	(1)	W	H	17572	-	19908	-	28999	-	31706
	(1)	W	M	16467	-	18586	-	25364	-	27650
	(1)	W	L	13802	-	15377	-	21178	-	22883
Water flow rate	(1)	l/h	H	1541	-	1746	-	2544	-	2781
	(1)	l/h	M	1444	-	1630	-	2225	-	2425
	(1)	l/h	L	1211	-	1349	-	1858	-	2007
Pressure drop	(1)	kPa	H	21	-	29	-	67	-	46
	(1)	kPa	M	18	-	25	-	55	-	36
	(1)	kPa	L	13	-	18	-	38	-	26
Heating capacity (50°C)	(2)	W	H	10420	-	11820	-	17280	-	19150
	(2)	W	M	9780	-	11050	-	15120	-	16680
	(2)	W	L	8190	-	9170	-	12640	-	13840
Water flow rate	(2)	l/h	H	1335	-	1543	-	2382	-	2766
	(2)	l/h	M	1271	-	1469	-	2098	-	2448
	(2)	l/h	L	1060	-	1278	-	1789	-	2057
Pressure drop	(2)	kPa	H	16	-	23	-	57	-	35
	(2)	kPa	M	15	-	21	-	44	-	28
	(2)	kPa	L	11	-	16	-	33	-	21
4 PIPE SYSTEM CONFIGURATION (with additional heat exchanger)										
Heating capacity (70°C)	(3)	W	H	-	13540	-	8850	-	22174	-
	(3)	W	M	-	12850	-	8520	-	19726	-
	(3)	W	L	-	10720	-	7475	-	16728	-
Water flow rate	(3)	l/h	H	-	1188	-	776	-	1945	-
	(3)	l/h	M	-	1127	-	747	-	1730	-
	(3)	l/h	L	-	940	-	656	-	1467	-
Pressure drop	(3)	kPa	H	-	22	-	32	-	33	-
	(3)	kPa	M	-	20	-	30	-	26	-
	(3)	kPa	L	-	14	-	24	-	20	-
COOLING MODE for all configuration										
Total cooling capacity	(4)	W	H	7760	7760	8970	8970	13850	13850	16080
	(4)	W	M	7390	7390	8540	8540	12200	12200	14230
	(4)	W	L	6160	6160	7430	7430	10400	10400	11960
Sensible cooling capacity	(4)	W	H	6020	6020	6450	6450	11440	11440	11320
	(4)	W	M	5710	5710	6130	6130	9990	9990	9970
	(4)	W	L	4720	4720	5040	5040	8480	8480	8340
Water flow rate	(4)	l/h	H	1335	1335	1543	1543	2382	2382	2766
	(4)	l/h	M	1271	1271	1469	1469	2098	2098	2448
	(4)	l/h	L	1060	1060	1278	1278	1789	1789	2057
Pressure drop	(4)	kPa	H	21	21	28	28	58	58	45
	(4)	kPa	M	19	19	25	25	46	46	37
	(4)	kPa	L	12	12	19	19	35	35	27
Air flow rate		m ³ /h	H	1520	1460	1500	1460	2410	2350	2350
		m ³ /h	M	1400	1360	1380	1360	2040	2000	2000
		m ³ /h	L	1120	1060	1100	1060	1640	1600	1600
Fans		type					centrifugal			
		n°		2	2	2	2	3	3	3
High static pressure		Pa	H	58	56	56	56	69	69	69
		Pa	M	50	50	50	50	50	50	50
		Pa	L	32	32	32	32	32	32	32
Absorbed power		W	H	205	185	205	185	370	363	370
		W	M	170	163	170	163	245	240	245
		W	L	115	106	115	106	140	138	140
Sound power level (inle+ radiator)	(5)	dB(A)	H	62		62		64		68
	(5)	dB(A)	M	59		59		66		66
	(5)	dB(A)	L	53		53		62		62
Sound power level (outlet)	(5)	dB(A)	H	58		58		64		64
	(5)	dB(A)	M	55		55		62		62
	(5)	dB(A)	L	49		49		58		58
Coil connections		ø Gas (F)		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Coil connections (additional heat exchanger)		ø Gas (F)		-	1/2"	-	1/2"	-	1/2"	-
Signal 0-10V		H	9V	9V	9V	9V	9V	9V	9V	9V
		M	8,4V	8,4V	8,4V	8,4V	7,6V	7,6V	7,6V	7,6V
		L	6,6V	6,6V	6,6V	6,6V	6,2V	6,2V	6,2V	6,2V
Power supply							230V/1/50Hz			

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

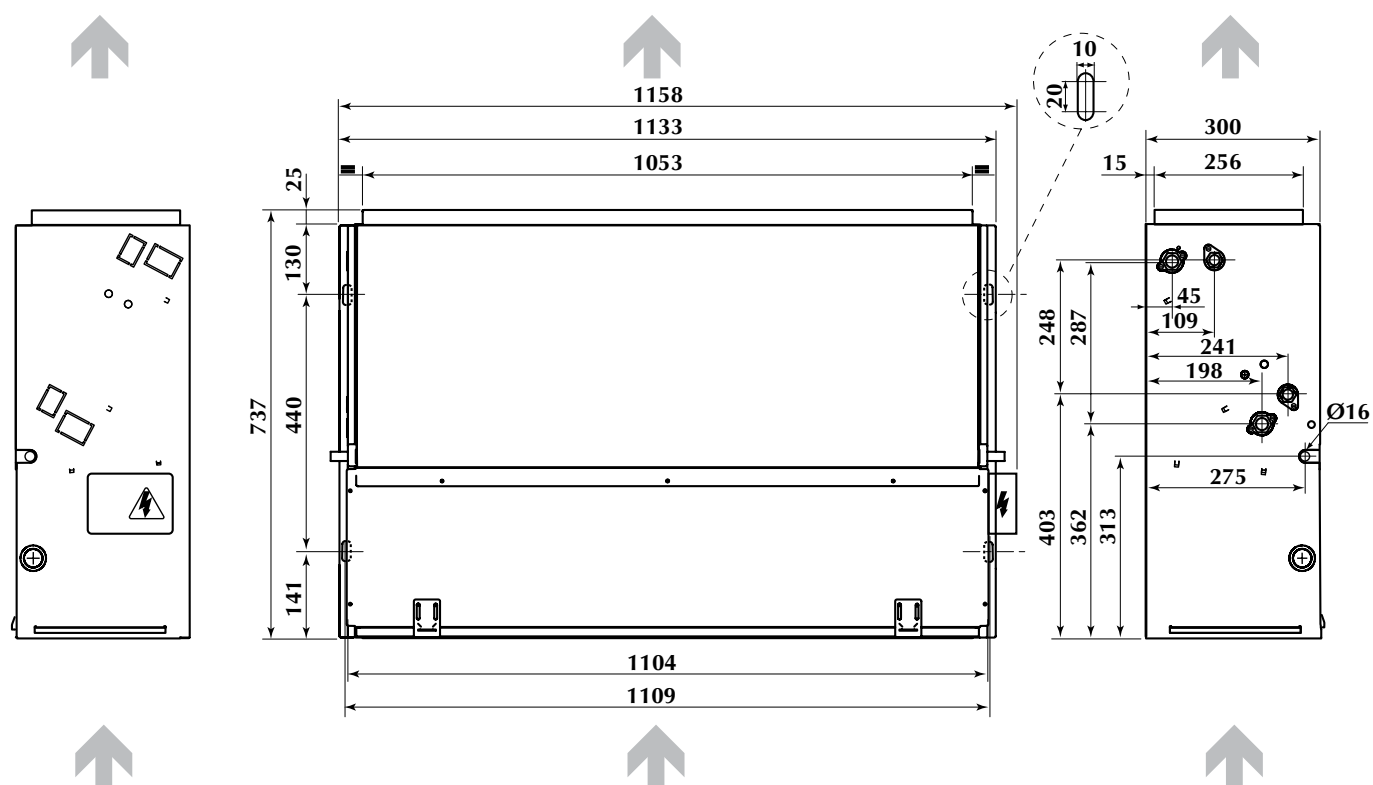
(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

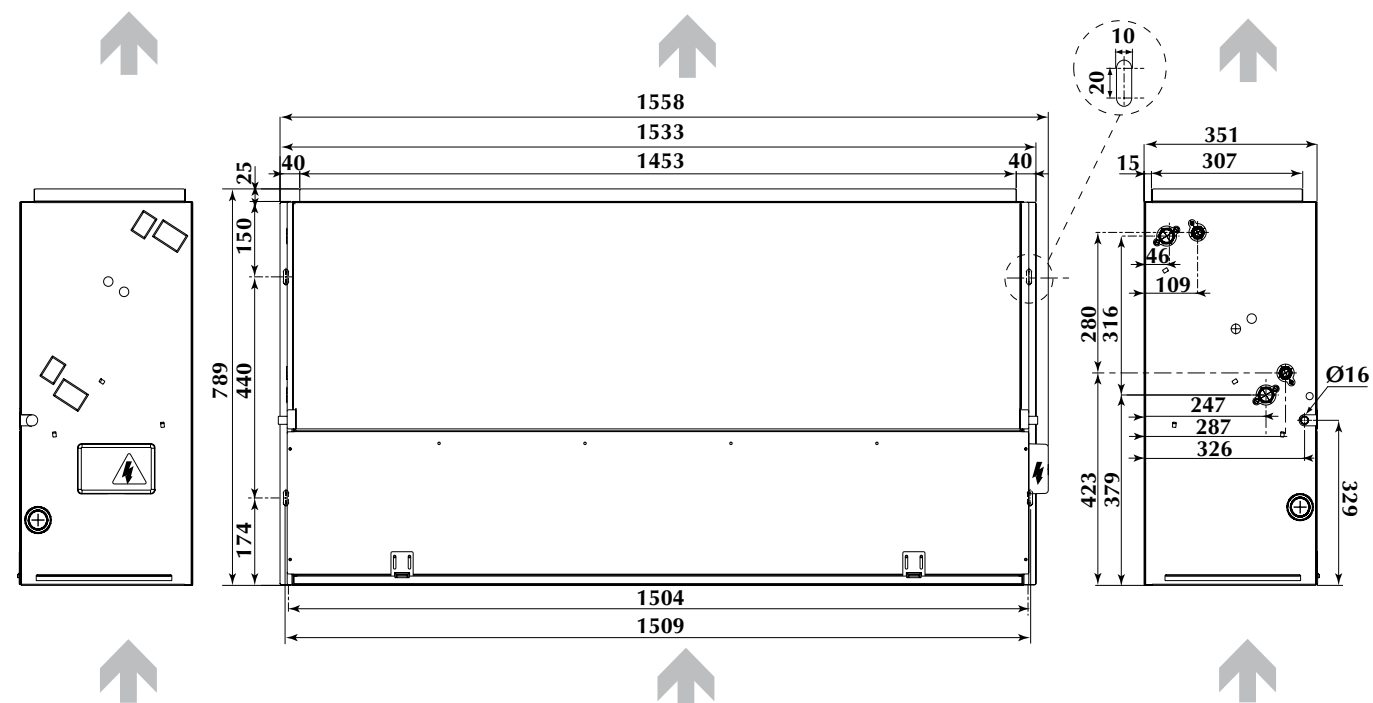
Note: For more information refer to the program selection and the technical documentation available on the website www.aermec.com

Dimensional data (mm)

VED: 530I - 532I - 540I - 541I



VED: 730I - 732I - 740I - 741I



Control panels

Control panels
for fan coils



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.
- **FMT21:** 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.
- **TPF:** Electronic thermostat with LCD display, for 2 and 4 tube fan coil units, with the possibility of connecting two valves of On-Off type for isolating the water supply to the coils. Air temperature sensor internal to the panel. It is possible to connect a system water temperature sensor (water sensor supplied loose). Recess mounted.

Features	PXAE	PXAI	PXAR	PXBI	PTI	FMT10	FMT21	TPF	WMT05	WMT06	WMT10	KTLM	KTLP	TFI	PX	PX2	PX2C6	PCT2
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			✓6m										
Installation																		
Wall installation	✓		✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
On board installation		✓	✓	✓														
Recessed installation (503)						✓	✓	✓				✓	✓					
IR remote control																		
Configurations 2-pipe system																		
2-pipe system Without valve																		
VCF	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW**	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓					
SA***	✓					✓6m	✓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	✓																	
SIT3	✓																	
SIT5	✓																	

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

Symbols
 * = Air temperature sensor selected by remote control
 ** = Water temperature sensor
 *** = Air temperature sensor
 VC = Hot water valve
 VF = Cold water valve
 VCF = Hot and cold water valve
 RX = Electric heater
 (503) = Recessed 503 module

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



*As awarded 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 hydronic 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 the VMF-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.

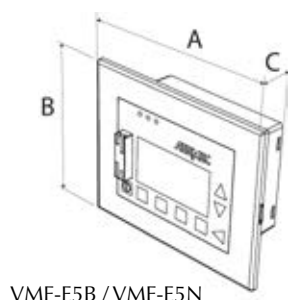
System components

- **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-E2D:** is the user interface (as above) on the machine, to combine with accessories VMF and VMF-E0-E1, dedicated to the series DUALJET.
- **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-SIT3:** Interface cards that allow you to connect the thermostats VMF and VMF-E0-E1 to a fan motor with high power (for selection see all the documentation of the thermostat and the fan coil).
- **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

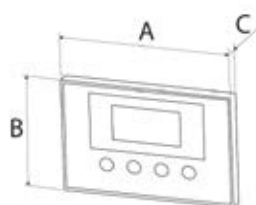
thermostats for the maximum control in the cold range.

- **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);

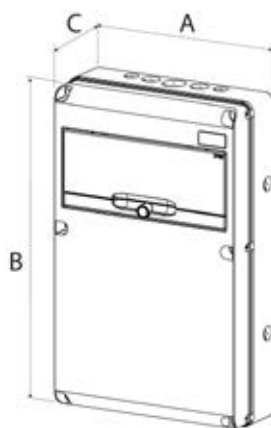
Dimensions (mm)



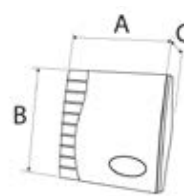
VMF-E5B / VMF-E5N



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-E2D	VMF-E2H	VMF-E4 / VMF-E4D	GLL N	GLLI N
FCX	AS - UA - B		✓	✓	-	✓	-	-	✓	-	-
	U	(7)	✓	✓	-	✓	-	-	✓	-	-
	P - PPC - PO - PV		✓	✓	-	-	-	-	✓	-	-
FCXI	AS		-	-	✓	✓	-	-	✓	-	-
	U	(7)	-	-	✓	✓	-	-	✓	-	-
	P		-	-	✓	-	-	-	✓	-	-
HL	S - SM		✓	✓	-	-	-	✓	✓	-	-
	N	(1)	-	-	-	-	-	-	-	-	-
UL	S		✓	✓	-	-	-	-	✓	-	-
	P		✓	✓	-	-	-	-	✓	-	-
FHX	UV	(7)	✓	✓	-	✓	-	-	✓	-	-
	UVP - UVPO		✓	✓	-	-	-	-	✓	-	-
VEC			✓	✓	-	-	-	-	✓	-	-
FCL		(8)	-	-	-	-	-	-	✓	✓	-
FCLI		(8)	-	-	-	-	-	-	✓	-	✓
VED			✓	✓	-	-	-	-	✓	-	-
FCW	N		✓	✓	-	-	-	-	✓	-	-
DUALJET			✓	✓	-	-	✓	-	✓	-	-

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)	✓
FCW	N	(2)	✓
DUALJET		(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	Tutte	(5) (6)	✓	✓ (6)	
VED	Tutte	(9)			✓
RePuro		(5) (6)	✓	✓ (6)	

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 control 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;

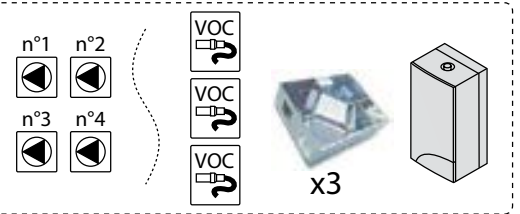
(9) Accessory units required for the combination of VED with thermostats or VMF VMF-E0-E1. Using a VMF-SIT3 for each unit;

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

VMF-CRP

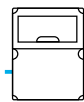


Selection 3:

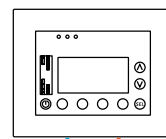
- The VMF-ACS accessory allows to control the different components needed to produce domestic hot water; for detailed information on the types of systems manageable by VMF-ACS, refer to technical documentation of the accessory

WARNING: in the case where the plant is provided with accessory Multicontrol it will not be possible to use the accessory VMF-ACS, since the production of domestic hot water will be controlled only through the accessory Multicontrol.

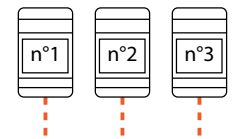
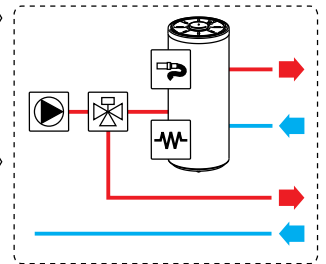
VMF-ACS



Multicontrol



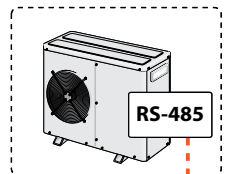
VMF-CRP (Multicontrol)



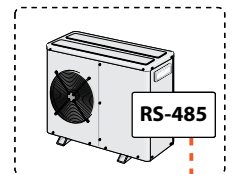
Selection 2:

WARNING:: Each chiller must be provided with the appropriate communications accessory Modu-485A

Chiller 1 (Multicontrol)

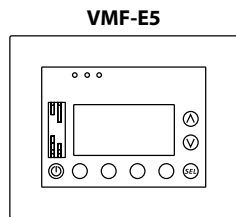


Chiller 4 (Multicontrol)



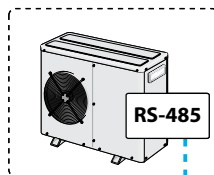
MODbus RS485 Multicontrol

Selection 1:



MODbus RS485
(MAX 1000m)

Chiller



MAX 30m (ModBus TTL)

ModBus TTL

A

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

B

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

Climafon

Thermoconvectors
Vertical installation residential use



Flat grid, fixed
with aluminum fins



Aermec presenta il sistema di riscaldamento a convezione naturale della serie **CLIMAFON**.

CLIMAFON nasce dalla lunga esperienza in materia di scambio termico maturata all'interno del Giordano Riello International Group, gruppo di cui Aermec è l'azienda principale.

CLIMAFON è un terminale d'impianto che funziona in base al principio della convezione naturale: l'aria viene riscaldata attraverso un esclusivo scambiatore alettato e viene immessa in ambiente per effetto camino.

Features

- **Maggiore Comfort:** CLIMAFON riscalda gli ambienti in modo rapido e naturale in quanto basa il suo funzionamento sul movimento dell'aria innescato dalla semplice convezione. L'utilizzo di CLIMAFON con sistemi di riscaldamento a bassa temperatura (pompa di calore, caldaia a condensazione, geotermico, solare...) fa sì che il riscaldamento degli ambienti avvenga senza seccare l'aria. Ne deriva una gradevole sensazione di benessere che aiuta a superare in totale relax anche gli inverni più lunghi e rigidi.
- **Migliore qualità dell'aria che respiriamo:** la temperatura dell'aria in uscita da CLIMAFON è tale da non consentire la "tostatura" della polvere presente nell'ambiente. Il risultato è aria sana e pulita. Oltre alla nostra salute ne guadagnerà anche l'aspetto delle pareti della nostra casa (con CLIMAFON è scongiurato il fenomeno dell'annerimento delle pareti tipico degli impianti a radiatori).
- **Risparmio energetico:** l'innovativo scambiatore alettato assicura elevata efficienza energetica grazie alla possibilità di efficace utilizzo con basse temperature dell'acqua calda di alimentazione.
- **Maggiore rapidità nella messa a regime:** CLIMAFON ha un ridottissimo contenuto d'acqua. Questo gli consente di essere velocissimo nei tempi di riscaldamento e di poter essere usato solo dove e quando serve. La rapidità di messa a regime di CLIMAFON è stata verificata dal TÜV (leader mondiale in campo di valutazione e verifica dei prodotti).
- **Maggiore sicurezza:** la superficie esterna di CLIMAFON raggiunge al massimo una temperatura di 43°C, valore assolutamente innocuo per il nostro corpo (è nullo il rischio di scottature). La sua forma arrotondata e senza spigoli rende gli ambienti più sicuri, soprattutto per i bambini.
- **Maggiore cura nell'estetica:** le linee arrotondate, moderne ed eleganti conferiscono a CLIMAFON una notevole gradevolezza estetica che ne permette l'integrazione in ogni tipo di arredamento, sia classico che contemporaneo.
- **Installazione più facile e più rapida:** CLIMAFON è molto più leggero rispetto ad un radiatore di pari potenza; basta una persona per trasportarlo ed installarlo con facilità e rapidità su ogni tipo di parete. CLIMAFON è corredato di una dima di installazione che permette di completare il montaggio dell'unità in una fase successiva ai lavori di cantiere. Si evitano le onerose opere murarie tipiche dell'installazione dei radiatori: bastano quattro tasselli per fissare rapidamente CLIMAFON alla parete.

Versions

- Available in four sizes Flat grid, fixed with aluminum fins.
- The versions available are double (4 rows of pipes) or treble (6 rows of pipes). Water connections can be reversed during installation phase

Selection

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

Code:

CLIMAFON

Size :

1, 2, 3, 4

Coil :

- 2 - Double
- 3 - Treble

Grille:

P - Flat grid, fixed with aluminum fins

Commercial code example: **CLIMAFON 23P**

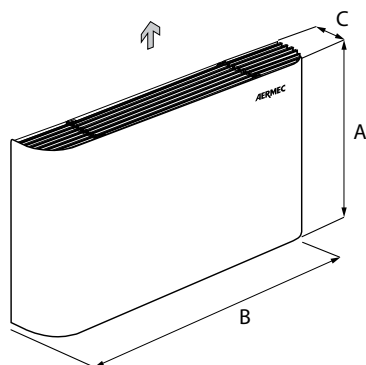
Technical data

Mod. CLIMAFON		12P	13P	22P	23P	32P	33P	42P	43P
Heating capacity	W	910	1005	1350	1540	1750	2001	2205	2515
Water flow rate	l/h	78	87	116	135	150	176	190	221
Water pressure drop	kPa	0,22	0,26	0,50	0,72	0,95	1,36	1,31	1,91
Water contents	l	0,5	0,6	0,8	1,1	1,0	1,4	1,1	1,6
Coil connections	ø	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Rows of pipes	ø	2	3	2	3	2	3	2	3

Heating (in accordance with UNI EN 442):

- room air temperature 20 °C; hot water temperature (in/out) 75/65°C; Δt water 50 °C

Dimensions (mm)



Mod. CLIMAFON		12P	13P	22P	23P	32P	33P	42P	43P
Height	A	630	630	630	630	630	630	630	630
Width	B	600	600	800	800	1000	1000	1200	1200
Depth	C	140	140	140	140	140	140	140	140
Weight	[kg]	12	13	15	16	18	19	21	22

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

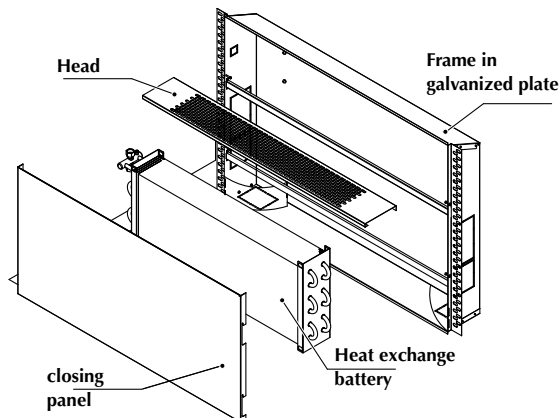
- Available in 3 sizes with double or triple battery.
- **Climabox** consists of several parts to be assembled:

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 reversible 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:

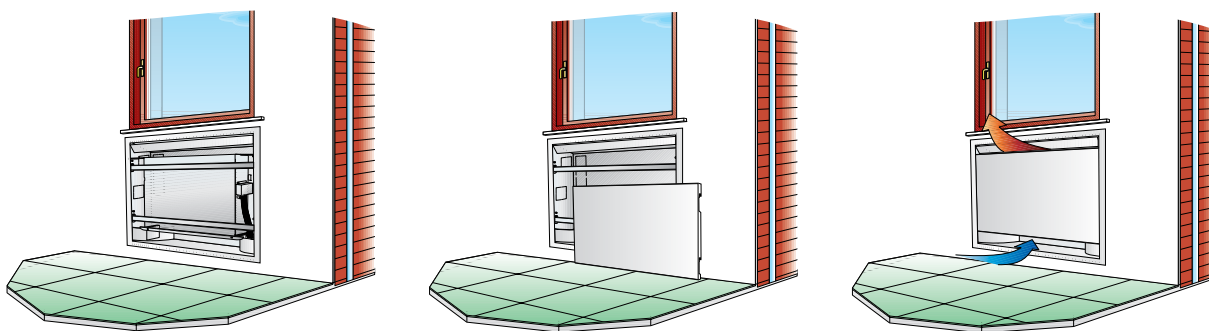
2, 3, 4

Battery:

- 2 - Double
- 3 - Triple

Grille:

Fixed grille



Technical data

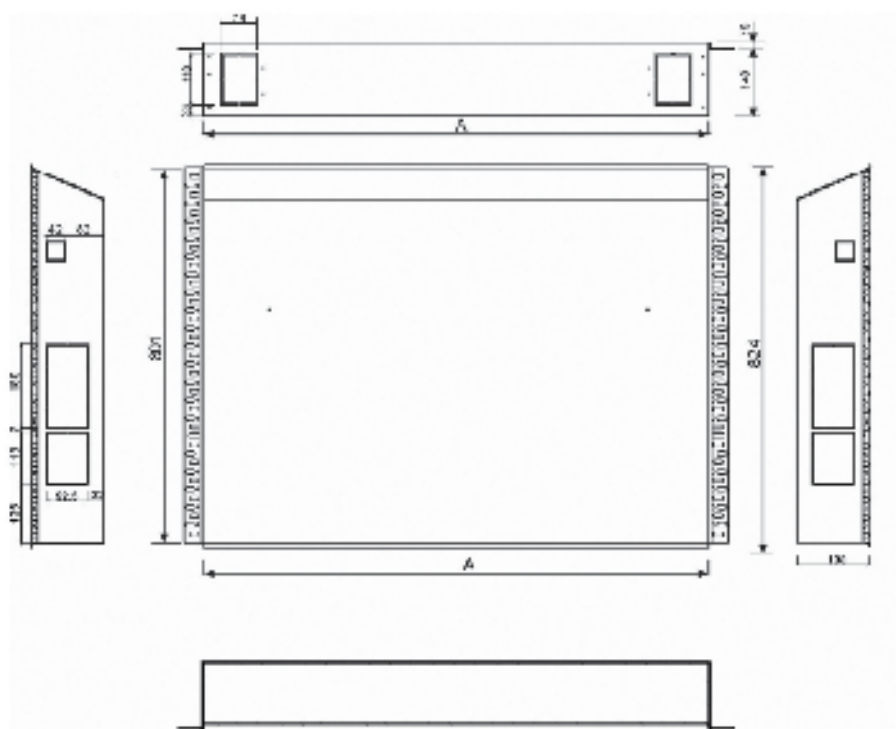
Mod.		CBX 22	CBX 23	CBX 32	CBX 33	CBX 42	CBX 43
Thermal power	W	1220	1330	1610	1755	2005	2180
Water flow rate	l/h	105	114	138	151	172	187
Water pressure drop	kPa	0,5	0,72	0,95	1,36	1,31	1,91
Water content	l	0,8	1,1	1	1,4	1,1	1,6
Battery connectors	ø gas	1/2" Female					

Data in compliance with standard UNI EN 442

HEATING

Water input temperature	75 °C
Water output temperature	65 °C
room temperature	20 °C ($\Delta T_0=50$ °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

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		Version	
	Size		Configuration

Identification:

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.

• 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.

• TPMC Plenum of delivery

Plenum to be used for the connection with circular canals. Made of galvanised steel with insulating mat with circular nozzles. Three sections closed. It can be used as a plenum, both as a plenum aspiration with circular channels.

• PMC Closed flow plenum

1.5 mm Plenum made of hot galvanised sheet metal. The plenum allows the flow to turn 90°. The installer must make the flow aperture.

• SAS Intake damper

Air calibration damper with louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

• GMD Flow grid with adjustable louvers

Grid with double row adjustable louvers for air to be introduced in the relative room. It can be installed directly on to the appliance by removing the flanges or on to the wall.

• GAP Intake grid

With louvers tilted at 45°; it can be installed directly on to the appliance by removing the flanges or on to the wall.

• FPI G4 filters for lower intake

• FPF G4 filters

• PX Control panel with only the switch-over

• WMT 05 Electro-mechanical thermostat

For fan coils installed in 2-pipe systems. The panel must be installed on the wall and protected electrically with an internal fuse. It has the following functions: on / off switch; cursor to select the heating / cooling modes (manual season change); cursor to select the fan speed (high, medium and low); temperature selector (+5°C to 30°C)

• WMT10 Control panel

For fan coils installed on the wall. Controls the fan coil operation according to the set mode. The panel must be wall mounted; it is to be used in 4-pipe and 2-pipe systems and systems with 2-pipes with resistance, with the possibility of connecting two ON - OFF type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse. The control has the following functions:

- 1) cursor to select the cooling or heating mode;
- 2) manual season change;
- 3) manual selection of the fan speed;
- 4) selection of the desired room temperature (+10°C to 30°C);
- 5) 2-pipe system management;
- 6) 4-pipe system management;
- 7) 2-pipe system management (cooling) + electrical resistance (heating);
- 8) thermostatic ventilation;
- 9) continuous ventilation;
- 10) continuous ventilation in cooling mode and thermostatic in heating mode.

Accessories compatibility

	TUN 10	TUN 15	TUN 20	TUN 25	TUN 40	TUN 40P
M2S	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5
M3S	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5
FTF	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5
B2R	B2R11	B2R21	B2R31	B2R41	B2R41	B2R51
PBE	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7
SSL	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5
S2Z	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5
VRF	VRF1	VRF3	VRF4	VRF5	VRF6	VRF7
PMM	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5
TPMC	TMPC1	TMPC2	TMPC3	TMPC4	TMPC4	TMPC5
PMC	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5
SAS	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5
GMD	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5
GAP	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5
FPI	FPI1	FPI2	FPI3	FPI4	FPI4	FPI5
FPF	FPF1	FPF2	FPF3	FPF4	FPF4	FPF5
PX	•	•	•	•	•(2)	•(2)
WMT 05	•	•(1)	•(1)	•(1)	•(2)	•(2)
WMT 10	•	•(1)	•(1)	•(1)	•(2)	•(2)
SIT3	•	•	•	•	•	•

(1) SIT3 is to be used and the 2A fuse is to be replaced with a 4A fuse

(2) Install a relay, one per speed

Technical data

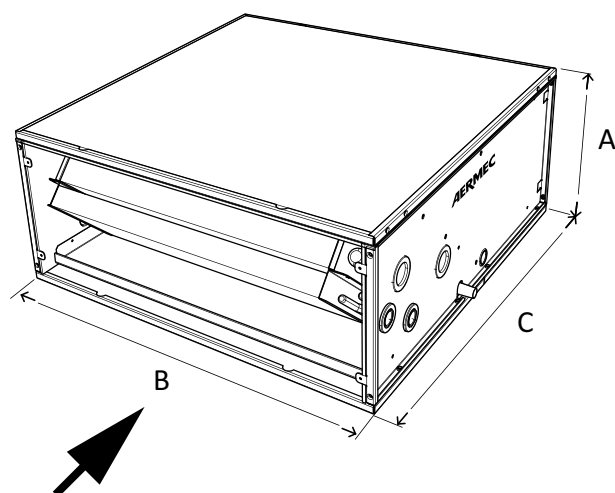
			10	15	20	25	40	10P	40P
Cooling capacity with:									
4-row coil ⁽¹⁾	total	kW	4,7	9,3	12,5	16,5	23,3	4,7	26,4
	sensible	kW	3,6	6,6	8,7	11,4	16,3	3,6	18,2
6-row coil ⁽¹⁾	total	kW	6,2	11,1	14,1	18,5	26,6	6,2	29,4
	sensible	kW	4,4	7,6	9,8	12,7	18,5	4,4	20,1
Water flow rate									
4-row coil		l/h	804	1599	2141	2832	4002	804	4536
6-row coil		l/h	1072	1910	2420	3184	4572	1072	5051
Pressure drop									
4-row coil ⁽²⁾		kPa	3	16	33	33	60	3	56
6-row coil ⁽²⁾		kPa	9	34	20	20	37	9	28
Heating capacity with		kW							
4-row coil ⁽²⁾	total	kW	11,2	19	24,9	32,3	46,7	16,6	51,1
	total	kW	12,5	21,1	27,5	35,4	52,2	18,5	56,1
4-row coil	total	kW	5,5	9,3	12,1	16	25,9	6,4	30,8
	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
Electrical coil:									
Electric coil capacity		kW	4	8	10	12	20	6	20
No. of stages of the electric coil		n°	2	2	2	2	2	2	2
Power supply		400V/3/50Hz							
fan:									
Air flow rate ⁽³⁾		m3/h	900	1500	2000	2500	4000	900	4000
Static pressure		Pa	110	150	170	150	120	330	220
Fan power supply		W	357	713	886	874	1771	713	1771
Fan input current		A	1,6	3,1	3,9	3,8	7,7	3,1	7,7
Poles		n°	2	2	4	4	4	2	4
Power supply		230V/1/50Hz							
Filters:									
Efficiency of flat filters ⁽⁴⁾ std/opt		STD/OPT	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4
Efficiency of bag filters			F6	F6	F6	F6	F6	F6	F6
Sound data:									
Sound power		dB(A)	68	72	77	78	79	71	80
Hydraulic connections:									
Main coil collectors		Ø	1"	1"	1"	1"	1"	1"	1"
Additional coil		Ø	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"

(1) Temperature of incoming air 27°C b.s./19°C b.u.
 Water temperature inlet 7°C
 Water temperature outlet 12°C

(2) Temperature of incoming air 20°C
 Water temperature inlet 70°C
 Water temperature outlet 60°C

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

(4) In compliance with EN 779



TUN HORIZONTAL INSTALLATION WITH EXTRACTOR
FRONT VIEW

Mod. TUN		10	10P	15	20	25	40	40P
DIMENSIONS OF A HORIZONTAL INSTALLATION AND "EXTRACTOR" CONFIGURATION								
Height (A)	mm	300	300	300	390	390	390	390
Width (B)	mm	700	700	1050	1050	1475	1475	2100
Length (C)	mm	700	700	700	850	850	850	1000
Connection projection	mm	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2
UNIT NET WEIGHTS		10	10P	15	20	25	40	40P
4-row coil	kg	33	37	47	59	88	88	108
6-row coil	kg	35	38	49	61	92	92	108

TS

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



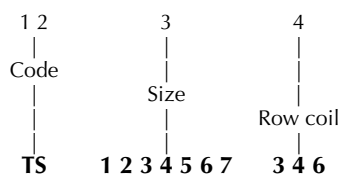
Characteristics

- 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
- **NOTE: Possibility to also have the engine with five speed.**
- Transmission system relay card for each speed (excluding the models TS13 and TS16)
- Useful static pressure available for any canalisation
- Large choice of distance commands
- Wide range of accessories to meet varying needs (class G3 air filter, post-heating coils, plenum suction assembly, mixer section, suction grille, delivery flanges with circular outlets or rectangular outlet)

Choice of Unit

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

Field configurator:



Code:

TS

Size:

1, 2, 3, 4, 5, 6, 7

Coil:

3 - 3-row coil

4 - 4-row coil

6 - 6-row coil

Models available:

Standard with 3 speed electrical motor

TS 13 - 16 - 23 - 34 - 36 - 43 - 46 - 53 - 56 - 63 - 74 - 76

with 5 speed electrical motor

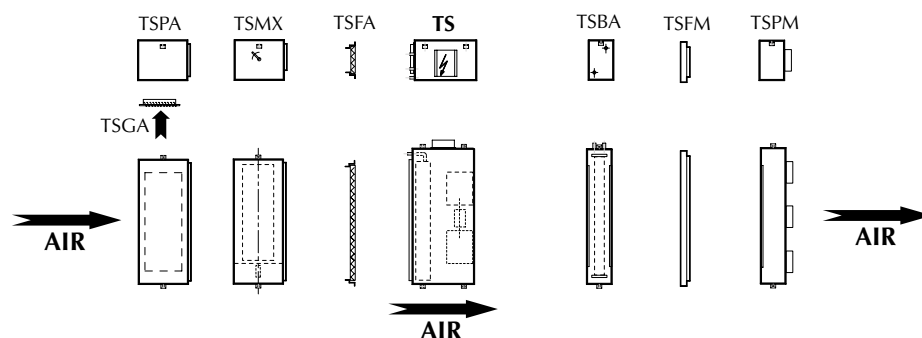
TS 135V - 165V - 235V - 345V - 365V - 435V - 465V - 535V - 565V - 635V - 745V - 765V

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 FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to

the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.

- **Control panels:** the characteristics of the control panels are described on the appropriate card.



Technical data

Model	U.M.	TS 13	TS 16	TS 23	TS 34	TS 36	TS 43	TS 46	TS 53	TS 56	TS 63	TS 74	TS 76
		TS135V	TS165V	TS235V	TS345V	TS365V	TS435V	TS465V	TS535V	TS565V	TS635V	TS745V	TS765V
Cooling capacity	kW	4.85	5.80	7.9	9.6	10.5	11.1	13.3	13.9	16.5	16.6	21.9	24.8
Sensible cooling capacity	kW	3.75	4.45	6.4	7.6	8.3	8.95	10.7	9.8	11.7	13.1	17.8	20.1
Water side pressure drop	kPa	21	9	24	24	16	23	17	32	27	26	28	26
Water flow rate	l/h	830	1000	1360	1650	1810	1910	2290	2390	2840	2860	3770	4270
Heating capacity (70°C)	kW	9.80	12.58	15.50	19.70	21.52	21.60	27.49	25.90	32.89	35.50	46.30	52.06
Water side pressure drop	kPa	12	8	17	20	13	17	13	21	21	20	23	21
Water flow rate	l/h	840	1080	1330	1690	1850	1860	2360	2230	2830	3050	3980	4480
Nominal air flow rate	m ³ /h	930	930	1500	1600	1600	2050	2050	2400	2400	3600	4200	4200
Useful static pressure (1)	Pa	90	55	100	85	45	115	75	105	70	120	115	75
TSFA filter pressure drop (2)	Pa	13	13	11	12	12	13	13	11	11	16	25	25
Coil rows	n°.	3	6	3	4	6	3	6	3	6	3	4	6
Coil water connections	Ø"	G 3/4"	G 1"	G 3/4"	G 3/4"	G 1"	G 3/4"	G 1"	G 3/4"	G 1"	G 1"	G 1"	G 1 1/4"
Maximum water temperature	°C	120	120	120	120	120	120	120	120	120	120	120	120
Ventilation speed number	bar	15	15	15	15	15	15	15	15	15	15	15	15
Motors	n°.	1	1	2	2	2	2	2	2	2	2	2	2
Fans	n°.	3	3	3	3	3	3	3	3	3	3	3	3
Ventilation speed number	n°.	1	1	1	1	1	1	1	1	1	1	1	1
Motor maximum power	W	225	225	345	345	345	550	550	550	550	600	830	830
Maximum input current	A	1	1	1,9	1,9	1,9	2,6	2,6	2,6	2,6	3,9	5,5	5,5
Sound pressure level	dB(A)	50	50	51	52	52	55	55	55	55	58	58	58
Power supply	V/ph/Hz	230V/1/50Hz											

Cooling

Room air temperature 27°C b.s./19°C b.u.; Water inlet temperature 7°C; ΔT water 5°C.

Heating (70°C)

Room air temperature 20°C b.s.; Water inlet temperature 70°C; ΔT water 10°C.

(1) Rated capacity (maximum speed) without air filter

(2) Air filter (TSFA accessory) at rated capacity

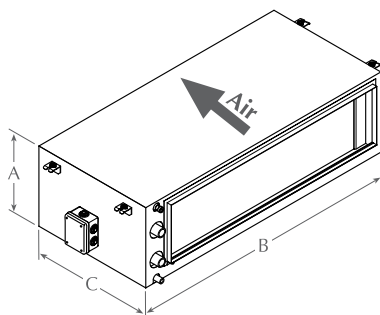
Compatibility of accessories

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	21		10	
	40	40	40		40	40	40			06	
	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 FMT21 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

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)

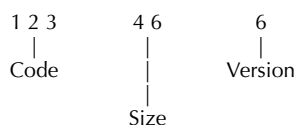
(1) Envision the use of SIT and the replacement of the AA fuse with one AA fuse

(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:



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
	sensible	kW	3,50	5,60	8,20	10,90
Cooling capacity with 4-row coil (2)	total	kW	6,10	9,70	13,10	18,40
	sensible	kW	4,30	6,90	9,40	12,50
Cooling capacity with R-407C coil (3)	totale	kW	5,10	7,50	10,70	14,10
	sensibile	kW	3,50	5,20	7,40	9,90
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

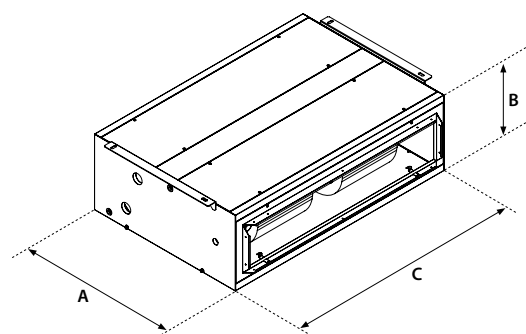
(4) Incoming air temperature 20°C; water temperature (In-Out) 70°C-60°C

(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
Length (A)	mm	630	670	670	790	790
Net weight *	kg	42	53,00	71,00	88,00	91,00

(*) with 4-row coil

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.

sleeves are supplied for the hydraulic attachments and the air vent valve.

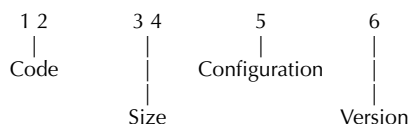
The possibility to rotate the coils on site is envisioned.

- 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:



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 fan 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°C÷30°C);

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

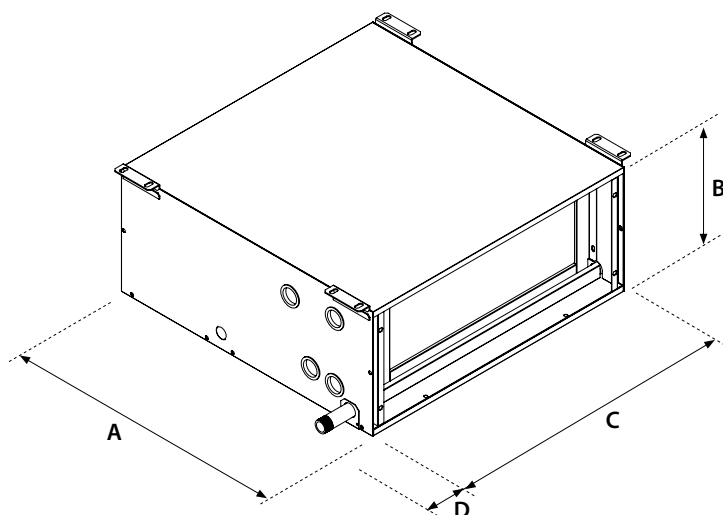
(2) Envisions return relay, one per speed

Technical data

Mod. TA		9	11	15	19	24	33	40	50
Nominal air flow rate	m ³ /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	31.8
	sensible	kW	3.5	4.2	6.2	8.3	11.2	14.3	21.3
Cooling capacity with 6 row coil (2)	total	kW	5.4	6.7	11.7	15.5	20.6	26.3	39.6
	sensible	kW	3.9	4.7	7.5	9.8	12.8	16.6	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	34.5
	sensible	kW	4.2	4.7	7.0	9.1	12.1	14.8	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 coils (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	22	22
	OUT	Ø mm.	22	22	22	22	22	28	28
Condensate Drain	Ø inc.	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4

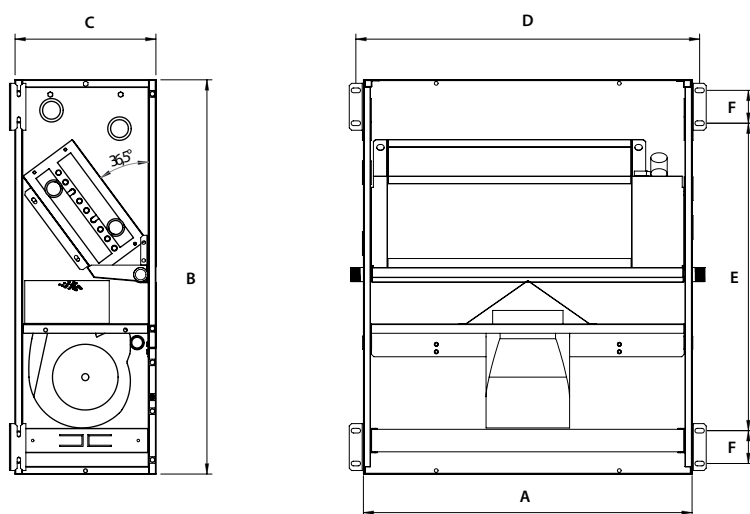
- (1) At nominal capacity with 4 row coil
(2) Entry air temperature 27°C d.b. 19°C w.b.; water temperature (Ent-Ex) 7°C - 12°C
(3) Entry air temperature 27°C d.b. 19°C w.b.; medium evap. temperature 2°C
(4) Entry air temperature 10°C; Water temperature (Ent-Ex) 70°C - 60°C
(5) Entry air temperature 20°C; 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
Length (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
Length (A)	mm	700	700	1050	1050	1475	1475	2099	2099
Fixing points (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								



The TN units are destined to commercial and industrial plants for medium size rooms.

The series consists of eight sizes with nominal air flow from 3000 m³/h to 23000 m³/h and allows the filtration, heating and / or cooling treatments.

The performances are ensured by high efficiency heat exchangers and high pressure fans coupled to the motor by variable pulley and belt.

The compactness, low noise level, and the wide range of accessories gives the TN series a huge versatility in order to adapt to customer requirements: in addition to the possibility of transforming the model from horizontal to vertical and the contrary too, it has been chosen to add a enhanced configuration to ensure a higher pressure of the fan.

Features

VERSIONS:

- 8 available sizes in vertical configuration with the possibility to **change them in horizontal version**.
- **Enhanced configuration** to ensure a higher pressure of the fan.

FRAME:

- The frame is made of aluminum profiles with sandwich panels made of galvanized steel inside and prepainted galvanized steel RAL 9002 outside with polyurethane insulation (density 40 kg / m³) and thickness of 25 mm. Both panels of the base unit and panels of the plenum are provided with pre-cuts which allow to make them compatible with the integration of accessories.
The fastening of the panels through profile block panel, ensures a perfect seal between panel and frame, and an extreme ease of assembly/ disassembly of the panels.
The 3 ways corner joint is made of nylon reinforced with glass fibers.
The condensate drain pan, in galvanized steel, is provided with threaded drain connection on both sides and it is suitable for both horizontal and vertical installation of the unit.

FANS:

- Fans are centrifugal type, double suction and forward blades with high performances.

MOTORS:

- The installed electrical motors are asynchronous three-phase, with closed frame and outside ventilation, comply with the regulations IEC, CEI, UNEL (protection class IP55), single speed (4 poles).

TRANSMISSIONS:

- Pulleys are with variable diameter to better set of the fan to the installation.
Belts can be SPA or SPB type.
They are supplied with conical clamping , "Taperlock" type and are statically and dynamically balanced.

WATER HEAT EXCHANGERS:

- The water heat exchangers are made of copper pipes and aluminum fins, blocked by mechanical expansion of the tubes; the main coil can be 4 or 6 rows (hot or cold) and 2, 3 or 4 rows the secondary one (only hot).
The filtration is carried out by 50 mm thick synthetic filters with G4 efficiency class (according to EN 779) placed on suction side.

FILTERS

These filters are easily removable to facilitate their maintenance and cleaning; they are placed on guides of the main coils section.

The removal of filters can be done pulling them sideways through the door on the panel, connections side.

With the accessory FTMxT, the filtration is made through compact filters with a F7 filtration degree.

Accessories

- **PLxT** supply and suction plenum: compatible with GAxT, GMxT and TPPLxT.
- **FT7MxT** compact filters F7 on fans supply: compatible with GMxT, SAxT and TPPxT.
- **B2RxT - B3RxT - B4RxT** batteria a acqua calda a 2 - 3 - 4 ranghi per impianti a 4 tubi.
- **SAxT** suction damper: to be installed on the base unit or on plenums.
- **GMxT** supply grille with adjustable fins: to be installed on the base unit or on plenums.
- **GAxT** suction grille with fixed fins, 45° bended: to be installed on the base unit or on plenums.
- **TPVSxT** protection roof for vertical installation with up supply: to be installed on the base unit.
- **TPVExT** protection roof for vertical installation: to be installed on PLxT, FT7MxT and vertical base unit with front supply.
- **TPLxT** protection roof for horizontal version with front supply: to be installed on the base unit.
- **TPPLxT** plenums protection roof for horizontal installation with front supply: to be installed on PLxT e FT7MxT from size 3 to 8.
- **TPFTLxT** bag filter protection roof for line installation with front supply.
- **P50MBT** corners support feets for horizontal and vertical versions.
- **P50ACT** side support feets for horizontal version.

	Montage	TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
GAxT	V - O	GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T
GMxT	V - O	GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T
SAxT	V - O	SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T
B2RxT	V - O	B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T
B3RxT	V - O	B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T
B4RxT	V - O	B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T
PLxT	V - O	PL1T	PL2T	PL3T	PL4T	PL5T	PL6T	PL7T	PL8T
FT7MxT	V - O	FT7M1T	FT7M2T	FT7M3T	FT7M4T	FT7M5T	FT7M6T	FT7M7T	FT7M8T
TPVSxT	V	TPVS1T	TPVS2T	TPVS3T	TPVS4T	TPVS5T	TPVS6T	TPVS7T	TPVS8T
TPVExT	V	TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T
TPLxT	O	TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T
TPPLxT	O	TPPL1T	TPPL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
TPFTLxT	O	TPFTL1T	TPFTL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
P50MBT	V - O	P50MBT							
P50ACT	O	P50ACT							

V - O = This accessory can be mounted both on the vertical version and horizontal version;
V = This accessory can be mounted only on the vertical version;
O = This accessory can be mounted only on the horizontal version;

Technical data

			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Max. airflow	1	m ³ /h	3000	4100	5650	7350	9300	11700	15500	20000
Max. airflow	2	m ³ /h	3500	4700	6400	8000	10000	13400	17800	20000
Max. airflow	3	m ³ /h	3500	4700	6400	8400	10900	13400	17800	23000
Fans available pressure										
Maximum fans	4	Base unit	Pa	215	235	236	226	156	193	131
	4	Enhanced unit	Pa	390	407	458	454	340	438	381
Cooling power with coils 4 rows	5	Total	kW	15,6	21,3	29,1	38,1	44,8	56,7	96,4
		Sensible	kW	10,7	14,7	20,1	26,2	33,3	41,7	70,9
Cooling power with coils 6 rows	5	Total	kW	20	27,4	37,7	49,2	58,3	74,5	127,8
		Sensible	kW	13,4	18,3	25,2	32,8	41,1	51,8	88,5
Cooling power with coils 4 rows	6	Total	kW	18,9	25,8	35,3	46,3	56,1	70,7	120,2
		Sensible	kW	12	16,4	22,4	29,3	37,5	46,9	79,8
Cooling power with coils 6 rows	6	Total	kW	23,9	32,9	45,3	59,2	71,6	90,6	155,1
		Sensible	kW	15	20,5	28,3	36,9	46,4	58,3	99,6
Heating power with coils 2 rows	7	kW	25,2	34	46,8	61,5	84,4	103,8	138	178,5
Heating power with coils 3 rows	7	kW	33,5	45,6	62,7	82	110,8	137,3	182,5	234,4
Heating power with coils 4 rows	7	kW	40	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating power with coils 6 rows	7	kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Heating power with coils 2 rows	8	kW	14,7	19,8	27,3	36	49	60,3	80,1	103,8
Heating power with coils 3 rows	8	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating power with coils 4 rows	8	kW	23,4	31,9	43,7	57	76,3	94,8	125,8	161,4
Heating power with coils 6 rows	8	kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
COILS										
Manifolds diameter 2 rows			1"	1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 3 rows			1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 4 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"
Manifolds diameter 6 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"
Condensate discharge diameter			1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F
FAN			280	280	315	315	400	400	500	500
MOTOR										
Power supply		V/n°/Hz	400V/3/50Hz							
Power/Poles (base unit)		kW/n°	0,75 / 4	1,1 / 4	1,5 / 4	2,2 / 4	2,2 / 4	4 / 4	4 / 4	5,5 / 4
Power/Poles (enhanced unit)		kW/n°	1,1 / 4	1,5 / 4	2,2 / 4	3/4	3/4	5,5 / 4	5,5 / 4	7,5 / 4
FILTERS										
Plane filters efficiency	9		G4	G4	G4	G4	G4	G4	G4	G4
Compact filters efficiency (accessory)	9		F7	F7	F7	F7	F7	F7	F7	F7
Mouth sound pressure	10		52	54	55	57	56	58	59	64

note (1): with cooling coil ;

note (2): with heating coil, base unit;

note (3): with heating coil, enhanced unit;

nota (4): alla portata aria massima 1 with cooling coil 4 rows and filters G4 fouling medium life

note (5): Air temperature enters 27° C d.b. 19° C w.b.; water temperature (In-Out) 7° C - 12°C.;

nota (6): Air temperature enters 27° C d.b 19° C w.b.; water temperature (In-Out) 5° C - 10°C.;

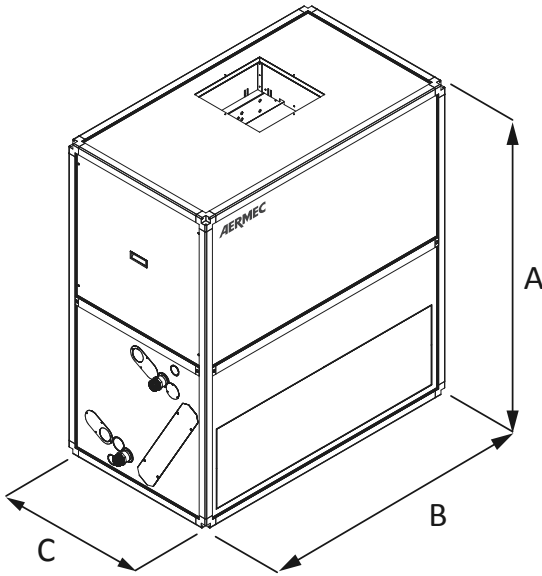
nota (7): Air temperature enters 10° C; water temperature (In-Out) 70° C - 60°C.;

nota (8): Air temperature enters 10° C; water temperature (In-Out) 45° C - 40°C.;

nota (9): comply with the regulation EN 779;

nota (10): d = 10 m, Q =2, base version, at min. pressure, nominal air flow with cooling coil.

Dimensions (mm)



TN models			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Height	A	mm	1334	1334	1497	1497	1822	1822	2309	2309
Width	B	mm	928	1172	1334	1659	1659	1984	1984	2472
Lenght	C	mm	684	684	765	765	828	828	1172	1172
Weight (base version coil 6R)		kg	190	220	275	320	415	475	630	807
Weight (enhanced version coil 6R)		kg	200	223	283	321	417	502	657	813

AERMEC



02. HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential.

The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served. The catalogued range of nominal available air flow rates is from 100 to around 16.100 m³/h.

RePuro

Heat recovery unit



RePuroDistribution

Aermec RePuroDistribution

This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and comfortable in all its cycle of life. Examples of plenums for air distribution, which could be equipped of: electric heater, germicidal lamp, water-exchanger.



PLS
with multi-way flange



PLS_M
with one-way flange

Characteristics

RePuro is an innovative counter-flow heat recovery system which ensures the correct renewal of air to indoor environments. Through the use of up to 90% high efficiency heat exchangers **RePuro** allows the introduction of fresh air at a temperature close to that of the room concerned, reducing energy costs that would be incurred in exchanging the air in traditional ways or by mechanical ventilation alone. **PLASMACLUSTER** ionising filter. Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. The result is in the air: you can finally breathe clean, odour-free ionised air.

• Version

RePuro standard

RePuro_R with electric pre-heater for continuous operation in cold climates up to -15°C.

• Installation

Wall installation and ceiling: (100÷170)

upright (250÷650)

- Heat exchanger with hexagonal shape to increase the surface area.
- Heat exchanger easily removed from the front for cleaning or replacement.
- Casing in galvanised sheet steel with internal insulation.
- Standard filter on fresh air G4
- Standard filter on extract air G2.
- Filters can be removed for cleaning or replacement.
- All units are equipped with frost protection system for climates > -10°C.
- High efficiency of 90% and above (UNI EN 308).
- Free-cooling in mid-seasons through the automatic by-pass function (RePuro 250-350-450-550-650).
- **By-pass** no frost (RePuro 450-550-650)
- Ionizer filter **PLASMACLUSTER** as standard.
- Flow rate control 0-100% of nominal air flow rate.

- Direct drive centrifugal fans, with "Brushless" EC high efficiency variable speed electric motors (ERP2015).
- Microprocessor controller with interface capability to the VMF System.
- Monitoring of the units with remote wired control panel (supplied as standard). Innovative design, extremely slim, allows control of functions via a touch keypad with LCD display. The panel cable is 6 metres long supplied as standard. Activation of the electric heater in the RePuro_R version. Front in light grey colour PANTONE COOL GRAY 1C.
- Easy to wall mount with standard supplied mounting plate, or floor mount with anti-vibration mounts AVM accessory.
- Adaptable to existing systems.
- Compact size.
- Quiet operation.
- **The installation requires a condensate drain system.**

Accessories

- **AVM** : Anti-vibration mounts
- **SSR** : Bearing bracket (RePuro 250-350-450-550-650)
- **FF7** : Air filters for fresh air with F7 efficiency
- **KSAE** : External air temperature sensor
- **PLS** : Plenum with acoustic lining equipped with multi-way flange to ensure a uniform distribution in all treated areas.
The plenum is configured with:
 - **PLS_E** electric heater
 - **PLS_L** germicidal lamp
 - **PLS_W** water coil (requires accessory valve)
- **PLSM** : Plenum with acoustic lining equipped with one-way flange.
The plenum is configured with:
 - **PLSM_E** electric heater
 - **PLSM_L** germicidal lamp
 - **PLSM_W** Plenum with acoustic lining equipped with one-way flange)
- **VCH** : Kit consisting of powered 3-way valve, copper couplings and pipes. Combined with

the accessory PLS/PLSM in the configuration with the water heat exchanger. In cooling recovery it requires an accessory tray BC.

- **VCHR** : such as VCH, but with isolation as.
- **VCHD** : such as VCH, but with 2-way valve instead of 3-way one.
- **BC** : Bacinella ausiliaria raccolta condensa. BC 10 per installazione verticale. BC 20 per installazione orizzontale.
- **BC** :Auxiliary condensate drip tray. BC10 for vertical installation. BC20 for horizontal installation.
- **VMF-E5B** : White recessed panel, with backlit graphic LCD and touch keypad allowing the centralised command/control of a complete hydronic system consisting of:
 - Heat recovery units: up to 3 outputs for heat recovery units programmed according to time-clocks and/or by measuring the air quality obtained with the VMF-VOC accessory;
 - Fan coil units: up to 64 fan coil zones comprising 1 master + maximum 5 slaves;

- Chiller/heat pump unit equipped with controls Modu_Control, GR3 and pCO² / pCO³ (required accessory RS 485 interface respectively MODU-485A, AER485, AER485P2 / AER485P1),
- Circulators: maximum of 12 configurable zone circulators;
- Boiler: boiler enable for hot water production;
- Domestic hot water module: complete management of the production of domestic hot water through the control of diverting valve/circulator, immersion heater, storage tank temperature sensor, anti-legionella cycle.
- **VMF-E5N** : Variant of the **VMF-E5B** panel but with black coloured plastic.
- **VMF-VOC** : Accessory for measuring air quality (see relevant point in the description of the VMF-E5B panel).
- **VMF-CRP** : Accessory module for the control of the boilers, pumps and heat recovery units.

Mod. RePuro	Vers.	100	170	250	350	450	550	650
AVM	All	-	-	•	•	•	•	•
SSR	All	-	-	•	•	•	•	•
FF7	All	170	170	350	350	650	650	650
KSAE	All	•	•	•	•	•	•	•
Delivery plenum with multiway flange								
PLS350		•	•	•	•	-	-	-
PLS350W	(1)	•	•	•	•	-	-	-
PLS350E		•	•	•	•	-	-	-
PLS350L		•	•	•	•	-	-	-
PLS350WE	(1)	•	•	•	•	-	-	-
PLS350WL	(1)	•	•	•	•	-	-	-
PLS350WLE	(1)	•	•	•	•	-	-	-
PLS350LE		•	•	•	•	-	-	-
PLS650		-	-	-	-	•	•	•
PLS650W	(1)	-	-	-	-	•	•	•
PLS650E		-	-	-	-	•	•	•
PLS650L		-	-	-	-	•	•	•
PLS650WE	(1)	-	-	-	-	•	•	•
PLS650WL	(1)	-	-	-	-	•	•	•
PLS650WLE	(1)	-	-	-	-	•	•	•
PLS650LE		-	-	-	-	•	•	•
Delivery plenum with one-way flange								
PLSM350		•	•	•	•	-	-	-
PLSM350W	(1)(2)	•	•	•	•	-	-	-
PLSM350E		•	•	•	•	-	-	-
PLSM350L		•	•	•	•	-	-	-
PLSM350WE	(1)(2)	•	•	•	•	-	-	-
PLSM350WL	(1)(2)	•	•	•	•	-	-	-
PLSM350WLE	(1)(2)	•	•	•	•	-	-	-
PLSM350LE		•	•	•	•	-	-	-
PLSM650		-	-	-	-	•	•	•
PLSM650W	(1)(2)	-	-	-	-	•	•	•
PLSM650E		-	-	-	-	•	•	•
PLSM650L		-	-	-	-	•	•	•
PLSM650WE	(1)(2)	-	-	-	-	•	•	•
PLSM650WL	(1)(2)	-	-	-	-	•	•	•
PLSM650WLE	(1)(2)	-	-	-	-	•	•	•
PLSM650LE		-	-	-	-	•	•	•
Kit for plenum								
VCH	(3)	•	•	•	•	•	•	•
VCHR	(3)	•	•	•	•	•	•	•
VCHD	(3)	•	•	•	•	•	•	•
BC10		•	•	•	•	•	•	•
BC20		•	•	•	•	•	•	•
VMF-system								
VMF-CRP		•	•	•	•	•	•	•
VMF-VOC		•	•	•	•	•	•	•
VMF-E5N		•	•	•	•	•	•	•
VMF-E5B		•	•	•	•	•	•	•

(1) Combination with three-way valve kit required.

(2) If you intend to use all the after-heating coil system, or in all the situations in which the air temperature inside the pipe could provoke condensation on external surfaces of pipe, it is mandatory to isolate adequately the installation components.

(3) in the cold-functioning they require the accessory BC10 o 20

Technical data

Mod.	RePuro	100	170	250	350	450	550	650
Nominal air flow rate	m ³ /h	100	170	250	350	450	550	650
Available static pressure	Pa	85	20	195	133	100	120	70
Winter recovery efficiency	%	94,4	91,2	91,9	89,4	90,3	88,6	87
Recovered heating capacity	W	957	1573	2329	3171	4118	4940	5734
Winter recovery efficiency (1)	%	90,6	85,3	86,3	82,2	83,7	81	78,4
Recovered heating capacity (1)	W	601	963	1433	1910	2500	2957	3386
Summer recovery efficiency	%	90,6	85,3	86,4	82,2	83,7	81	78,5
Recovered cooling capacity	W	180	289	430	573	750	887	1015

Nominal air flow rate	(2) m ³ /h	75	125	150	200	300	350	450
Available static pressure	Pa	135	110	331	376	210	300	270
Winter recovery efficiency	%	95,7	93,2	94,8	93,3	93	92,1	90,3
Recovered heating capacity	W	728	1181	1441	1891	2830	3267	4118
Winter recovery efficiency	%	92,7	88,6	91,1	88,6	88,2	86,6	83,7
Recovered heating capacity	W	462	735	908	1177	1758	2014	2500
Summer recovery efficiency	%	92,7	88,6	91,2	88,7	88,3	86,7	83,7
Recovered cooling capacity	W	138	220	272	353	527	604	750

Nominal air flow rate	(2) m ³ /h	50	75	75	100	150	175	200
Available static pressure	Pa	185	210	426	526	310	430	485
Winter recovery efficiency	%	97	95,7	97,2	96,4	96,2	95,7	95,1
Recovered heating capacity	W	492	728	739	977	1463	1697	1928
Winter recovery efficiency (1)	%	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered heating capacity (1)	W	315	462	475	623	932	1077	1218
Summer recovery efficiency	%	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered cooling capacity	W	95	138	142	187	280	323	365

GENERAL DATA

Maximum power input	W	45	65	160	180	220	280	360
Power supply	V/ph/Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz

Winter recovery

Exhaust air temperature 20°C b.s. 50% u.r.; Fresh air temperature -10°C b.s. 80% u.r.

(1) Exhaust air temperature 25°C b.s. 27% u.r.; Fresh air temperature 5°C b.s. 50% u.r. (UNI EN308)

Summer recovery

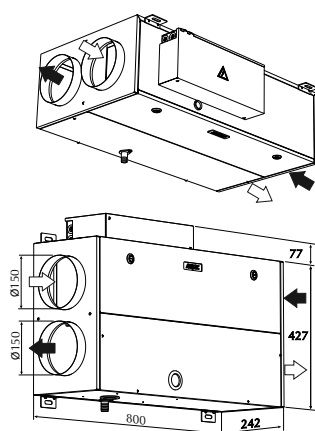
Exhaust air temperature 26°C b.s. 50% u.r.; Fresh air temperature 32°C b.s. 50% u.r.

(2) capacities obtained with air flows different from nominal ones.

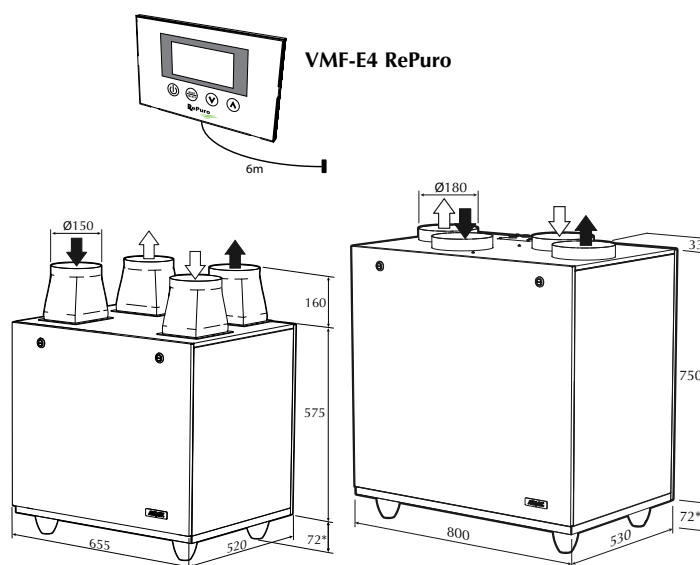
Dimensions (mm)

➡ Extract air

➡ Fresh air



RePuro 100 - RePuro 170



RePuro 250 - RePuro 350

RePuro 450 - RePuro 550 - RePuro 650

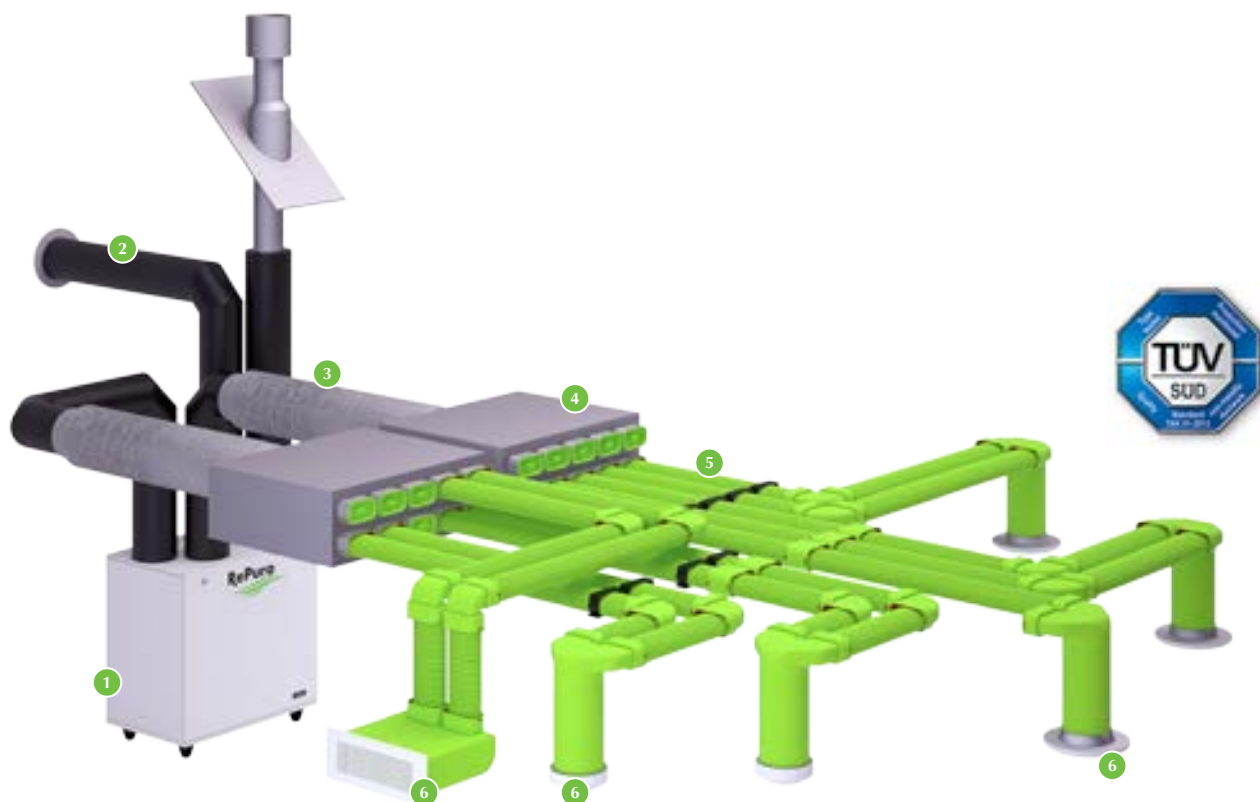
* = with AVM accessory

Mod. RePuro	Vers.	100	170	250	350	450	550	650
Weight (kg)	tutte	25	25	48	48	55	55	55

RePuroDistribution

Aermec RePuroDistribution

This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and comfortable in all its cycle of life.



- **EASY "PLUG & PLAY" INSTALLATION**
- **LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION**
- **ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES**
- **LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS**
- **THE DUCT SEMI-OVAL IS CERTIFIED TÜV**

Please note:

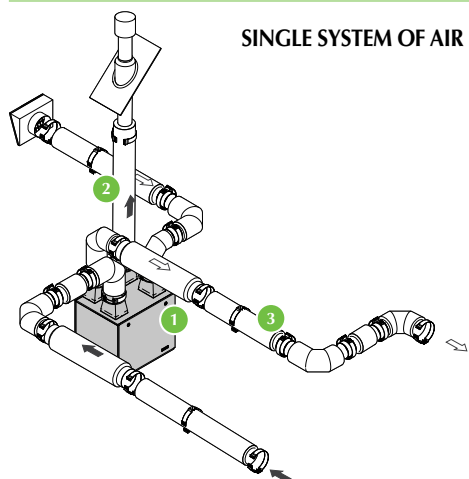
The picture shows as an indication only an example of an installation with semi-oval, semi-rigid antibacterial ducts, composed by:

- ① heat recovery unit RePuro
- ② Duct with external air intake/expulsion
- ③ Interconnection between RePuro and distribution box
- ④ Distribution box
- ⑤ Air distribution with semi-oval semi-rigid antibacterial ducts.
- ⑥ Terminals with nozzles and design grilles

The Aermec range in addition to point n. 5 ⑤, provides two other air distribution system:

- air distribution with round semi-rigid ducts;
- air distribution with rigid rectangular ducts.

SINGLE SYSTEM OF AIR INLET AND EXHAUST CONNECTED TO REPURO



- 1 Heat recovery unit RePuro
- 2 Ducts with external air intake/expulsion
- 3 Interconnection between RePuro and distribution plenum

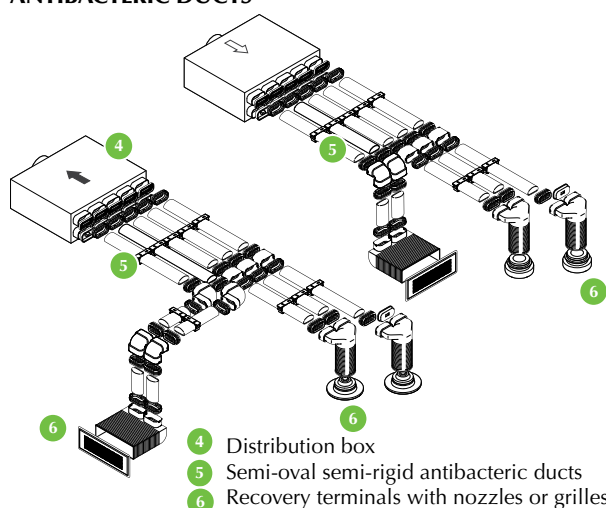


Some examples of the components

		n° in to package	RePuro						
			100	170	250 250R	350 350R	450 450R	550 550R	650 650R
COMPONENTS FOR EXTERNAL AIR INTAKE/EXPULSION SYSTEM									
TV-150	vertical black roof terminal DN150	1	•	•	•	•	-	-	-
T25-150	Underlay for pitched roofs 5-25° DN150	1	•	•	•	•	-	-	-
T45-150	Underlay for pitched roofs 25-45° DN150	1	•	•	•	•	-	-	-
T55-150	Underlay for pitched roofs 35-55° DN150	1	•	•	•	•	-	-	-
TP-150	Rose window deal for flat roofs DN150	1	•	•	•	•	-	-	-
TAP-150B	Suction wall terminal white DN150	1	•	•	•	•	-	-	-
TAP-150N	Suction wall terminal black DN150	1	•	•	•	•	-	-	-
CCI-150	Insulated duct L=2000mm - DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Clip locking collar for ducts DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
TV-180	Terminal with vertical black roof DN180	1	-	-	-	-	•	•	•
T45-180	Underlay for pitched roofs 25-45° DN180	1	-	-	-	-	•	•	•
TP-180	Rose window deal for flat roofs DN180	1	-	-	-	-	•	•	•
TAP-180B	Suction wall terminal white DN180	1	-	-	-	-	•	•	•
TAP-180N	Suction wall terminal black DN180	1	-	-	-	-	•	•	•
CCI-180	insulated duct L=2000mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Locking collar joint DN180	16	-	-	-	-	•	•	•
CLF-180	Collare di fissaggio giunto - canale DN180	16	-	-	-	-	•	•	•
SC-180	Silencer L=1500mm - DN180	1	-	-	-	-	•	•	•
COMPONENTS OF INTERCONNECTIONS BETWEEN RePuro UNITS, PLENUM AND SILENCERS									
CCI-150	Insulated duct L=2250mm DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Duct clip joints DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
CCI-180	Insulated duct L=2250mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Duct clip joint DN180	16	-	-	-	-	•	•	•
CLF-180	Locking collar joint - duct DN180	16	-	-	-	-	•	•	•
SC-180	Silenziatore L=1500mm - DN180	1	-	-	-	-	•	•	•

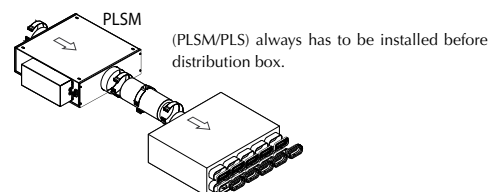
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website www.aermec.com.

DISTRIBUTION SYSTEM WITH SEMI-OVAL SEMI-RIGID ANTIBACTERIC DUCTS



Aermec, offers the possibility of any post-treatment, of mono-multi flange delivery plenum (PLSM/PLS) with different combinable accessories :

- Electric heater
- Germicidal lamp
- Water exchanger



n° in to package	RePuro						
	100	170	250 250R	350 350R	450 450R	550 550R	650 650R

COMPONENTS OF DISTRIBUTION SEMI-OVAL SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY .

BDX6-150	Distribution box 6 nozzles with deadening DN150	1	•	•	•	•	•	•	•
BDSX10-150	Distribution box 10 nozzles with deadening and silencer bafflers DN150	1	•	•	•	•	•	•	•
BDX12-150	Distribution box 12 nozzles with deadening DN150	1	•	•	•	•	•	•	•
BDSX15-180	Distribution box 15 nozzles with deadening and silencer bafflers DN180	1	-	-	-	-	•	•	•
CO30	Semi-oval semi-rigid antibacteric duct L=30	1	•	•	•	•	•	•	•
CO50	Semi-oval semi-rigid antibacteric duct L=50m	1	•	•	•	•	•	•	•
SMC	Mounting bracket for semi-oval semi-rigid antibacteric ducts	10	•	•	•	•	•	•	•
ADT	Sealing ring for semi-oval semi-rigid antibacteric ducts	8	•	•	•	•	•	•	•
CVO	Vertical curve for semi-oval duct	3	•	•	•	•	•	•	•
COO	Horizontal curve for semi-oval semi-rigid antibacteric ducts	2	•	•	•	•	•	•	•
TO	Cap for semi-oval semi-rigid antibacteric ducts	5	•	•	•	•	•	•	•
GCO	Joint for semi-oval semi-rigid antibacteric ducts	4	•	•	•	•	•	•	•
GOO90	90° curve to attach semi-oval semi-rigid antibacteric ducts with round semi-rigid ducts.	1	•	•	•	•	•	•	•
AD125X2	Adaptor for nozzle(x 2) - DN125	1	•	•	•	•	•	•	•
CGP	Collector for flat grille (x 2) - (309x86)	1	•	•	•	•	•	•	•
ADG	Adaptor for grille (140x140)	1	•	•	•	•	•	•	•
RDP	Flow regulator for semi-oval semi-rigid antibacteric ducts	10	•	•	•	•	•	•	•

TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE

Some examples



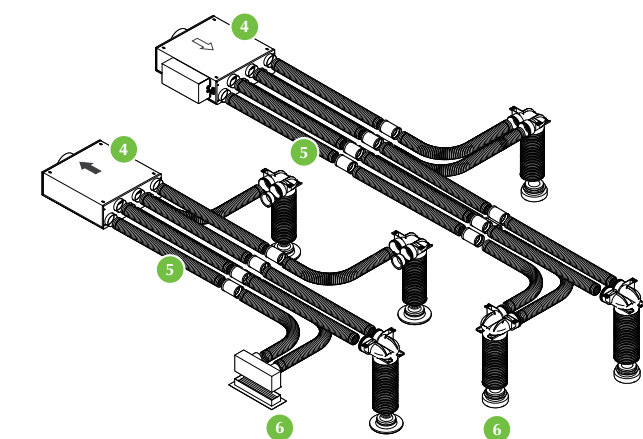
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website www.aermec.com

GRM	Painted steel grille RAL9010	1	•	•	•	•	•	•	•
GRAI	Stainless steel grille	1	•	•	•	•	•	•	•
BES-125	Extraction nozzle DN 125	6	•	•	•	•	•	•	•
BIM-125	Input nozzle DN125	3	•	•	•	•	•	•	•

TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE

GRQM	Square grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRRM	Rectangular grille with fixed aluminium fins	1	•	•	•	•	•	•	•
GRQB	Square grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRB	Rectangular grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRQL	Square grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•
GRRL	Griglia rettangolare con alette verticali orientabili alluminio	1	•	•	•	•	•	•	•

DISTRIBUTION SYSTEM WITH ROUND SEMI-RIGID DUCTS

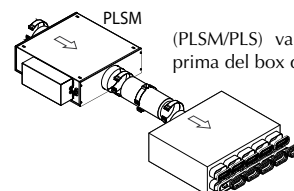


- 4 Distribution box
- 5 Semi-rigid round ducts
- 6 Recovery terminals with nozzles and design grilles



Aermec offers the opportunity for an eventual after-treatment of intake plenum mono-multi flange (PLSM/PLS) with different combinable accessories:

- Electric heater
- Germicidal lamp
- Water exchanger



(PLSM/PLS) va installato sempre prima del box di distribuzione

n° in to package	packa-ge	RePuro					
		170	250	350	450	550	650
		250R	350R	450R	550R	650R	

COMPONENTS FOR DISTRIBUTION ROUND SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY								
BDX6T-150	Deadening Distribution box with 6 nozzles Ø75 (internal) - DN150	1	•	•	•	•	-	-
BDX10T-150	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-
BDSX10T-150	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-
BDSX15T-180	Distribution box 15 nozzles with deadening and silenced septa Ø75 (internal) - DN180	1	-	-	-	-	•	•
CT50	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	•	•	•	•	•	•
AD125X2T	Adaptor for nozzles 2xØ75mm - DN125	1	•	•	•	•	•	•
ADTT	Sealing ring for round ducts Ø75mm	10	•	•	•	•	•	•
TCT	Cap for round ducts Ø75mm	5	•	•	•	•	•	•
GCT	Joint for round ducts Ø75mm	4	•	•	•	•	•	•
ADGR2T	Adaptor for rectangular grille 2xØ75mm (external)	1	•	•	•	•	•	•
ADGQ1T	Adaptor for rectangular grille 1xØ75mm (external)	1	•	•	•	•	•	•

TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE

Some examples



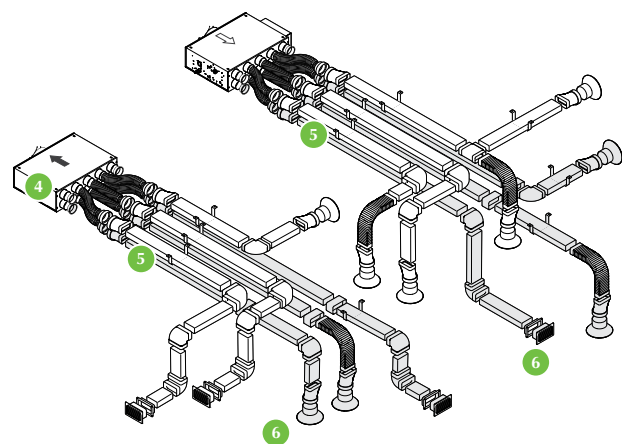
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website www.aermec.com

GRM	Metal grille RAL9010	1	•	•	•	•	•	•
GRAI	Steinless steel grille	1	•	•	•	•	•	•
BES-125	Extraction nozzle DN 125	6	•	•	•	•	•	•
BIM-125	Input nozzle DN125	3	•	•	•	•	•	•

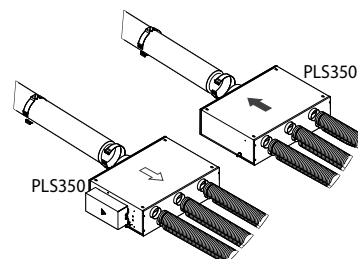
TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE

GRQM	Square grille with fixed aluminium fins	1	•	•	•	•	•	•
GRRM	Rectangular grille with fixed aluminium fins	1	•	•	•	•	•	•
GRQB	Square grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•
GRRB	Rectangular grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•
GRQL	Square grille with vertical swinging aluminium fins	1	•	•	•	•	•	•
GRRL	Rectangular grille with vertical swinging aluminium fins	1	•	•	•	•	•	•

DISTRIBUTION SYSTEM WITH RECTANGULAR RIGID DUCTS



- 4 distribution Plenum PLS
- 5 Rectangular rigid ducts
- 6 Recovery terminals with nozzles and design grilles



In this system Plenum PLS can be used also as a simple distribution box without any accessory for post-treatment.

4	distribution Plenum PLS	n° in to package	RePuro							
5	Rectangular rigid ducts		100	170	250 250R	350 350R	450 450R	550 550R	650 650R	
6	Recovery terminals with nozzles and design grilles									
COMPONENTS FOR RECTANGULAR RIGID DISTRIBUTION WITHIN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND INTAKE										
CPR	Rectangular flat duct 55x110x2000mm	6	•	•	•	•	•	•	•	
GRT	Rectangular joint 55x110mm	5	•	•	•	•	•	•	•	
CRT	Rectangular terminal frame 55x110mm	4	•	•	•	•	•	•	•	
ARC	Rectangular/Circular adaptor 55x110mm/ Ø100	6	•	•	•	•	•	•	•	
GRCV90	Vertical crank 90° Rectangular Circular Adaptor55x110mm	4	•	•	•	•	•	•	•	
GRO45	Crank 45° Rectangular Horizontal 55x110mm	8	•	•	•	•	•	•	•	
GRO90	Crank 90° Rectangular Horizontal 55x110mm	8	•	•	•	•	•	•	•	
GRV90	Crank 90° rectangular vertical 55x110mm	6	•	•	•	•	•	•	•	
TR	Rectangular terminal cap	4	•	•	•	•	•	•	•	
RMC150	Multi-cone reducer Ø100 - Ø80	4	•	•	•	•	•	•	•	
RMC125	Multi-cone reducer Ø125 - Ø100	4	•	•	•	•	•	•	•	
RTR	Rectangular T joint 55x110mm	3	•	•	•	•	•	•	•	
CR	Rectangular collar 55x110mm	10	•	•	•	•	•	•	•	
MFR	Rectangular flexible sleeve 55x110x500mm	1	•	•	•	•	•	•	•	
CT50	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	•	•	•	•	•	•	•	
ADTT	Sealing ring for round ducts Ø75mm	10	•	•	•	•	•	•	•	
CPVC	Glue for PVC	2	•	•	•	•	•	•	•	
NAL	Aluminium tape 50x0,3mm Lenght= 50m	5	•	•	•	•	•	•	•	

ACCESSORIES FOR AIR DIFFUSION AND RECOVERY

Some examples



BA



BCI



GRIR

Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website www.aermec.com

GRIR	Rectangular template grille 55x110mm	6	•	•	•	•	•	•	•	•
GRIC	Circular template grille Ø100mm	10	•	•	•	•	•	•	•	•
BCI	Circular template nozzle with net Ø100mm	10	•	•	•	•	•	•	•	•
BFR	Self-adjusting template nozzle Ø100mm	6	•	•	•	•	•	•	•	•
BA30	Self-adjusting nozzle 30m³/h Ø125mm	5	•	•	•	•	•	•	•	•
BA60	Self-adjusting nozzle 60m³/h Ø125mm	5	•	•	•	•	•	•	•	•

Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website www.aermec.com.

TRS Heat recovery unit with enthalpic heat exchanger



These units allow the extraction of a fixed amount of air from the room to be replaced with fresh air. Static type heat recovery unit with high efficiency in counter-flow, consisting of flat sheets of special paper. This particular material allows a "total" type heat exchange as both sensible heat and the latent heat (moisture) are recovered with average efficiency of 75% on the temperature (depending on the models) and 60% on the enthalpy, with high performance even in summer. The air flows are kept separated by a suitable sealing.

Features

- Available in 6 sizes for horizontal installation
- High efficiency superior to that obtained from the units with only the recovery of sensible heat
- Free-cooling during spring and autumn thanks to automatic by-pass function
- Double suction centrifugal fans, directly coupled to high-efficiency "Brushless DC" electric motors, equipped with adjustable speed using an electronic regulator to vary the flow rate
- Control of the units between the control panel with LCD display (TRSCP accessory) or Kit with wired control panel with LCD display and remote control (TRSCPR accessory)
- Enthalpic heat recovery unit with hexagonal shape to increase the exchange surface
- Enthalpic heat recovery unit can be easily removed laterally for cleaning or replacement
- Self-supporting galvanized steel metal panels with insulation.
- Compact size for installation in suspended ceilings
- Inlet air filter, both on the external air inlet side and on the fresh air from the room side
- Synthetic filter on the internal air inlet with class G4
- Filters laterally removable for cleaning or replacement
- Quiet operation
- The installation does not require the condensate discharge system

Accessories

It is mandatory to use one of the two accessories as they are essential to the operation of the units:

- **TRSCP:** Wired control panel with LCD display for controlling the On-Off functions, speed selection, weekly programmable timer, automatic Free-Cooling function. IR receiver for operation coupled to the IR remote control accessory. Recessed wall mounting in "module 502" electrical boxes.
- **TRSCPR:** Remote control and wired control panel with LCD display for control of the On-Off functions, speed selection, weekly programmable timer, automatic Free-Cooling function. IR receiver for operation coupled to the IR remote control accessory. Recessed wall mounting in "module 502" electrical boxes.

Compatibility of accessories						
	TRS15	TRS25	TRS35	TRS50	TRS80	TRS100
TRSCP	✓	✓	✓	✓	✓	✓
TRSCPR	✓	✓	✓	✓	✓	✓

Technical data

HEAT RECOVERY UNIT			TRS15	TRS25	TRS35	TRS50	TRS80	TRS100
Winter operation								
Efficiency	Temperature	%	77	76	77	76.5	73	73.5
	Enthalpy	%	62	62	63	62.3	59	59.5
	Power recovered at full speed	kW	1.3	2.2	3.1	4.3	6.5	8.2
Summer operation								
Efficiency	Temperature	%	63	62	63	62.5	59	59.5
	Enthalpy	%	60	60	61	60	57	57.5
	Power recovered at full speed	kW	0.5	0.8	1.2	1.7	2.5	3.2
Nominal air flow rate	Maximum	m ³ /h	150	250	350	500	800	1000
	Average	m ³ /h	150	250	350	500	800	780
	Minimum	m ³ /h	100	160	270	360	625	650
Useful static pressure (*)	Maximum	Pa	85	85	90	100	150	150
	Average	Pa	70	65	60	60	100	100
	Minimum	Pa	50	30	30	30	40	40
Input power	Maximum	W	80	90	120	135	300	310
	Average	W	55	60	80	110	190	200
	Minimum	W	30	35	45	60	110	125
♪ Sound pressure level	Maximum	dB(A)	26	27	31	33	38	39
	Average	dB(A)	24	26	29	31	36	37
	Minimum	dB(A)	22	22	25	27	32	33
Power supply		V/ph/Hz	230/1/50					

Performance values refer to the following conditions:

(*) Values referring to the nominal flow net of heat recovery unit and filter pressure drops

♪ Sound pressure level (A-weighted) measured in free field at a distance of 1.5 metres from the inlet of the unit. The operation noise level generally differs from the values shown, depending on operating conditions, reflected noise and surrounding noise.

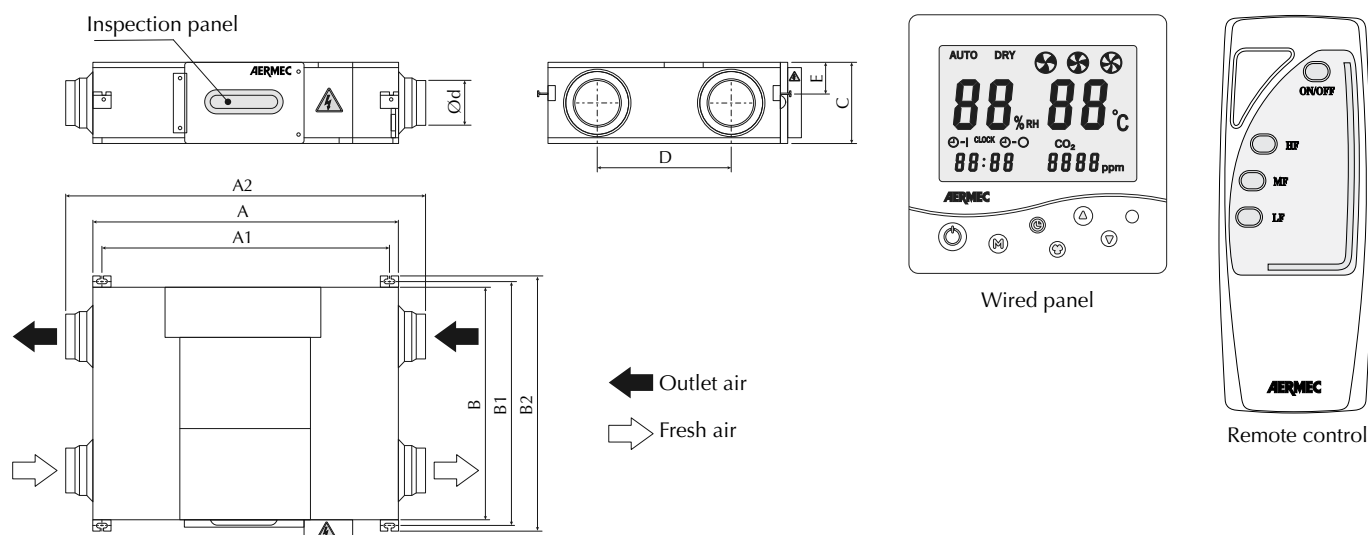
■ Nominal conditions in winter operation:

- external air: -5°C W.B.; R.H. 80%
- room air: 20°C W.B.; R.H. 50%

■ Nominal conditions in summer operation:

- external air: 32°C W.B.; R.H. 50%
- room air: 26°C W.B.; R.H. 50%

Dimensions (mm)



	A	A1	A2	B	B1	B2	C	D	E	Ød	Weight (kg)
TRS15	885	815	1074	666	720	779	272	342	110	100	27
TRS25	885	815	1074	666	720	779	272	342	110	150	27
TRS35	885	815	1074	806	860	919	272	482	110	150	32
TRS50	970	910	1130	997	1053	1112	312	728	38	200	42
TRS80	1322	1252	1486	882	936	994	390	431	169	250	63
TRS100	1322	1252	1486	1132	1186	1244	390	681	169	250	76

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

UR Heat recovery unit

Variable Multi Flow

VMF



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 with the VMF system

For further system information please refer to the specific documentation.

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	0,30	0,70	0,70	1,12	1,12	2,00	4,00
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	120	120	150
	UR E	115	130	160	140	110	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	2,5	2,5	5	5	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	m ²	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

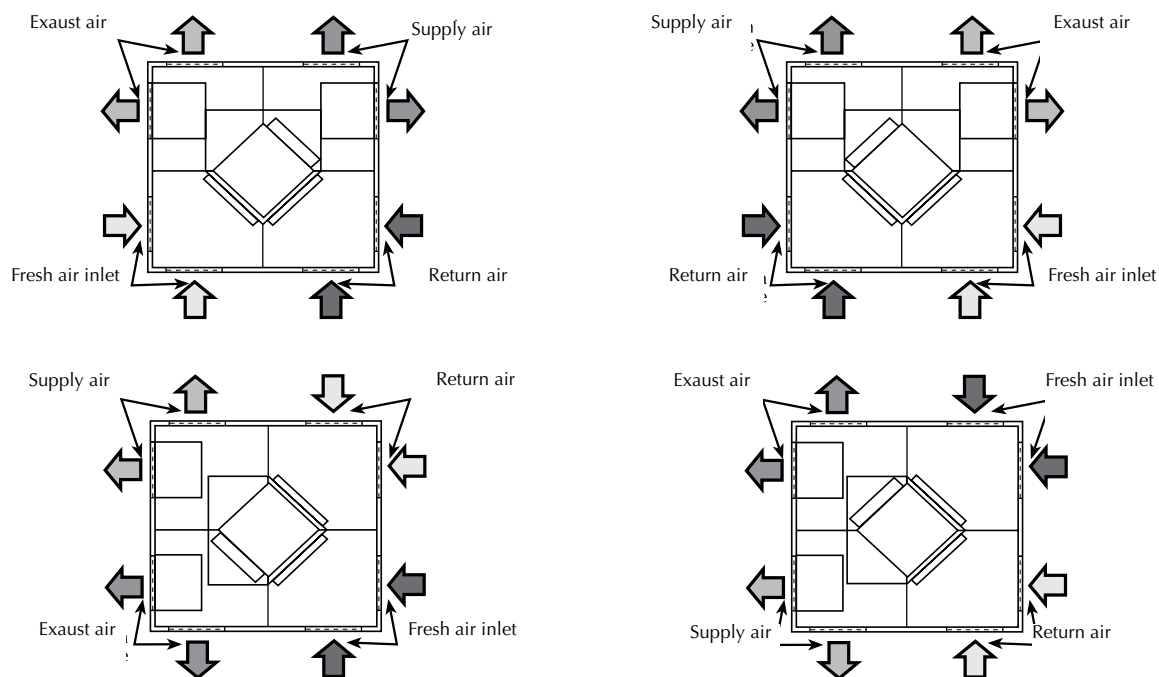
Power supply = 1~ 230V 50Hz (3N~ 400V 50 Hz per le resistenze elettriche).

Performance values refer to the following conditions:

- room air temperature 20 °C;
- ambient air temperature -5 °C.

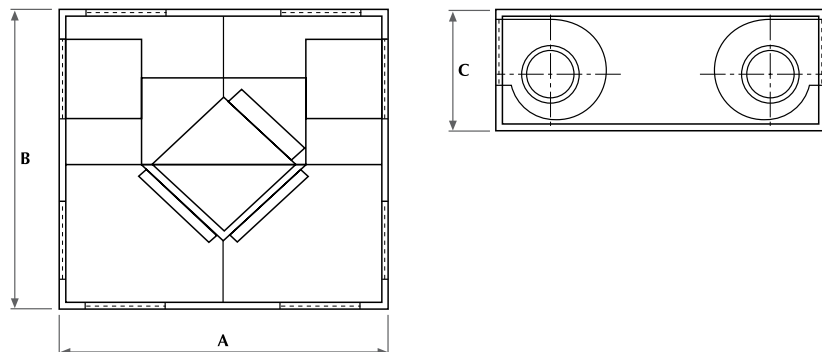
- (1) air temp. 8 °C - water temp. 80/70 °C
- (2) air temp. 8 °C - water temp. 70/60 °C
- (3) air temp. 8 °C - water temp. 45/40 °C
- (4) air temp. 27 °C - HR 50% - water temp. 12/7 °C

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

RPF

**High performance heat recovery unit
with cross-current recuperator.
Nominal air flow from 790 to 4250 m³/h.**



- **CROSS-CURRENT HEAT RECOVERY WITH PERFORMANCES SUPERIOR THAN 90%**
- **PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS FOR ENERGY COSTS REDUCTION**

Features

- Heat recovery units **RPF** have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving. Always more in the modern plant design there is the demand to have a Controlled Mechanical Ventilation, which implies the expulsion of conditioned air, determining a higher consumption of energy and consequently an increase of prices.

The units **RPF thanks to the cross-current heat recuperator** permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.

RPF could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.

Configurations

- **RPF_O** Horizontal right supply (not available for size 42)
- **RPF_P** Horizontal left supply (not available for size 42)
- **RPF_V** Vertical right supply
- **RPF_Z** Vertical left supply

Each of the different configurations could be further customized thanks to the choice of the accessories (**please refer to the technical documentation**)

- **The structure is formed by aluminium profiles with thermic cut**, connected by nylon angles charged with glassfibre. The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with

density 45 kg/m³. The expandent of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential). The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986. Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

- Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.
- Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow. The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available. The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air. Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].
- Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate. The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed.

Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract. It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

- Regulation
Constituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position.
The function of regulation are:
 1. Ventilation control (manual control of the standard fans speed);
 2. Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);
 3. Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation, ranges of time;
 4. Complete interfaceability with BMS systems.

Functionality and technological advantages

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.

The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building. For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

- **VERY HIGH VENTILATION EFFICIENCY**

Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.

Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.

A particular adaptive logic permits to adjust the effective air capacity required from the system with more consequent advantages in terms of reduction of consumptions.

- **MAXIMUM EFFICIENCIES**

In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery.

The key-concept on which is based the RPF proposal are:

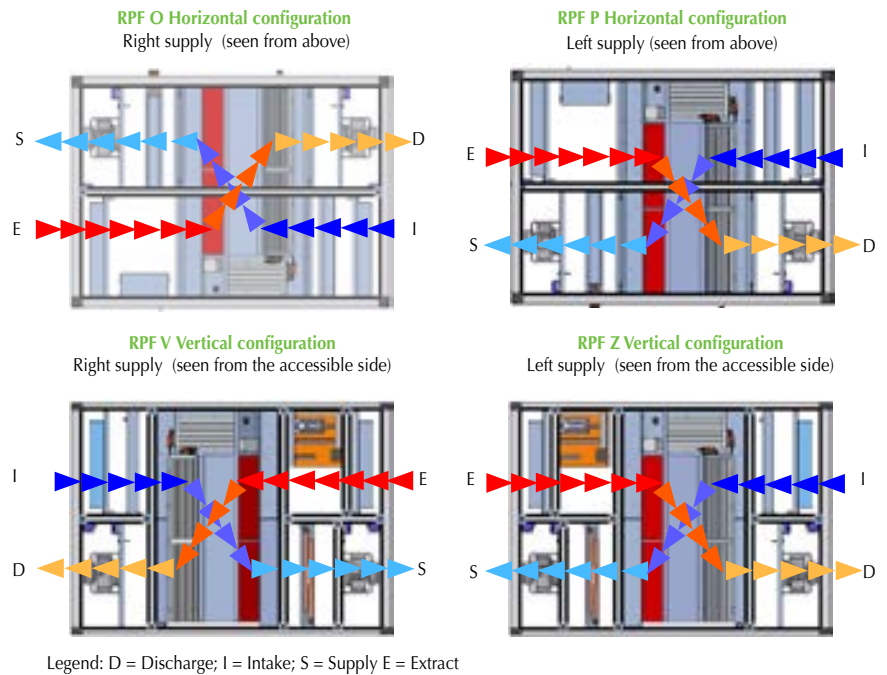
- Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
- Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for m^3/h of total processed capacity);
- High efficiency filtration and low pressure drops;
- Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
- Compactness of dimensions and logic of installation "plug and play".

- **AIR QUALITY IN ROOM**

Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.

Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

Basic configuration



Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC)



Static cross-current high efficiency recuperator with aluminium plates.

Technical Data

Mod. RPF		008	010	013	020	031	042
Configurations	Horizontal	•	•	•	•	•	-
	Vertical	•	•	•	•	•	•
Nominal air flow (supply/extract)	m³/h	790	1000	1300	2000	3100	4250
Minimum air flow (supply/extract)	m³/h	200	200	400	1000	1000	1300
Maximum air flow (supply/extract)	m³/h	980	1260	1530	2350	3700	4600
Available static pressure (supply/extract)	Pa	200	250	250	250	250	225
Total recovered heating capacity	(1) kW	7,2	9,1	11,8	18,1	28,1	38,5
Performance in intake (EN308)	(1) %	90	90	90	90	90	90
Fans	type	plug-fan	plug-fan	plug-fan	plug-fan	plug-fan	plug-fan
	n°	2	2	2	2	2	2
Fans Total input power	(2) kW	0,31	0,47	0,66	1,16	1,55	2,50
Input power	(2) kW	0,60	1,24	1,26	1,66	5,26	5,26
Total input current	(2) A	4,6	7,5	7,5	9,3	11,1	11,1
Power supply	V/ph/Hz	230/1N/50Hz	230/1N/50Hz	230/1N/50Hz	230/1N/50Hz	400/3/50Hz	400/3/50Hz

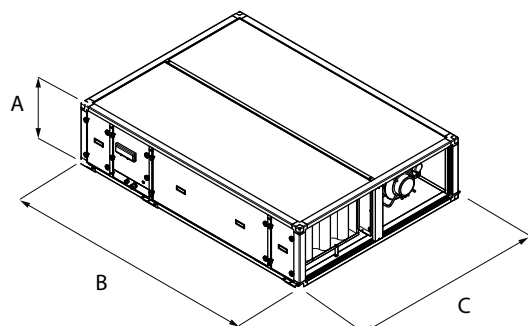
Cooling

(1) Air conditions: Intake 10°C, 90% UR; Extract 20°C, 50% UR

(2) Unit in standard configuration without accessories

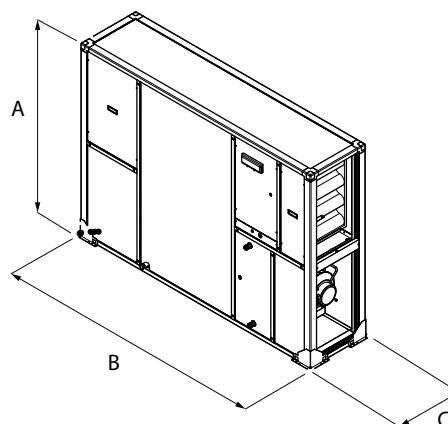
Note: For further informations please refer to the technical documentation available on the website www.aermec.com

RPF 008÷031



Horizontal Installation

RPF 008÷042



Vertical Installation

Mod. RPF (Horizontal)			008	010	013	020	031	042
Height	(mm)	A	450	450	524	560	700	-
Width	(mm)	B	1915	1915	2174	2334	2654	-
Depth	(mm)	C	1054	1258	1374	1694	1948	-
Weight when empty	(kg)	(2)	194	220	264	328	452	-

Mod. RPF (Vertical)			008	010	013	020	031	042
Height	(mm)	A	1915	1915	2174	2334	2654	2974
Width	(mm)	B	1054	1258	1374	1694	1948	1550
Depth	(mm)	C	450	450	524	560	700	1130
Weight when empty	(kg)	(2)	194	220	264	328	452	585

(2) Standard configuration of unit with accessories

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

HRS Heat recovery unit

Variable Multi Flow

VMF



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 in the 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 (030-300) INOX (390) with low condensate drain connection.
- Air filters with G4 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).
ATTENTION
the standard version of section HRS_CS he attacks battery claims, it goes to the HRS and HRS_W oriented type 03 (standard) and type 02. For the HRS guidelines and HRS_W with type 01 and type 04, you must request at time of order, the section HRS_CS with attacks right battery.
- **HRS_ED**: Regulation shutter.
- **HRS_S**: N° 4 circular connection kits for direct connection of the unit to the circular conduits.
 - HRS030S (ø 200 mm)
 - HRS090S (ø 315 mm)
 - HRS160S (ø 315 mm)
 - HRS190S (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/HRS_W version.**

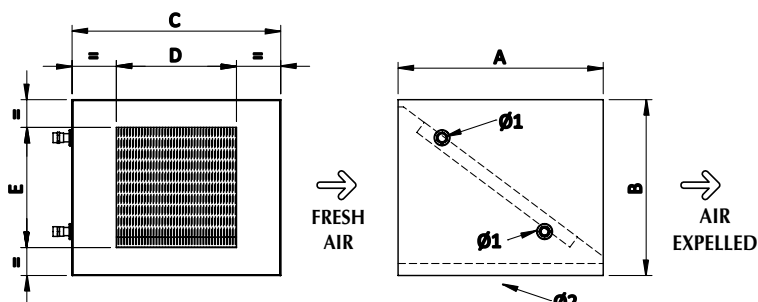
- **PX**: Control panel with switch-over. Wall installation. (from size 090 to 300)
- **PX2**: Control panel with switch-over. Wall installation. (from size 090 to 300)

Compatibility with the VMF system

For further system information please refer to the specific documentation.

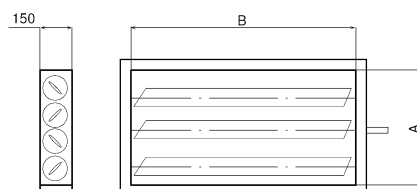
	HRS030	HRS060	HRS090 HRS090W	HRS160 HRS160W	HRS190 HRS190W	HRS230 HRS230W	HRS300 HRS300W	HRS390 HRS390W
HRS030CS	•							
HRS060CS		•						
HRS090CS			•					
HRS160CS				•				
HRS190CS					•			
HRS230CS						•		
HRS300CS							•	
HRS390CS								•
HRS030ED	•	•						
HRS090ED			•					
HRS160ED				•				
HRS190ED					•			
HRS230ED						•	•	•
HRS030S	•	•						
HRS090S			•					
HRS160S				•				
HRS190S					•			
HRS230S						•	•	•
HRS030SC	•							
HRS060SC		•						
HRS01AT	•	•	•	•	•	•	•	•
PX			•	•	•	•	•	•
PX2			•	•	•	•	•	•

HRS_CS		030	060	090	160	190	230	300	390
A	mm	430	430	500	600	700	700	700	700
B	mm	290	290	410	500	500	600	600	600
C	mm	395	395	450	450	480	660	660	710
D	mm	250	250	260	290	310	410	410	410
E	mm	230	230	210	310	330	410	410	410
ø1	mm	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ø2	mm	22	22	22	22	22	22	22	22
Peso	kg	14	14	17	21	24	29	29	34



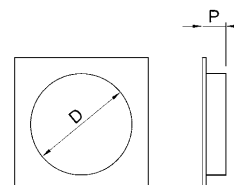
REGULATION SHUTTER (HRS_ED)

		030	090	160	190	230
A	mm	210	210	310	310	410
B	mm	180	260	290	330	410



KIT 4 CIRCULAR CONNECTION (HRS_S)

		030	090	160	190	230
D	mm	200	315	315	355	400
P	mm	50	100	100	100	100



Technical data

Model		HRS030	HRS060	HRS090	HRS160	HRS190	HRS230	HRS300	HRS390
Nominal air flow rate	m ³ /h	300	620	920	1580	1850	2250	2950	3920
Useful static pressure ¹	Pa	265	55	65	70	77	80	100	100
Total max input	A	1,2	1,8	2,2	4,4	4,8	5,2	8,3	5
Sound pressure ²	dB(A)	47	51	50	53	52	51	54	56
FANS									
Fans	n°	2	2	2	2	2	2	2	2
Power	W	90 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			
Number of speeds	n°	1 ³				3 ⁴			2 ⁴
Protection rating	IP			44			55	44	55
Isolation class						F			
Power supply	V/Ph/Hz				230/1/50Hz				400V/3N/50Hz
RECUPERATOR									
Efficiency	%	53	54	55	54	54	54	51	57
Recovered heating capacity	kW	1,5	3,1	4,7	7,9	9,2	11,2	13,9	20,6
Conditioned air temperature	°C	8,3	8,5	8,8	8,5	8,5	8,5	7,8	9,3
Efficiency	%	46	47,7	48,6	47,5	47,3	47,5	45,1	49,8
Recovered heating capacity	kW	0,27	0,58	0,88	1,48	1,73	2,11	2,63	3,86
Conditioned air temperature	°C	29,2	29,1	29,1	29,2	29,2	29,2	29,3	29,0
FILTERS									
Efficiency						G4			

Features of the water post-heating coil (HRS W)

Model				HRS090W	HRS160W	HRS190W	HRS230W	HRS300W	HRS390W
Heating capacity	kW	/	/	8.2	12.2	14.4	20.3	24.2	29.9
Geometry		/	/			25x22			
Pipes for row	n°	/	/	14	18	18	22	22	22
Rows	n°	/	/			2			
Louver pitch	mm	/	/			2.5			
Air outlet temperature	°C	/	/	33.4	30.8	30.2	33.2	31.3	29.7
Air side pressure drop	Pa	/	/	25	32	30	25	33	43
Water side pressure drop	kPa	/	/	8	14	15	17	22	30
Collectors diameter	ø	/	/			3/4"			
Weight	kg	/	/	2.5	2.5	2.5	5	5	6.5

The performance refers to the following conditions

- Values referring to the nominal air flow rate including recovery unit and filters G4
- Noise pressure level: values referring to 1.5 m from machine intake in free field

- Electronically adjustable regulator HRS_SC
- Selectable control panel

Winter nominal conditions:

external air temperature -5 °C BS, UR 80 %
environmental air temperature 20 °C BS, UR 50 %

Summer nominal conditions:

external air temperature 32 °C BS, UR 50 %
environmental air temperature 26 °C BS, UR 50 %

Features of the water post-heating/cooling coil (HRS_CS)		030	060	090	160	190	230	300	390
Geometry		25x22	25x22	25x22	25x22	25x22	25x22	25x22	25x22
Pipes for row	n°	13	13	16	22	25	26	26	26
Rows	n°	3	3	3	3	3	3	3	3
Louver pitch	mm	2,1	2,1	2,1	2,1	2,1	2,1	2,1	2,1
Heating capacity	kW	4,7	8,2	12	19,7	23,7	30,5	37	46,2
Air outlet temperature	°C	52,8	45,6	45	43,4	44,5	46,5	43,7	41,5
Water flow rate	m ³ /h	0,4	0,7	1,1	1,7	2,1	2,7	3,3	4,1
Water side pressure drop	kPa	3	7	6	20	34	30	43	36
Air side pressure drop	Pa	10	13	27	38	34	25	38	50
Cooling capacity	kW	2	3,5	5	8,8	11,1	14,7	17,4	20,9
Sensitive cooling capacity	kW	1,3	2,3	3,3	5,8	7,2	9,4	11,4	13,9
Air outlet temperature	°C	16,9	18,7	19	18,9	18,7	17,3	18,3	19,3
Water flow rate	m ³ /h	0,3	0,6	0,9	1,5	1,9	2,5	3	3,6
Water side pressure drop	kPa	3	7	6	21	39	36	49	39
Air side pressure drop	Pa	20	30	38	48	45	35	52	65

The performance refers to the following conditions

HEATING

air input temperature 8°C
water input temperature 70°C
water output temperature 60°C
Nominal air flow

COOLING

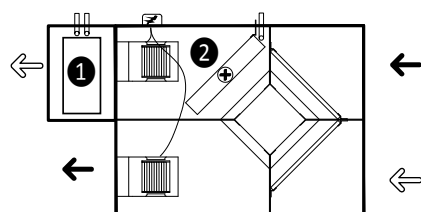
air input temperature 30°C
relative Humidity 50%
water input temperature 7°C
water output temperature 12°C
Nominal air flow

Internal layout (configurations available)

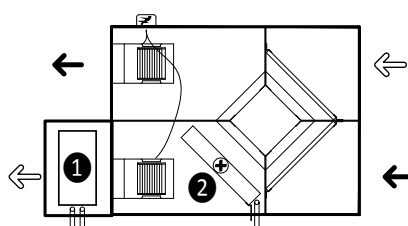
The guidelines are depicted relative to the car top view



ORIENTATION TYPE 01

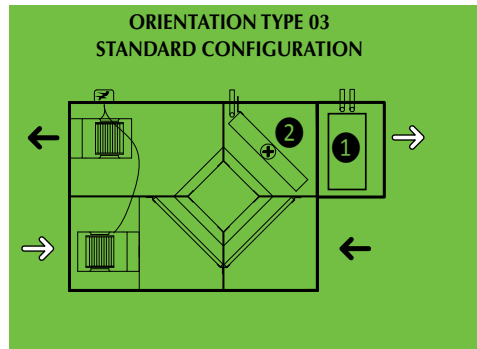


ORIENTATION TYPE 02

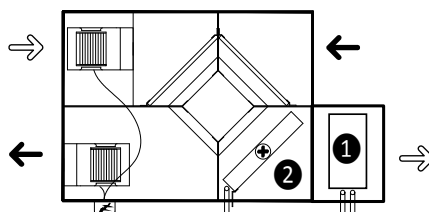


- ① HRS_CS Section of water cooling/heating (with stainless steel condensate drip tray). densa
- ② Post heating coil only HRS_W version

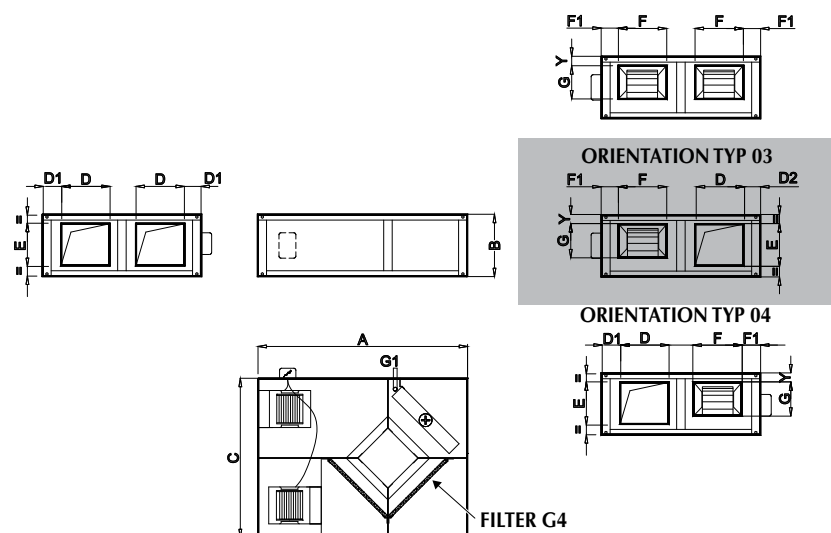
ORIENTATION TYPE 03
STANDARD CONFIGURATION



ORIENTATION TYPE 04



Dimensional data (mm)



	DIMENSIONS											WEIGHT	
	A (mm)	B (mm)	C (mm)	D (mm)	D1 (mm)	D2 (mm)	E (mm)	F (mm)	F1 (mm)	G (mm)	G1 ¹ (mm)	Y (mm)	(kg)
HRS030	990	290	750	240	79	79	180	100	94	100	/	95	41
HRS060	990	290	750	240	79	79	180	220	90	90	/	130	45
HRS090	1140	410	860	260	95	115	210	220	115	200	3/4"	50	80
HRS160	1300	500	860	290	77	77	310	225	109	255	3/4"	75	125
HRS190	1380	500	960	310	87	87	330	225	129	255	3/4"	75	138
HRS230	1650	600	1230	410	91	91	410	288	152	255	3/4"	162	160
HRS300	1650	600	1230	410	91	91	410	321	135	280	3/4"	125	174
HRS390	1750	600	1330	410	116	116	410	321	160	280	3/4"	125	190

ATTENTION

1. Hydraulic connections of the battery post-heating
THIS JUST IN VERSION HRS_W

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

URX CF

Heat recovery unit
with refrigerant circuit.
Air flow from 750 to 3,300 m³/h.

R410A



The URX_CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.

The URX_CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.

The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A. All this allows to have a complete unit, with the automatic operation in each season and capable of combining the required space ventilation requirements with efficient heat recovery.

The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

Characteristics

VERSIONS

- Standard horizontal configuration
- 5 sizes complete with temperature controller and ready for installation.

PANELS:

- Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m³).

HEAT RECOVERY:

- Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

FILTERS:

- Class G3, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

CENTRIFUGAL FANS:

- Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

ard.

REFRIGERANT CIRCUIT:

- Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

ELECTRICAL PANEL:

- The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, pressure switch in the supply air filter. Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

CONDENSATE DRAIN TRAY:

- Condensate drain tray in aluminium.

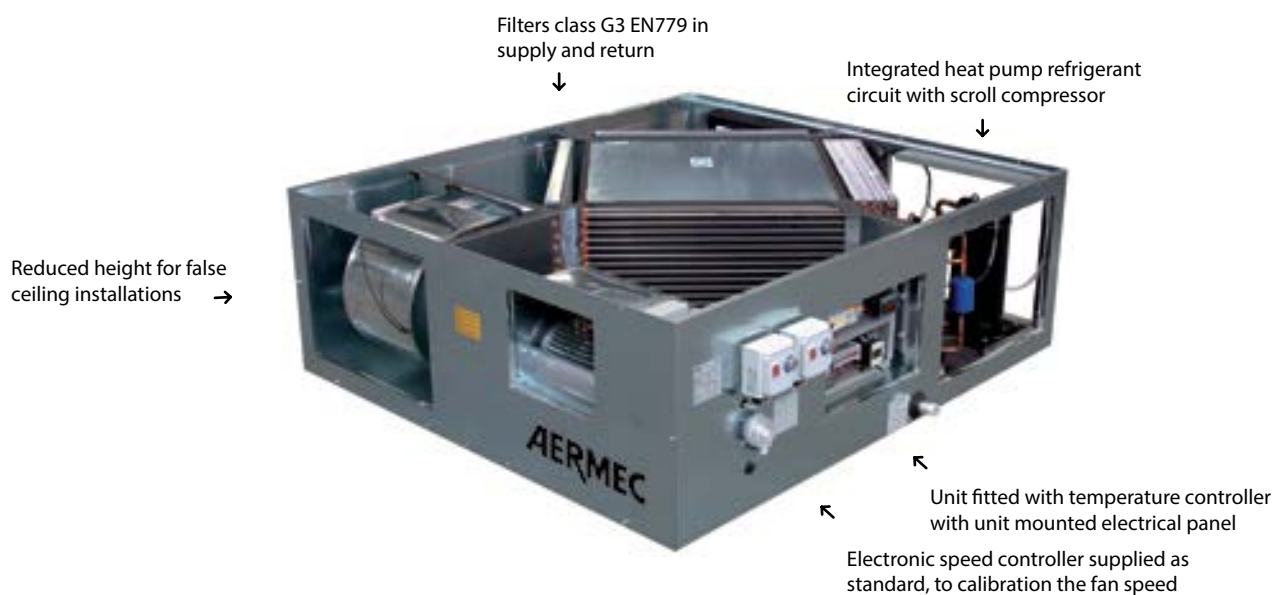
ACCESSIBILITY:

- From below for the heat recovery, the filters, the condensate drain tray and the fans.

Accessories

- **MBC** casing with 2 row hot water coil to install on the supply air. Includes the three way valve and on-off actuator.
- **FCE** free-cooling complete with controls to be added to the existing. Free-cooling operation only works in the summer mode, if the external air temperature is at least 10K lower than the internal air temperature and if the compressor safeties permit it.
- **FGC** circular flanges. Each accessory consists of a flange to be connected to each unit's rectangular connection.
- **G4F** filter efficiency G4
- **MBX** casing with single stage electrical heater with shrouded finned elements, with double safety thermostat of manual and automatic reset type, to install on the supply air.
- **SUF** silencer splitter module, in appropriate casing. The accessory consists of two modules: one for the supply and one for the return.
- **RS485** board RS485

URX_CF	07	10	15	21	33
RS485	✓	✓	✓	✓	✓
FCE	07	10	15	21	33
FGC	07	10	15	21	-
G4F	07	10	15	21	33
MBC	07	10	15	21	33
MBX	07	10	15	21	33
SUF	07	10	15	21	33



Technical data

Mod. URX_CF		07	10	15	21	33
Air flow nominal supply and extract	m ³ /h	750	1000	1500	2100	3300
Air flow minimum		640	850	1275	1785	2800
Available supply static pressure (max)	(1) Pa	278	233	239	166	289
Available extract static pressure (max)	(1) Pa	248	218	233	163	273
Heating capacity total (heat recovery + refrigerant circuit)	kW	8,8	10,8	15,8	22,8	33,3
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,1	7,3	10,2	15,0	23,0
Heating capacity available	kW	2,4	2,3	3,0	4,8	5,2
Cooling capacity available	kW	1,4	1,7	2,2	3,4	5,1
Efficiency heat recovery	%	46,2	51,2	53,2	53,6	53,6
Fans						
N°	n°	2	2	2	2	2
Total fans nominal power input	kW	0,75	0,84	1,02	1,24	2,5
Total fans maximum current input	A	4,8	4,8	7,2	7,2	13,2
Compressors						
Gas		R410A	R410A	R410A	R410A	R410A
Compressor power input winter condition	kW	1,3	1,3	1,8	2,5	3,0
Compressor power input summer condition	kW	1,8	2,1	2,3	3,5	4,4
Maximum compressor current input	A	8,2	12,5	7	11,1	19,7
Total power input winter condition	kW	2,0	2,0	3,3	4	5,5
Total power input summer condition	kW	2,6	2,8	3,8	5	6,9
Sound pressure level at 1 m	db(A)	53	55	57	59	62
Power supply		230V/1/50Hz	230V/1/50Hz	400V/3N/50Hz	400V/3N/50Hz	400V/3N/50Hz
MBC - Hot water coil (accessory)						
Number of rows	n°	2	2	2	2	2
Air side pressure drop (nominal air flow)	Pa	11	18	23	42	78
Heating capacity	(2) kW	5	6	8,7	10,3	16,8
Heating capacity	(3) kW	1,9	2,2	3,4	3,7	7,5
Water flow rate at nominal conditions	(2) l/h	442	523	763	902	1475
Water pressure drop (nominal conditions)	(2) kPa	16	22	9	12	31
Water flow rate at nominal conditions	(3) l/h	336	382	584	638	1306
Water pressure drop (nominal conditions)	(3) kPa	11	14	6	7	28
MBX - Electric heating coil (accessory)						
Power supply		400V/3/50Hz (separate power supply to the unit)				
Heating capacity	kW	3	4,5	6	9	12
Air side pressure drop (nominal air flow)	Pa	10	10	10	10	10
Number of stages	n°	1	1	1	1	1
Electric heater current input	A	4,6	6,8	9,1	13,7	18,2
CONNECTION DIAMETERS						
Drain pan condensate discharge diameter	in	1"	1"	1"	1"	1"
Water coil connection diameter	in	3/4"	3/4"	3/4"	3/4"	3/4"

Heating

fresh air flow equal to the exhaust air flow; external air temperature (in) -5°C 80% r.h.; room air temperature 20°C, 50% r.h.

Cooling

fresh air flow equal to the exhaust air flow; external air temperature (in) 34°C 50% r.h.; room air temperature 26°C, 50% r.h.

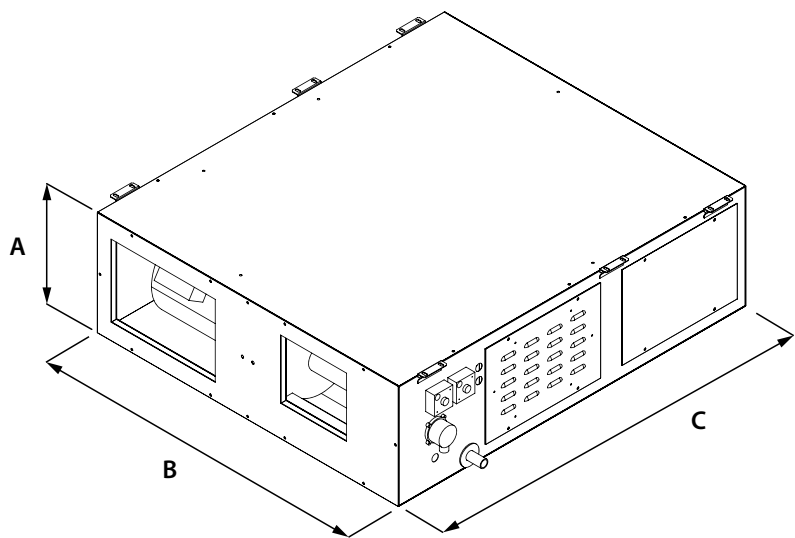
(1) Fan power supply 230V; nominal air flow rate without accessories

(2) Water temperature (in/out) 70/60°C; operating as in heating mode; with compressor operating

(3) Water temperature (in/out) 45/40°C; operating as in heating mode; with compressor operating

Sound pressure: at 1 m in free field with ducted vents

Dimensional data (mm)



URX_CF			07	10	15	21	33
Height	A	mm	450	450	550	550	600
Width	B	mm	1300	1300	1500	1500	1600
Depth	C	mm	1500	1500	1800	1800	1800
Weight		kg	205	218	272	298	328

URHE CF

High efficiency heat recovery unit with refrigerant circuit without an external unit.
Air flow from 1,000 to 3,300 m³/h.

R410A



The units from the URHE_CF series represent the high efficiency solution to satisfy the temperature and humidity comfort and ventilation requirements in air conditioning systems that serve public spaces and the commercial sector, such as offices, bars, restaurants, etc. The URHE_CF units are particularly efficient machines in that they use a high efficiency cross flow plate heat exchanger of high capacity combined with a heat pump refrigerant circuit operating with refrigerant R410A.

The use of a high capacity cross flow heat recovery unit permits a significant reduction in the operating time of the refrigerant circuit throughout the year, thereby reducing to the minimum the electrical energy consumption.

The small unit dimensions allow an easy installation even in false ceilings, allowing excellent accessibility for the maintenance of all the internal components.

The numerous accessories available on request, for example the high efficiency compact filters, the hot water coil or the silencers, complete the functions of the machine which is usually combined to an air conditioning system.

Characteristics

VERSIONS

- 4 sizes available in horizontal configuration for ground or ceiling void installation.
- Unit complete with temperature controller and ready for installation.

STRUCTURE AND PANELS:

- Structure in aluminium profiles with glass fibre reinforced nylon corner pieces.
- Sandwich panel 25 mm thick with galvanised steel for the internal surface, prepainted for the external surface with injected polyurethane insulation (density 42 kg/m³).

HEAT RECOVERY:

- Cross flow plate heat exchanger in aluminium optimised to ensure high outputs.

PLEATED FILTERS:

- Class G4, 80% gravimetric efficiency according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

CENTRIFUGAL FANS:

- High pressure forward curved impeller directly coupled to the motor. The air flow is main-

tained constant by the use of an electronic controller..

REFRIGERANT CIRCUIT:

- Heat pump with refrigerant R410A, complete with high efficiency low noise rotary or scroll compressors (depending on size), 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, thermostatic expansion valve, liquid sight glass, filter drier, high pressure pressostat, low pressure pressostat, safety valve, bypass valve (for the smaller sizes).

ELECTRICAL PANEL:

- The unit is provided with an electrical panel complete with power and control section (including the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, pressure switch in the supply air filter. Supplied loose is a remote mounted control terminal for automatic control of the unit.

ENVIRONMENTALLY FRIENDLY:

- Through the applied technology and the use of ozone friendly refrigerant R410A, the URHE_CF series is environmentally friendly. R410A is a refrigerant with high thermodynamic efficiency and this allows, together with the use of scroll compressors, to reduce CO₂ emissions.

Accessories

- **MBCH** hot water coil module
- **MBCX** electric heater module
- **FCT** high efficiency compact filters F7
- **BIT** base for floor mounting
- **BIM** base for floor mounting for additional modules
- **TPE** roof for external installation
- **TPM** roof for external installation of additional modules
- **FCH** free-cooling kit
- **RS485** board RS485
- **MSS** n° 1 silencer splitter module
- **TPMSS** roof for silencer splitter module
- **FGE** circular flanges

URHE_CF	10	15	25	33
MBCH	MBCH1	MBCH1	MBCH1	MBCH2
MBCX	MBCX1	MBCX2	MBCX3	MBCX4
FCT	FCT1	FCT1	FCT2	FCT3
BIT	BIT1	BIT1	BIT2	BIT3
BIM	BIM1	BIM1	BIM1	BIM1
TPE	TPE1	TPE1	TPE2	TPE3
TPM	TPM1	TPM1	TPM1	TPM2
FCH	FCH1	FCH1	FCH2	FCH2
RS485	RS485	RS485	RS485	RS485
MSS	MSS1	MSS1	MSS2	MSS2
TPMSS	TPMSS1	TPMSS1	TPMSS1	TPMSS2
FGE	FGE1	FGE1	FGE1	FGE1



Remote panel
(standard)



Technical data

Mod URHE_CF		10	15	25	33
Air flow nominal extract	(m ³ /h)	1000	1500	2500	3300
Air flow nominal supply	(m ³ /h)	1000	1500	2500	3300
Air flow minimum	(m ³ /h)	800	1000	2000	2500
Available supply static pressure (max)	(1) (Pa)	320	245	140	220
Available extract static pressure (max)	(1) (Pa)	320	245	140	220
Heating capacity total (recovery + refrigerant circuit)	(3) (kW)	7,5	14,2	24,8	33,1
Total cooling capacity (recovery + refrigerant circuit)	(2) (kW)	6,6	8,7	13,8	19,8
Heating capacity available	(4) (kW)	2,8	2,9	3,9	7
Cooling capacity available	(4) (kW)	1,8	3,1	3,3	5,4
Heating capacity recovered	(3) (kW)	3,6	10	15,3	19,6
Cooling capacity recovered	(2) (kW)	2,2	3,2	4,5	5,8
Heating capacity refrigerant circuit	(3) (kW)	3,9	4,2	9,5	13,5
Cooling capacity refrigerant circuit	(2) (kW)	4,4	5,5	9,3	14
Total power input winter condition	(3) (kW)	2,2	2,4	4,2	4,9
Total power input summer condition	(2) (kW)	2,6	2,9	5,1	6,5
Sound power level	(5) dB(A)	58	59	64	70
Power supply	phV/Hz	230V/1/50Hz	230V/1/50Hz	400V/3/50Hz	400V/3/50Hz
HEAT RECOVERY					
Efficiency in winter condition	(%)	82	80	73	71
Efficiency in summer condition	(%)	82	80	68	65
FANS					
Number of fans		2	2	2	2
Total fans nominal power input	(kW)	0,9	0,9	2,1	2,1
Total fans maximum current input	(A)	7,6	7,6	10,5	10,5
Protective rating	IP	55	55	55	55
FILTERS (standard)					
Classification to EN779		G4	G4	G4	G4
Gravimetric efficiency	(%)	90	90	90	90
Classification to EN779 (accessory filters)		F7	F7	F7	F7
Additional pressure drop for filters F7 (accessory)	(Pa)	35	59	58	63
REFRIGERANT CIRCUIT (COMPRESSOR)					
Refrigerant		R410A	R410A	R410A	R410A
Compressor power input winter condition	(3) (kW)	1,3	1,5	2,1	2,8
Compressor power input summer condition	(2) (kW)	1,7	2	2,8	4,4
Maximum compressor current input	(A)	10	11	7	10,3
CONDENSATE DRAIN TRAY					
Discharge diameter	(in)	1"	1"	1"	1"
MBCH - HOT WATER COIL (accessory)					
Number of rows	(n)	2	2	2	2
Air side pressure drop (nominal air flow)	(Pa)	7	18	37	37
Heating capacity	(6) (kW)	7,7	10,3	15,6	19,7
Heating capacity	(7) (kW)	2,6	4	6,5	7,6
Water flow rate at nominal conditions	(6) (l/h)	673	906	1363	1725
Water side pressure drop (nominal conditions)	(6) (kPa)	11	8	18	32
Water flow rate at nominal conditions	(7) (l/h)	446	700	1118	1311
Water side pressure drop (nominal conditions)	(7) (kPa)	3	6	14	22
Water coil connection diameter	(in)	3/4"	3/4"	3/4"	3/4"
MBCX - Electric heating coil (accessory)					
Power supply		400V/3/50Hz (separate power supply to the unit)			
Heating capacity	(kW)	5	7,5	12,5	16,5
Air side pressure drop (nominal air flow)	(Pa)	10	10	10	10
Number of stages	(n)	1	1	1	1
Electric heater current input	(A)	7,6	11,4	19	25,1

(1) Power supply fan: 230 V; nominal air flow; without accessories;

Cooling

(2) Operating conditions: return air 26°C 50% RH, external air 34°C 50%RH;

Heating

(3) Operating conditions: return air 20°C 50% RH, external air -5°C 80% RH.;

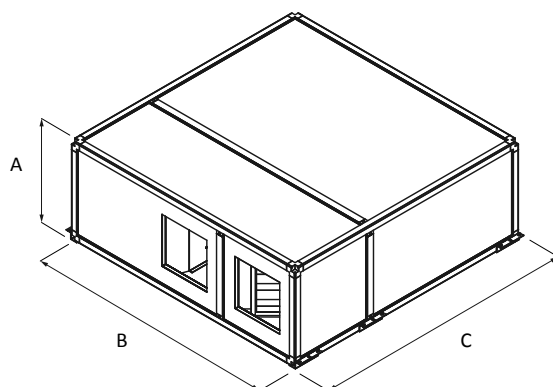
(4) This value offer an indication of the capacity produced by the unit net of the capacity used to bring the external air conditions to neutral values (specifically 20°C with 50% RH in

(5) At 1 m distance in free field with ducted connections.

(6) Inlet/outlet water temperature 70/60°C. Compressor operating. Operating conditions: return air 20°C 50% RH, external air -5°C 80% RH.

(7) Inlet/outlet water temperature 45/40°C. Compressor operating. Operating conditions: return air 20°C 50% RH, external air -5°C 80% RH.

Dimensional data (mm)



URHE_CF			10	15	25	33
Height	A	(mm)	574	574	574	574
Width	B	(mm)	1496	1496	1984	2309
Depht	C	(mm)	1607	1067	1638	1964
Weight		(kg)	300	310	373	410

ERS Heat recovery unit high efficiency with static recovery. Air flow from 1,000 to 5,000 m³/h.



The units of the ERS series are designed to satisfy the temperature and humidity comfort and ventilation requirements typical for public areas like bars, restaurants, offices, meeting halls.

The unit uses a high efficiency heat recovery unit made of aluminium plates designed to have the maximum heat exchange efficiency.

The supply air is thereby pre-heated or pre-cooled, as a function of the season, using the extract air. The intake air is filtered before passing through the heat recovery unit and is protected from dirt with a filter of the same type (G4) also on the extract side.

The inverters supplied with the fans permit continuous variable speed control.

The high reliability of the components used and the stringent acceptance tests which the unit is submitted to ensure high quality standards, accompanied by simplicity of installation and maintenance of these machines. The different versions available allow the selection of the most appropriate model for the installation requirements.

Characteristics

VERSIONS

- 5 sizes available for internal or external installation.
- 2 versions (basis B, with total bypass T)

PANELS:

- Framework and sandwich panels 25 mm thick in galvanised steel for the internal surface and prepainted externally with injected polyurethane insulation (density 42 kg/m³). Base in continuous profile galvanised steel. The removal of the panels to inspect the internal components is made as easy as possible. The unit is accessible on both sides.

HEAT RECOVERY:

- High efficiency counter flow plates in alu-

minium.

FILTERS:

- Supply and extract side pleated filters class G4 (according to EN779), retained in a metallic mesh of 50 mm thickness as standard.

SUPPLY AND EXTRACT FANS:

- Double inlet forward curved impeller with direct drive motor. Single phase 230V-50Hz single speed motor supplied with electronic controller for varying the frequency.

ELECTRONIC CONTROLLER:

- It is possible to supply the unit with four different types of controllers (factory fitted):
- CM: manual air flow control.

- CPO: automatic air flow control.

CONDENSATE DRAIN PAN:

- Condensate drain pan in aluminium.

Accessories

- **HBX** electric pre-heat coil.
- **HFT** high efficiency bag filter.
- **HBW** supplementary water coil.
- **HBC** supplementary direct expansion R407C coil.
- **HBA** supplementary direct expansion R410A coil.
- **TP** protective roof.
- **HPF** filters pressure switch.
- **V3V** 3-way valve.
- **FCR** intake circular flange.
- **GAR** intake anti-vibration connection.
- **HSR** intake damper.
- **CAR** intake hood.
- **BLM** supply grille.
- **FCH extract circular flange.**
- **GAR** intake anti-vibration connection supply air.
- **GAE** intake anti-vibration connection extract air.
- **GMR** discharge anti-vibration connection supply air.
- **GME** discharge anti-vibration connection extract air.
- **BLE** extract grille.
- **CM** manual air flow controller.
- **CPO** constant air flow controller.
- **CPS** constant pressure controller.

Mod. ERS		10	20		30		40		50	
	Ver.	B	B	T	B	T	B	T	B	T
GAR		10	10	10	20	20	30	30	40	40
GAE		10	10	10	20	20	30	30	40	40
CAR		10	10	10	20	30	30	30	40	40
CAE		10	10	10	20	20	30	30	40	40
FCR		10	20	10	30	20	40	30	40	40
FCH		10	20	10	30	20	40	30	40	40
GMR		10	20	10	30	20	40	30	40	40
GME		10	20	10	30	20	40	30	40	40
BLE		10	20	10	30	20	40	30	40	40
HBA		10	10	10	30	30	40	40	50	50
HBC		10	10	10	30	30	40	40	50	50
HBW		10	10	10	30	30	40	40	50	50
HBX_S		10	20	10	30	20	40	30	50	40
HBX_I		10	20	10	30	20	40	30	50	40
HFT_S		10	10	10	30	30	40	40	50	50
HFT_I		10	10	10	30	30	40	40	50	50
HSR		10	10	10	30	30	40	40	50	50
HSE		10	10	10	30	30	40	40	50	50
TP		10	10	10	30	30	40	40	50	50
HPF	(1)	•	•	•	•	•	•	•	•	•
V3VA1	(2)	•	•	•	•	•	-	-	-	-
V3VA2	(2)	-	-	-	-	-	•	•	•	•

ERS With regulation

Must choose between a CM/CPO/CPS

CM		10	10	10	30	10	40	30	50	40
CPO	(3)	10	10	10	30	10	40	30	50	40
CPS	(4)	10	10	10	30	10	40	30	50	40

Accessory of regulation

PRK	(5)	•	•	•	•	•	•	•	•	•
EV5485	(6)	•	•	•	•	•	•	•	•	•
EVSEH	(6)	•	•	•	•	•	•	•	•	•
EVSPFB	(6)	•	•	•	•	•	•	•	•	•
SRM	(7)	•	•	•	•	•	•	•	•	•
AFT	(8)	•	•	•	•	•	•	•	•	•
V3VR1		•	•	•	•	•	-	-	-	-
V3VR2		-	-	-	-	-	•	•	•	•
SPR	(9)	•	•	•	•	•	•	•	•	•
SCO ₂	(10)	•	•	•	•	•	•	•	•	•
SVOC	(10)	•	•	•	•	•	•	•	•	•
QEX	(11)	•	•	•	•	•	•	•	•	•

(1) Mounted on the machine and complete with pressure taps (without cables)

(2) Supplied as standard with 0-10V modulating actuator, 24V AC power supply, cable length 0.15 m . Provide protection against the cold for the hot water coil

(3) To probe pressure on the fan

(4) To probe pressure on the channel

(5) supplied , devoid of connecting cable between the same and the unit , the base unit, if provided for adjustment , is already supplied to the controller board machine with LCD display

(6) The choice of one excludes the other (for other protocols contact the venue)

(7) n°1 for damper actuator

(8) Required if the battery is hot or promiscuous

(9) Accessory only available for control CPS and CPO . Allows adjustment , independently of the flow , the flow rate (CPO) or prevalence (CPS) in the second half.

Without this sensor, the unit will adjust the flow rate (CPO) or prevalence (CPS) in relation to the delivery

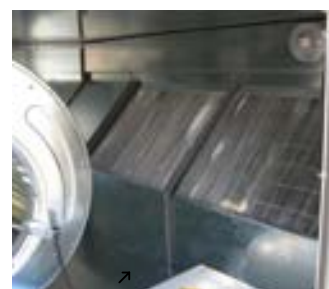
(10) To be selected from SCO₂ and SVOC

(11) Required in case of batteries preheating HBX

High pressure fan
fitted as standard
with inverter ↘



The T versions has bypass for
free-cooling ↙



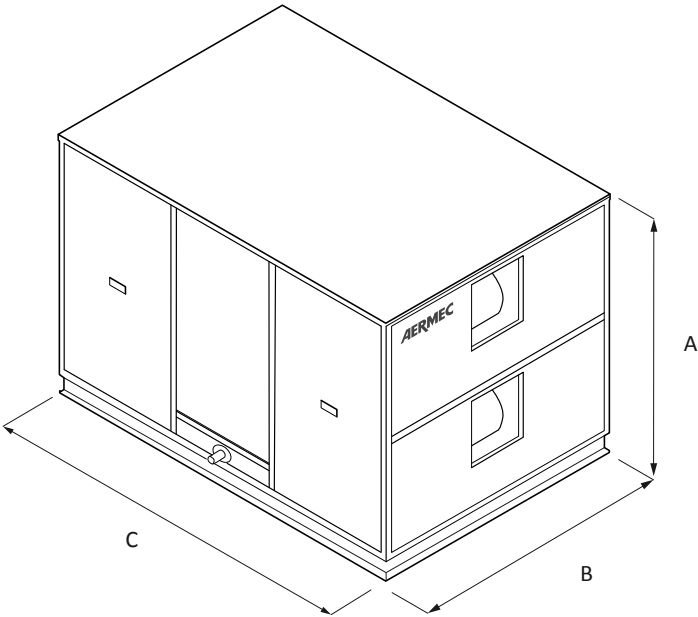
High efficiency counter flow
heat exchanger

Technical data

ERS			10	20		30		40		50			
VERSION			B	B	T	B	T	B	T	B	T		
Air flow nominal supply and extract			(m3/h)	1.000	2.000	1.000	3.000	2.000	4.000	3.000	5.000	4.000	
Maximum available external static pressure supply and extract			(Pa)	340	340	410	280	360	460	280	350	410	
Heating capacity recovered			1	(kW)	8,8	17,7	9	26,5	17,8	35,1	26,5	44,1	35,5
Recovery winter efficiency			1	(%)	82,4	82,4	83,9	82,4	83,2	82	82,4	82,4	82,8
Cooling capacity recovered			2	(kW)	2,1	4,2	2,1	6,3	4,2	8,3	6,3	10,4	8,4
Recovery summer efficiency			2	(%)	69,2	69,2	70,4	69,2	69,9	68,8	69,2	69,2	69,5
Total number of fans			(n°)	2	4	2	2	4	4	2	4	4	
Power input per fan			(kW)	1	2	1	2	2	4	2	4	4	
Maximum current input per fan			(A)	4,4	8,8	4,4	8,4	8,8	16,8	8,4	16,8	16,8	
Power supply			V/h/Hz	230V/1/50Hz									
Sound pressure level			dB(A)	24,8	26,9	23,3	29,3	25,3	31,6	32	36,5	33,3	
HBW Water coil				10	10	10	30	30	40	40	50	50	
Total cooling capacity			3	(kW)	10,7	17,6	10,7	28,4	21,6	37,2	30,6	48,9	42,2
Heating capacity			4	(kW)	12,9	21,5	12,7	33,4	24,6	44	35,5	56,7	47,9
Heating capacity			5	(kW)	6,8	11,4	6,7	17,7	13	23,4	18,9	30,1	25,4
HBC Direct expansion coil R407C				10	10	10	30	30	40	40	50	50	
Total cooling capacity			6	(kW)	11,1	15,9	11,1	24,4	20,1	31,8	27,6	41,5	37,5
Heating capacity			7	(kW)	8,4	13,6	8,3	20,8	15,6	27,4	22,5	35,1	30
HBA Direct expansion coil R410A				10	10	10	30	30	40	40	50	50	
Total cooling capacity			8	(kW)	12	18,1	12,1	27,7	22,2	36,2	30,9	47	41,8
Heating capacity			9	(kW)	8,5	13,7	8,3	20,9	15,7	27,6	22,6	35,3	30,2

- Equal supply and extract air flows; inlet temperature external air -10°C, 90% RH; ambient air temperature 22°C, 50% RH.
- Performance refers to: equal supply and extract air flows; inlet temperature external air 35°C, 50% RH; ambient air temperature 26°C, 50% RH. Sound pressure at 10m in free field, with directivity factor 2.
- Coil water inlet temperature 7°C; inlet-outlet temperature differential 5K. Inlet temperature external air 35°C, 50% RH; ambient air temperature 26°C, 50% RH.
- Coil water inlet temperature 70°C; inlet-outlet coil differential temperature 10K. Inlet temperature external air -10°C, 90% RH; ambient air temperature 22°C, 50% RH.
- Coil water inlet temperature 45°C; inlet-outlet temperature differential 5K. Inlet temperature external air -10°C, 90% RH; ambient air temperature 22°C, 50% RH.
- Evaporating temperature 5°C; condensing temperature 50°C. Inlet temperature external air 35°C, 50% RH; ambient air temperature 26°C, 50% RH.
- Evaporating temperature 0°C; condensing temperature 50°C. Inlet temperature external air -10°C, 90% RH; ambient air temperature 22°C, 50% RH.
- Evaporating temperature 5°C; condensing temperature 50°C. Inlet temperature external air 35°C, 50% RH; ambient air temperature 26°C, 50% RH.
- Evaporating temperature 0°C; condensing temperature 50°C. Inlet temperature external air -10°C, 90% RH; ambient air temperature 22°C, 50% RH.

Dimensional data (mm)



ERS			10	20	30	40	50
Height	A	(mm)	1.900	1.900	1.900	1.900	1.900
Width	B	(mm)	900	900	1.300	1.600	2.100
Depth	C	(mm)	1.300	1.300	1.300	1.300	1.300
Weight		(kg)	290	315	373	453	531

ERSR Heat recovery unit with high efficiency rotary heat exchanger. Air flow from 1,000 to 30,000 m³/h.



The units of the **ERSR series** are designed to satisfy the temperature and humidity comfort and ventilation requirements typical for public areas.

The units are characterised by a high efficiency low pressure drop rotary heat exchanger (with the option of having a hygroscopic treatment on its surfaces). The heat recovered by this exchanger ensures the contribution from the air conditioning system is kept to a minimum: in this way a highly cost effective operation is achieved.

Significant economic savings are ensured also by the use of plug fans with electronically controlled motors (up to size 17) or with high efficiency inverter controlled motors.

The unit is "plug & play", being supplied with an electronic controller and unit mounted electrical power panel. The special control software is capable of maximising the use of the unit in energetically favourable conditions.

Characteristics

VERSIONS

- 7 sizes available for internal or external installation.

2 versions:

- with rotary heat exchanger (T)
- with hygroscopic rotary heat exchanger (H)

STRUCTURE:

- Support structure and sandwich panel with 50 mm thickness in galvanised sheet steel for the internal surface and prepainted for the external surface with mineral wool insulation (density 50 kg/m³).
On demand other types of panels can be provided.
Base in continuous profile galvanised steel.

The sizes 07 and 09 are mono-bloc whilst the other sizes are divided into sections. The unit is accessible from both sides.

HEAT RECOVERY:

- Rotary (with optional hygroscopic material) with high efficiency and low pressure drop.

FILTERS:

- Supply and extract air soft bag filters of class F7 (according to EN779) are supplied as standard. All filters are side withdrawal and are supplied as standard with a differential pressure switch to indicate a dirty filter.

SUPPLY AND EXTRACT FANS:

- Plug fan with backward curved impeller with direct drive motor, electronically controlled for sizes 07-17 and with inverter for sizes 21-24.

ELECTRONIC CONTROLLER:

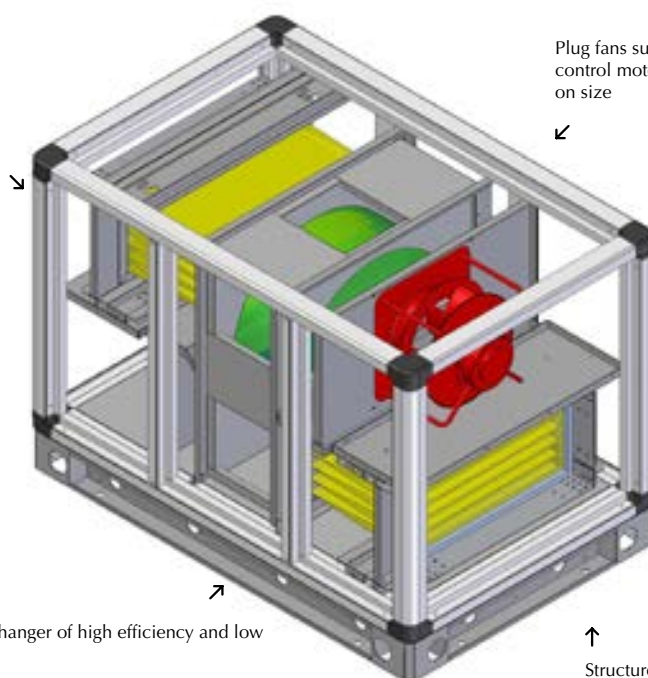
- The unit is supplied with an electrical power panel unit mounted and with a controller specifically designed to reduce energy consumption.
Serial port provided as standard for communicating on RS485 with MODBUS Master/Slave protocol.

Accessories

- **RSR** recirculation section/damper.
- **RBF** chilled water coil module with 3 way valve.
- **RBC** hot water coil module with 3 way valve.
- **RBP** chilled water coil and hot water re-heat coil module with 3 way valves.
- **RE** electric coil module.
- **VRC** condensate drain pan.
- **MSS** silencer splitter module.
- **TDP** protective roof.

ERSR	07	09	12	15	17	21	24
ACCESSORIES OF UNIT							
CAP	CAP07	CAP09	CAP12	CAP15	CAP17	CAP21	CAP24
BDL	BDL07	BDL09	BDL12	BDL15	BDL17	BDL21	BDL24
FRR	FRR09	FRR09	FRR12	FRR15	FRR17	FRR21	FRR24
GAR	GAR07	GAR09	GAR12	GAR15	GAR17	GAR21	GAR24
HSR	HSR07	HSR09	HSR12	HSR15	HSR17	HSR21	HSR24
RSR	-	-	HSR12	RSR15	RSR17	RSR21	RSR24
HG4	HG407	HG409	HG412	HG415	HG417	HG421	HG424
TDP	TDP07	TDP09	TDP12	TDP15	TDP17	TDP21	TDP24
VRC	VRC07	VRC09	VRC12	VRC15	VRC17	VRC21	VRC24
VVR	VVR07	VVR09	VVR12	VVR15	VVR17	VVR21	VVR24
QP	•	•	•	•	•	•	•
KDP	•	•	•	•	•	•	•
ACCESSORY MODULES							
RBC	RBC07	RBC09	RBC12	RBC15	RBC17	RBC21	RBC24
RBF	RBF07	RBF09	RBF12	RBF15	RBF17	RBF21	RBF24
RBE	RBE07	RBE09	RBE12	RBE15	RBE17	RBE21	RBE24
RBP	RBP07	RBP09	RBP12	RBP15	RBP17	RBP21	RBP24
MSS	MSS07	MSS09	MSS12	MSS15	MSS17	MSS21	MSS24
ACCESSORY MODULES WITH ROOF							
RBCT	RBC07T	RBC09T	RBC12T	RBC15T	RBC17T	RBC21T	RBC24T
RBFT	RBF07T	RBF09T	RBF12T	RBF15T	RBF17T	RBF21T	RBF24T
RBET	RBE07T	RBE09T	RBE12T	RBE15T	RBE17T	RBE21T	RBE24T
RBPT	RBP07T	RBP09T	RBP12T	RBP15T	RBP17T	RBP21T	RBP24T
MSST	MSS07T	MSS09T	MSS12T	MSS15T	MSS17T	MSS21T	MSS24T

Bag filters class F7 standard



Plug fans supplied with electronic control motor or inverter, depending on size

Rotary heat exchanger of high efficiency and low pressure drop

Structure made of an aluminium frame and sandwich panel 50 mm thick

Technical data

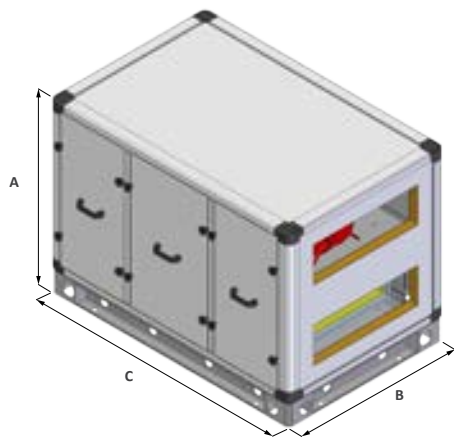
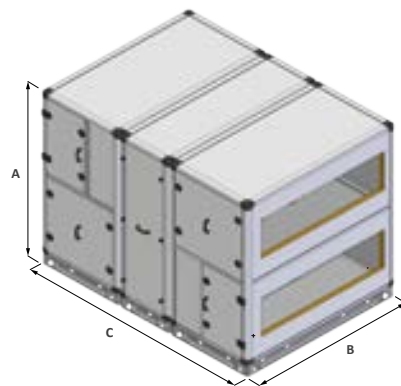
ERSR			07	09	12	15	17	21	24
VERSION			T	T	T	T	T	T	T
Air flow nominal supply and extract		(m ³ /h)	1.100	1.950	3.700	5.950	7.800	12.200	16.100
Maximum available static pressure supply and extract		(Pa)	420	660	1.100	1.120	1.040	1.440	1.530
Total nominal power input	1	(kW)	0,33	0,48	1,06	1,69	2,13	3,49	3,85
Maximum air flow supply and extract		(m ³ /h)	2.000	4.370	5.880	10.650	14.800	24.750	31.350
Maximum total power input		(kW)	0,82	2,04	6,09	8,78	10,2	22,4	30,4
Total heating capacity recovered	2	(kW)	10,7	19	36	57,9	75,9	118	156
Sensible heating capacity recovered	2	(kW)	7,4	13,1	24,9	40,1	52,5	82,1	108
Recovery winter efficiency	2	(%)	80	80	80	80	80	80	80
Total cooling capacity recovered	3	(kW)	2,8	4,9	9,3	14,9	19,5	30,5	40,3
Sensible cooling capacity recovered	3	(kW)	2,7	4,7	9	14,4	18,9	29,6	39
Recovery summer efficiency	3	(%)	80	80	80	80	80	80	80
Total number of fans		(n°)	2	2	2	2	2	4	4
Sound power level		dB(A)	65,6	67	75,3	76,7	78	78	79
Unit power supply		V/h/Hz	400V/3N/50Hz						
RBC Hot water coil									
Heating capacity	4	(kW)	9,5	16,9	27,4	46,7	60,1	95,8	130,4
Water flow rate	4	(m ³ /h)	0,8	1,4	2,3	4	5,2	8,4	11,3
Water side pressure drop	4	(kPa)	9	8	8	7	11	16	20
RBF Chilled water coil									
Total cooling capacity	5	(kW)	10,5	19,5	34,7	59,8	80	127,4	171,3
Sensible cooling capacity	5	(kW)	4,1	7,6	13,9	23,9	32	51	68,5
Water flow rate	5	(m ³ /h)	1,6	2,9	6	10,3	13,7	21,9	29,5
Water side pressure drop	5	(kPa)	15	8	7	23	33	34	3,2

For the performance of the version H contact the factory

- At nominal air flow rate conditions and available static pressure of 100 Pa.
- Heating
Performance refers to: equal supply and extract air flow; external air inlet temperature -5°C, 80% RH; ambient air temperature 20°C, 50% RH.
- Cooling
Performance refers to: equal supply and extract air flow; external air inlet temperature 35°C, 50% RH; ambient air temperature 26°C, 50% RH.
- Coil water inlet temperature 70°C; inlet-outlet coil differential temperature 10K. Coil inlet air temperature 15°C; water pressure drops do not include the 3 way valve (standard).
- Coil water inlet temperature 7°C; inlet-outlet temperature differential 5K. Coil inlet air temperature 28°C, 75% RH; water pressure drops do not include the 3 way valve (standard).

Sound power level of the supply fan not ducted with external static pressure equal to 0 Pa.

Dimensional data (mm)



ERSR			07	09	12	15	17	21	24
Height (including base H=120mm)	A	mm	1,375	1,535	2,045	2,365	2,365	3,005	3,005
Width	B	mm	895	1,005	1,375	1,695	1,855	2,335	2,665
Length	C	mm	965	1,285	1,445	1,765	2,085	2,405	2,725
Weight		kg	240	340	570	820	1,010	1,610	1,980

AERMEC



03. 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 020/202

chillers, heat pumps and condensing units
Air/Water for outdoor installation
Axial fan and scroll compressor:
Cooling capacity 5,65÷43,70kW
Heating capacity 6,27÷44,64kW

R410A



Aermec participates in the EUROVENT Certification Programme: LCP
The products concerned appear in the EUROVENT site
www.eurovent-certification.com.

Variable Multi Flow



- **STANDARD VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

Characteristics

Cooling only, heat pump, and condensing unit models

Versions

ANL_°: Chillers without hydronic kit

ANL_H: Heat pumps without hydronic kit

ANL_C: Condensing unit

Versioni con kit idronico integrato

ANL_P/HP: with standard pump

ANL_N/HN: with high pump

ANL_A/HA: with buffer tank and standard pump

ANL_Q/HQ: with buffer tank and high pump

• Operational limits (1)

Cooling mode

- max. external air temperature 46°C

Heating mode

- max. Leaving water temperature 50°C
- High efficiency scroll compressors with low power input
- flow switch/ pressure switch as standard supply
- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Inverter axial flow fan units for heat pumps from size 030H to 090H)
- The hydronic kit includes:
 - Expansion tank
 - Safety valve

- Pressure gauge
- Electronic controller (Modu_control)
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **MODU-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.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
For complete control the following accessories are

available:

SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.

VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
 - **DCPX:** an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C;
- Standard for the version with desuperheater**

- **BDX:** Condensate drip tray with integrated electric heater controlled by the external air temperature sensor.
- **VT:** Anti-vibration mounts.

Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%
- **KR:** Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA.
- **KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **RA:** Anti-freeze electric heater for the buffer tank.

Compatibility with the VMF system

For further system information please refer to the specific documentation.

		Accessory compatibility										
ANL	vers	020	025	030	040	050	070	080	090	102	152	202
MODU-485A	All	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•	•	•
MULTICONTROL	All	•	•	•	•	•	•	•	•	•	•	•
SPLW	All	•	•	•	•	•	•	•	•	•	•	•
SDHW	All	•	•	•	•	•	•	•	•	•	•	•
VMF-CRP	All	•	•	•	•	•	•	•	•	•	•	•
PR3	All	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1) (°) - C	50	50	50	50	50	50	50	50	52	52	52
	(2) H	51	51							53	53	53
BDX	(°) / P	5	5	5	5	5	5	5	5	-	-	-
	A	5	5	5	5	6	6	6	6	-	-	-
VT	(°) - H - HP - C	9	9	9	9	9	9	9	9	15	15	15
	A - HA	9	9	9	9	15	15	15	15	15	15	15
Accessori montati in fabbrica												
DRE	(3)	-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
KR	°/H°P/HP	2	2	2	2	2	2	2	2	2	2	2
	°A/HA	-	-	-	-	2	2	2	2	100	100	100
KRB3		-	-	-	-	-	-	-	-	•	•	•
RA		•	•	•	•	•	•	•	•	-	-	-
RA100	A/HA	-	-	-	-	-	-	-	-	•	•	•

(1) Standard for the unit with desuperheater

(2) The heat pump ANL030H±090H fitted as standard fans Inverter

(3) Only for power supply 400V/3N/50Hz

Unit Configurator

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

Field	Code
1,2,3	ANL
4,5,6	Size 020-025-030-040-050-070-080-090-102-152-202
7	Model <ul style="list-style-type: none"> Only cooling
	H Heat pump
8	Version <ul style="list-style-type: none"> Standard P With pumps N With high pump (for size from 102 to 202) A With buffer tank and standard pump Q With buffer tank and high pump (for size from 050 to 202)
9	Heat recovery <ul style="list-style-type: none"> Without recovery D With desuperheater (4)
10	Coil fin <ul style="list-style-type: none"> Aluminium R Copper (for size from 102 to 202 only in heat pump model "H") S Tinned copper (for size from 102 to 202 only in heat pump model "H") V Treated aluminium (epoxy coated) <ul style="list-style-type: none"> cataphoresis treatment for sizes 102 - 152 - 202 in cooling only models epoxy paint for sizes 102 - 152 - 202 in heat pump models
11	Field of use <ul style="list-style-type: none"> Standard (leaving water temperature down to 4°C) Z Low leaving liquid (from 4°C down to up to 0°C) (5) Y Low leaving liquid (from 0°C down to -6°C) (5)
12	Evaporator <ul style="list-style-type: none"> Standard C Condensing unit
13	Power supply <ul style="list-style-type: none"> M 230V/1/50Hz (for size from 020 to 040) 400V/3N/50Hz

(4) The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 102 to 202 are available in all versions. Desuperheater is incompatible with the low temperature options, with the condensing unit version, and for dimensional reasons even with the option Q.

(5) Option only in cooling model.

Technical Data

Model				020°	025°	030°	040°	050°	070°	080°	090°	102°	152°	202°
Cooling capacity	(1)	°	kW	5,65	6,15	7,44	9,53	13,31	16,39	20,35	22,14	26,34	32,69	42,60
		P A	kW	5,71	6,21	7,52	9,64	13,47	16,59	20,60	22,40	26,93	33,48	43,49
		N Q	kW	-	-	-	-	13,73	16,9	20,9	22,72	27,07	33,7	43,7
Total power input		°	kW	1,89	2,05	2,52	3,32	4,12	4,98	6,48	6,79	8,06	10,31	13,53
		P A	kW	1,92	2,07	2,52	3,30	4,10	4,92	6,39	6,69	8,07	10,53	13,79
		N Q	kW	-	-	-	-	4,18	5,01	6,48	6,79	8,46	10,58	13,83
EER		°	W/W	3,00	3,00	2,96	2,87	3,23	3,29	3,14	3,26	3,27	3,17	3,15
		P A	W/W	2,98	3,00	2,98	2,92	3,28	3,37	3,22	3,35	3,34	3,18	3,15
		N Q	W/W	-	-	-	-	3,28	3,37	3,22	3,35	3,20	3,18	3,16
ESEER		°		3,43	3,43	3,4	3,33	3,74	3,82	3,65	3,71	3,85	3,99	3,94
		P A		3,5	3,54	3,55	3,48	3,85	3,97	3,8	3,95	3,96	3,94	3,82
		N Q		-	-	-	-	3,66	3,77	3,61	3,75	3,61	3,74	3,62
Water flow rate		TUTTE	l/h	980	1066	1290	1651	2305	2838	3526	3836	4575	5676	7396
Total pressure drops		°	kPa	21	21	22	24	25	26	34	35	58	61	68
Available head		P A	kPa	60	60	59	55	82	81	69	66	84	115	90
		N Q	kPa	-	-	-	-	160	159	144	140	140	185	158

Cooling: (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

(1) 230V/1/50Hz = 400V/3N/50Hz

Model				020H	025H	030H	040H	050H	070H	080H	090H	102H	152H	202H
Cooling capacity	(1)	°	kW	5,65	6,15	7,44	9,53	13,31	16,39	20,35	22,14	26,34	32,69	42,60
		P/A	kW	5,71	6,21	7,52	9,64	13,47	16,59	20,60	22,40	26,93	33,48	43,49
		N/Q	kW	-	-	-	-	13,73	16,9	20,9	22,72	27,07	33,7	43,7
Total power input		°	kW	1,89	2,05	2,52	3,32	4,12	4,98	6,48	6,79	8,06	10,31	13,53
		P/A	kW	1,92	2,07	2,52	3,30	4,10	4,92	6,39	6,69	8,07	10,53	13,79
		N/Q	kW	-	-	-	-	4,18	5,01	6,48	6,79	8,46	10,58	13,83
EER		°	W/W	3,00	3,00	2,96	2,87	3,23	3,29	3,14	3,26	3,27	3,17	3,15
		P/A	W/W	2,98	3,00	2,98	2,92	3,28	3,37	3,22	3,35	3,34	3,18	3,15
		N/Q	W/W	-	-	-	-	3,28	3,37	3,22	3,35	3,20	3,18	3,16
ESEER		°		3,43	3,43	3,4	3,33	3,74	3,82	3,65	3,71	3,85	3,99	3,94
		P/A		3,5	3,54	3,55	3,48	3,85	3,97	3,8	3,95	3,96	3,94	3,82
		N/Q		-	-	-	-	3,66	3,77	3,61	3,75	3,61	3,74	3,62
Water flow rate			l/h	980	1066	1290	1651	2305	2838	3526	3836	4575	5676	7396
Total pressure drops		°	kPa	21	21	22	24	25	26	34	35	58	61	68
Available head		P/A	kPa	60	60	59	55	82	81	69	66	84	115	90
		N/Q	kPa	-	-	-	-	160	159	144	140	140	185	158
Heating capacity	(1)	°	kW	6,27	7,08	8,49	10,70	14,12	17,44	22,40	24,46	29,31	35,35	45,78
		P/A	kW	6,19	6,98	8,37	10,56	13,93	17,20	22,11	24,10	28,69	34,55	44,90
		N/Q	kW	-	-	-	-	13,67	16,92	21,79	23,77	28,56	34,34	44,64
Total power input		°	kW	1,98	2,20	2,71	3,28	4,42	5,04	6,50	7,11	8,87	10,45	13,78
		P/A	kW	1,98	2,19	2,68	3,23	4,37	4,95	6,36	6,91	8,87	10,67	14,06
		N/Q	kW	-	-	-	-	4,45	5,04	6,46	7,02	9,30	10,72	14,08
COP		°	W/W	3,17	3,22	3,13	3,26	3,20	3,46	3,45	3,44	3,30	3,38	3,32
		P/A	W/W	3,12	3,19	3,12	3,27	3,19	3,48	3,48	3,49	3,23	3,24	3,19
		N/Q	W/W	-	-	-	-	3,07	3,36	3,37	3,39	3,07	3,20	3,17
Water flow rate			l/h	1066	1204	1445	1823	2408	2976	3818	4162	4988	6020	7795
Total pressure drops		°	kPa	33	37	37	34	34	36	48	65	69	68	78
Available head		P/A	kPa	58	56	55	51	82	79	65	61	70	100	68
		N/Q	kPa	-	-	-	-	159	157	137	132	117	174	141

Cooling: (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating: (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

(1) 230V/1/50Hz = 400V/3N/50Hz

			020C	025C	030C	040C	050C	070C	080C	090C	102C	152C	202C
Cooling capacity	(1)	kW	5,7	6,0	7,5	9,6	13,7	16,8	20,8	22,5	26,9	33,4	43,7
Total power input	°	kW	1,85	2,05	2,5	3,3	4,1	5,0	6,5	6,8	8,6	10,2	14,10
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													
Gas line		Ø	15,88	15,88	15,88	15,88	22	22	22	28	28	28	28
Liquid line		Ø	9,52	9,52	12,7	12,7	15,88	15,88	15,88	15,88	15,88	15,88	15,88

Cooling:

Evaporating temperature 5°C; External air temperature 35°C

(1) 230V/1/50Hz = 400V/3N/50Hz

Technical Data

DATA FOR ALL VERSIONS				020	025	030	040	050	070	080	090	102	152	202
Electrical data														
Total input current	(2)	230V/1	A	6,43	7,3	8,17	10,78	-	-	-	-	-	-	-
	(2)	400V/3N	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	15,57	18,81	24,67
Total input current heating mode	(2)	230V/1	A	6,61	7,65	9,39	11,83	-	-	-	-	-	-	-
	(2)	400V/3N	A	3,80	4,40	5,40	6,80	9,50	10,30	12,90	13,80	17,00	19,00	25,00
Maximum current (FLA)	(2)	230V/1	A	16,5	16,5	19,7	23,7	-	-	-	-	-	-	-
	(2)	400V/3N	A	6,0	6,0	6,7	8,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
Starting current (LRA)	(2)	230V/1	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
	(2)	400V/3N	A	26,5	32,5	35,7	48,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
Compressors														
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	1	1	1	1	1	1	1	1	1	2	2	2
Circuits		n°	1	1	1	1	1	1	1	1	1	1	1	1
Capacity control		%	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100	0-50-100
Refrigerant		type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
System side exchanger														
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼	1"¼
Fans standard														
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
		n°	1	1	1	1	2	2	2	2	2	2	2	2
Air flow rate cooling mode		m³/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500	
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	
Power supply		V/ph/Hz	230V/1	230V/1	230V/1	230V/1	-	-	-	-	-	-	-	-
		V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Sound power

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

Sound pressure

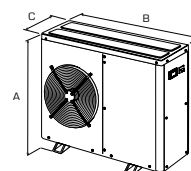
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

(2) Unit in standard configuration/execution without hydroni kit

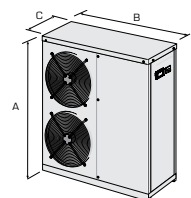
Nota: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

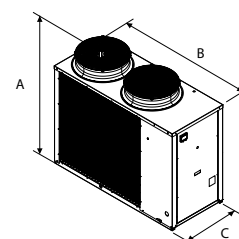
				020	025	030	040	050	070	080	090	102	152	202
Height (A)	° P C	mm		868	868	1000	1000	1252	1252	1252	1252			
	A	mm		868	868	1015	1015	1281	1281	1281	1281	1450	1450	1450
	Q	mm		-	-	-	-	1281	1281	1281	1281			
Width (B)	° P C	mm		900	900	900	900	1124	1124	1124	1124			
	A	mm		1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	Q	mm		-	-	-	-	1165	1165	1165	1165			
Depth (C)	° 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	750	750	750
	Q	mm		-	-	-	-	550	550	550	550			
Chillers (only cooling)														
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	338	364	400
	Q	kg		-	-	-	-	151	151	187	187			
	C	kg		70	70	78	78	110	110	141	141	270	293	329
Heat pumps														
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



020 ÷ 040 * without feet / with feet



050 ÷ 090



102 - 152 - 202

ANL 290/650 cooling only

R410A



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

Variable Multi Flow®

VMF

Chillers
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 55÷133kW



• STANDARD VERSION • VERSION WITH INTEGRATED HYDRONIC MODULE

Features

Cooling versions and condensing unit
Versioni

ANL° standard versions (ANL580/650).

ANL_L Low noise versions (ANL290/650).

ANL_C Condensing versions (ANL580/650)

ANL_CL Condensing low noise versions (ANL290/650)

- High efficiency scroll compressors.
- Flow switch as standard supply.

- Water filter.
- Low and high pressure transducers as standard supply.
- High efficiency exchangers.
- Axial fans with low sound level.
- Possibility of integrated hydronic module user side:
 - Buffer tank and pumps, or pumps only
 - Expansion tank

- Safety valve
- Pressure gauge
- Drain valve
- Electronic controller (Modu_control).
- Microprocessor control system
- Metallic protective cabinet with anti-corrosion polyester paint.

Accessories

- **MODU-485A:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET:** accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.
Mandatory accessory:
- **AER485 or MODU-485A**
- **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.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
For complete control the following accessories are available:
- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures from less than 10 °C down to -10 °C.
- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **GP:** Protects the external coil from blows.

- **VT:** Anti-vibration mounts.

Accessories can only be applied in the factory

- **RIF:** Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.
- **DRE:** Current soft starter device (about 26% for two-circuit-units).
Available only with power supply 400V/3N.

COMPATIBILITY WITH THE VMF SYSTEM.

For further system information please refer to the specific documentation.

Accessory compatibility

ANL		290	300	340	400	580	620	650
MODU-485A	Alls	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•
MULTICONTROL	Alls	•	•	•	•	•	•	•
SPLW	Alls	•	•	•	•	•	•	•
AERSET	Alls	•	•	•	•	•	•	•
PR3	Alls	•	•	•	•	•	•	•
DCPX (version with standard fan "00" Standard)	°	-	-	-	-	83	83	83
	L	58	58	58	58	standard	standard	standard
DCPX (version with high static pressure fan "M")	°	62	62	62	63	83	83	83
	L	62	62	62	63	83	83	83
GP	Alls	GP3	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)
VT (00)	Alls	17	17	17	17	11	11	11
VT (P1-P2-P3-P4)	Alls	13	13	13	17	11	11	11
VT (01-02-03-04)	Alls	13	13	13	13	11	11	11
Accessories can only be applied in the factory								
RIF	Alls	32	32	42	42	50	72	51
DRE	(2) Alls	10(x2)	10(x2)	15(x2)	25(x2)	30(x2)	30(x2)	30(x2)

(1) Standard for chillers with desuperheater

(1) standard for version "L" only for size 580÷650

(2) Only for power supply 400V/3N/50Hz

(x2) indicates the quantity to order

Unit Configurator

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

Field	Description	
1,2,3	ANL	
4,5,6	Size	290-300-340-400-580-620-650
7	Field of use	<ul style="list-style-type: none"> ° Standard with produced water down to +4 °C
Y	Low leaving water up to -6 °C	
X	Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us)	
8	Model	<ul style="list-style-type: none"> ° Only cooling
C	Condensing unit	
9	Heat recovery	<ul style="list-style-type: none"> ° Without heat recovery
D	Desuperheater (3)	
10	Version	<ul style="list-style-type: none"> ° Standard
L	Low noise versions (4)	
11	Coil	<ul style="list-style-type: none"> ° Aluminium
R	Copper	
S	Tinned copper	
V	Coated	
12	fans	<ul style="list-style-type: none"> ° Standard
M	High static pressure	
J	Inverter (5)	
13	Power supply	<ul style="list-style-type: none"> ° 400V/3N/50Hz
14	Soft-start	<ul style="list-style-type: none"> ° Without Soft Start
S	With Soft Start	
15-16	Integrated hydronic module user side	
00	Without hydronic module	
01	n° 1 Low head pump and buffer tank	
02	n° 2 Low head pumps and buffer tank	
03	n° 1 high head pump and buffer tank	
04	n° 2 high head pumps and buffer tank	
P1	n° 1 Low head pump	
P2	n° 2 Low head pumps	
P3	n° 1 high head pump	
P4	n° 2 high head pumps	

(3) "D" option is not compatible with "Y" valve.

(4) Sizes up 290 to 400 are available only in the silenced mode "L".

(5) The fan inverter is only available in sizes from 580 to 650

Technical data

Model			290	300	340	400	580	620	650
Cooling capacity	°	kW	-	-	-	-	111	124	133
	L	kW	55	60	66	76	104	114	121
Total power input	°	kW	-	-	-	-	40,36	47,13	54,40
	L	kW	20,96	22,99	25,19	29,88	43,69	51,23	59,44
EER	°	W/W	-	-	-	-	2,74	2,63	2,44
	L	W/W	2,60	2,60	2,61	2,54	2,38	2,23	2,03
ESEER	°		-	-	-	-	4,03	3,99	3,72
	L		3,83	3,83	3,93	3,83	3,71	3,68	3,52
Water flow rate	°	l/h	-	-	-	-	19205	21472	23013
	L	l/h	9422	10339	11388	13154	18029	19772	20933
Total pressure drop	°	kPa	-	-	-	-	81	61	70
	L	kPa	28	33	40	41	72	52	58
Usefoul head	01-02	°	kPa	-	-	-	74	80	61
	P1-P2	L	kPa	123	114	103	93	91	87
Usefoul head	03-04	°	kPa	-	-	-	167	174	155
	P3-P4	L	kPa	162	153	179	170	183	180

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Model			290C	300C	340C	400C	580C	620C	650C
Cooling capacity	°	kW	-	-	-	-	115	128	138
	L	kW	55	61	67	77	108	117	126
Total power input	°	kW	-	-	-	-	39,6	46,2	53,4
	L	kW	20,7	22,5	24,8	29,4	39,5	47,3	54,9
EER	°	W/W	-	-	-	-	2,91	2,77	2,59
	L	W/W	2,66	2,69	2,69	2,62	2,73	2,48	2,30

Connections

gas line	Ø	28	35	35	42	42	42	54
liquid line	Ø	22	22	22	28	28	28	35

Cooling:

Evaporating temperature 5°C; External air temperature 35°C

GENERAL DATA			290	300	340	400	580	620	650	
Electrical data										
Total input current	(1)	°	A	-	-	-	-	70	82	94
	(1)	L	A	38	41	46	55	74	87	101
Maximum current (FLA)	(1)		A	49	53	58	69	85	99	112
Starting current (LRA)	(1)		A	130	131	162	183	262	308	320
Starting current with Soft Start				99	101	123	140	198	230	242
Compressor										
Compressor			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	2	2	2	2	2	2	2
Circuit			n°	1	1	1	1	1	1	1
capacity Control			%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Refrigerant			type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger user side										
Exchanger			type	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1
Water connections		(in/out)	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Fans standard										
Fans			type	Axial	Axial	Axial	Axial	Axial	Axial	Axial
			n°	4	4	4	6	2	2	2
Air flow			m³/h	15600	15600	15600	20700	35900	35900	35900
Sound data										
Sound pressure level		°	dB(A)	-	-	-	-	50	50	51
		L	dB(A)	41	41	42	43	45	45	46
Sound power level		°	dB(A)	-	-	-	-	82	82	83
		L	dB(A)	73	73	74	75	77	77	78
Power supply			V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Sound power

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

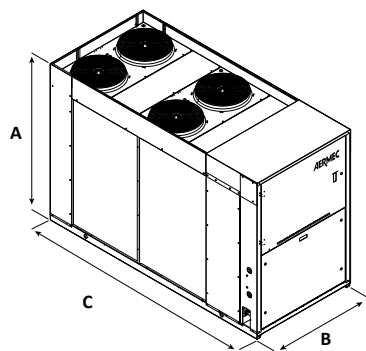
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

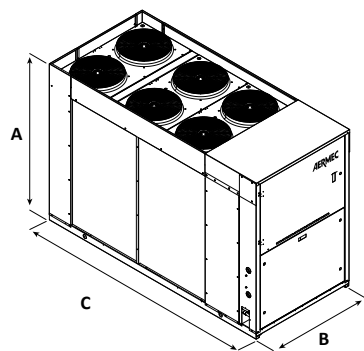
(1) The electrical data of the versions without hydronic module integrated

Dimensions (mm)

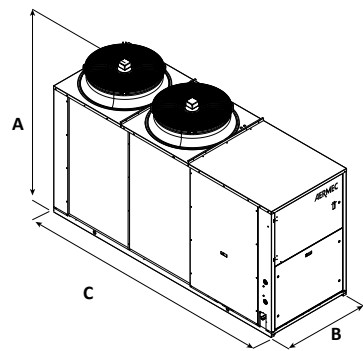
ANL°/L/C 290-300-340



ANL°/L/C 400



ANL°/L/C 580-620-650



				ANL 290	ANL 300	ANL 340	ANL 400	ANL 580	ANL 620	ANL 650
Height	A	mm	°/L/C	1605	1605	1605	1605	1875	1875	1875
Width	B	mm	°/L/C	1100	1100	1100	1100	1100	1100	1100
Depth	C	mm	°/L/C	2450	2450	2450	2450	3200	3200	3200
Empty weight		Kg	°/L	628	636	648	666	854	925	970

ANL 290/650 heat pump

R410A



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

Air cooled heat pump
Axial fans
Heating capacity 61÷142kW
Cooling capacity 53÷128kW

Variable Multi Flow

VMF



• HEAT PUMP VERSION • VERSION WITH PUMP

• VERSION WITH PUMP AND STORAGE TANK

Features

- Available in 7 sizes.
- Heat pump models.
- Monocircuit.
- R410A gas.
- Available in 2 version:
[J] Standard ANL 400/650
[L] Low noise version ANL 290/650
- High efficiency scroll compressors
- Flow switch as standard supply.
- Low and high pressure transducers as standard supply.
- **Cooling mode: ANL-H 290-400 up to 43°C**
- **Cooling mode: ANL-H 580-650 up to 44°C**
- **Heating mode: ANL-H 290-650 up to 50°C**
- High efficiency exchangers.
- Axial fans with low sound level.
- Versions with hydronic kit.
- Pump+Pump standby option controlled by manual switch.
- Electronic controller (Modu_control).
- Metallic protective cabinet with anti-corrosion polyester paint.
- Microprocessor control system
 - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature
 - Summer condensation control with 0-10V modulating signal depending on pressure,

compensated according to the outside air temperature (with DCPX accessory)

- Intelligent defrosting to decay of pressure.
- Automatic rotation of compressors.
- Load limiting safety control.
- Automatic reset of alarms before total block.
- Alarm history.

Accessories

- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures from less than 20 °C down to - 10 °C.
- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **AERSET:** accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.
Mandatory accessory:
AER485 or MODU-485A
- **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.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.

For complete control the following accessories are available:

- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply

water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

- **VT:** Anti-vibration mounts.
- **GP:** Protects the external coil from blows.
- **RIF (THIS ACCESSORY MUST THEREFORE BE SPECIFIED WHEN THE ORDER IS PLACED, CAN ONLY BE APPLIED IN THE FACTORY):** Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.

COMPATIBILITY WITH THE VMF SYSTEM.

For further system information please refer to the specific documentation.

Accessory compatibility

ANL-H		290	300	340	400	580	620	650
DCPX (version with standard fan "00")	°/L	58	58	58	83	83	83	83
DCPX (version with high static pressure fan "M")	°/L	62	62	63	-	-	-	-
PR3	°/L	•	•	•	•	•	•	•
AERSET	°/L	•	•	•	•	•	•	•
MODU-485A	°/L	•	•	•	•	•	•	•
AERWEB-300	°/L	•	•	•	•	•	•	•
MULTICONTROL	°/L	•	•	•	•	•	•	•
SPLW	°/L	•	•	•	•	•	•	•
VT (00)	°/L	17	17	17	11	11	11	11
VT (P1-P2-P3-P4)	°/L	13	13	13	11	11	11	11
VT (01-02-03-04)	°/L	13	13	13	11	11	11	11
GP	°/L	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)	GP2 (x2)
RIF	°/L	32	32	42	42	50	72	51

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.

Code 1,2,3	DESCRIPTION ANL	13	POWER SUPPLY ° 400V-3N -50 Hz
4,5,6	SIZE 290-300-340-400-580-620-650	14	SOFT START ° Without Soft Start S With Soft Start
7	FIELD OF USE ° Standard with produced water down to +4 °C Y Low leaving water up to -6 °C X Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us)	15-16	SORAGE TANK/PUMP 00 Without pump or storage tank 01 Low head pump and buffer tank 02 Single and standby low head pump and buffer tank 03 Single high head pump and buffer tank 04 Single and standby high head pump and buffer tank P1 Low head pump P2 Single and standby low head pump P3 Single high head pump P4 Single and standby high head pump
8	MODEL H Heat pump		
9	HEAT RECOVERY ° Without heat recovery D With partial heat recovery (desuperheater)		
10	VERSION ° Standard (ANL 400-580-620-650) L Low noise		ATTENTION: • Sizes up 290 to 340 are available only in the silenced mode "L". • The configuration (02-04-P2-P4) option controlled by manual switch. • "D" option is not compatible with "Y" valve.
11	COIL ° Aluminium R Copper S Tinned copper V Coated		
12	FAN ° Standard M High static pressure (ANL 290-300-340) J Inverter (ANL 400-580-620-650)		

Technical data

ANL-H			290	300	340	400	580	620	650
Cooling capacity	kW	°	-	-	-	83	106	122	128
		L	53	57	66	78	101	116	122
Total power input	kW	°	-	-	-	28,98	41,54	43,30	48,42
		L	20,91	23,86	24,52	30,58	44,60	46,47	51,87
Evaporator water flow rate	l/h	°	-	-	-	14247	18292	21088	22291
		L	9152	9888	11348	13466	17412	20089	21150
Total pressure drop	kPa	°	-	-	-	29	44	53	61
		L	26	24	31	26	40	48	55
Total input current	A	°	-	-	-	52	68	70	77
		L	37	41	45	54	72	75	83
Heating capacity	kW	°/L	61	66	73	90	122	134	142
Total power input	kW	°/L	18,82	20,60	22,37	28,44	38,73	42,07	46,00
Condenser water flow rate	l/h	°/L	10407	11372	12431	15412	20902	22834	24176
Total pressure drop	kPa	°/L	32	29	35	33	55	61	70
Total input current	A	°/L	34	36	42	51	63	68	74
ENERGY INDEX									
EER	W/W	°	-	-	-	2,85	2,55	2,82	2,66
		L	2,53	2,40	2,68	2,55	2,26	2,50	2,36
ESEER	W/W	°	-	-	-	4,06	3,74	4,06	3,93
		L	3,80	3,69	4,15	3,64	3,31	3,60	3,48
COP	W/W	°/L	3,23	3,22	3,25	3,16	3,16	3,17	3,08
POWER SUPPLY									
Power supply	V	400V-3N-50Hz (with thermomagnetic switches)							
Maximum current (FLA)	A	°/L	44	47	54	65	98	107	116
Starting current (LRA)	A	°/L	126	128	160	181	264	264	273
IP PROTECTION									
IP	-	°/L	24	24	24	24	24	24	24
GAS									
Type	-	°/L	R410A						
SCROLL COMPRESSOR (Scroll)									
Compressor / Circuit	n°/n°	°/L	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Crank case	n°/W	°/L	2/44	2/44	4/44	4/44	2/140	2/140	2/140
AXIAL FAN (°)									
Quantity	n°	°/L	4	4	6	2	2	2	2
Cold air flow	m³/h	°	-	-	-	45800	45800	44600	44600
		L	17600	17600	17200	32060	32060	31220	31220
Heat air flow	m³/h	°/L	17000	17000	16400	44400	44400	43000	43000
EVAPORATORS (Plates)									
Quantity	n°	°/L	1	1	1	1	1	1	1
Hydraulic connection (VICTAULIC)	Ø	°/L	2½	2½	2½	2½	2½	2½	2½
HYDRONIC KIT									
Buffer tank	l	°/L	300	300	300	300	400	400	400
Expansion tank	n°/l	°/L	1/25	1/25	1/25	1/25	1/25	1/25	1/25
Security valve	bar	°/L	6	6	6	6	6	6	6
SOUND DATA									
Sound power	dB(A)	°	-	-	-	89,4	89,4	89,4	89,4
		L	73,4	74,1	74,3	83,4	84,0	84,6	85,2
Sound pressure	dB(A)	°	-	-	-	57,6	57,6	57,6	57,6
		L	41,7	42,4	42,6	51,5	52,1	52,7	53,4

DATA DECLARED IN ACCORDANCE WITH UNI EN 14511: 2011

COOLING

Evaporator water inlet
Evaporator water outlet
External air temperature
Δt

12°C
7°C
35 °C
5°C

Heating

Evaporator water inlet
External air temperature
Evaporator water outlet
Δt

40°C
7°C
45°C
5°C

Sound power

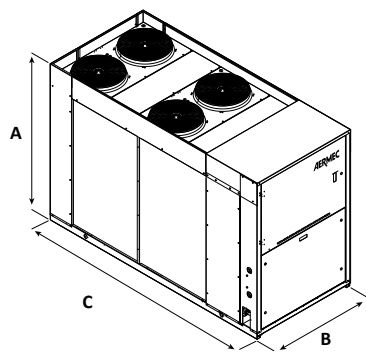
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure

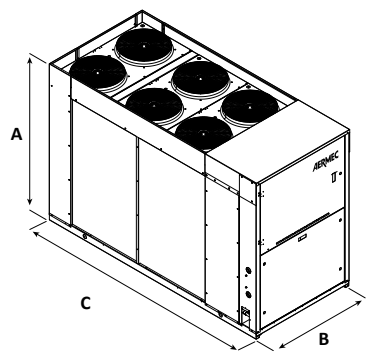
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)

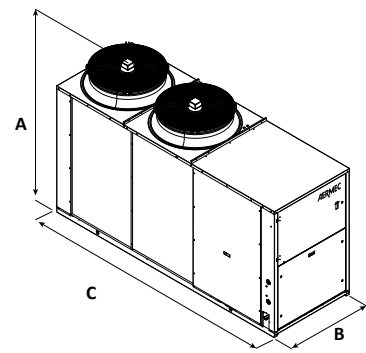
ANL-H 290-300



ANL-H 340



ANL-H 400-580-620-650



DIMENSIONS / WEIGHT			ANL-H 290	ANL-H 300	ANL-H 340	ANL-H 400	ANL-H 580	ANL-H 620	ANL-H 650
Height	A	mm	1605	1605	1605	1875	1875	1875	1875
Width	B	mm	1100	1100	1100	1100	1100	1100	1100
Depth	C	mm	2450	2450	2450	2950	3200	3200	3200
Empty weight "00"		Kg	655	660	684	808	902	1008	1053
Functioning weight "00"		Kg	673	679	703	832	926	1033	1078

ANLI

Reversible heat pumps inverter
Air/water outdoor installation.
Axial fans and scroll compressor
Cooling capacity 5,70÷29,43kW
Heating capacity 6,10÷31,7kW

R410A



Aermec

participates at EUROVENT program: LCP

The involved products can be found in the website

www.eurovent-certification.com

Variable Multi Flow®

VMF

INVERTER
TECHNOLOGY



- **STANDARD VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT ON/OFF – INVERTER**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

Caratteristiche

Reversible Heat pumps units

Version

ANLI_H Heat pumps, without hydronic kit

Versions with hydronic kit

ANLI_HP with standard pump on/off

ANLI_HX with standard pump inverter

• Operational limits (1)

- max. external air temperature 42°C
- max. Leaving water temperature 60°C heating mode
- Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
- Perfect water temperature control even in systems with low water content
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation

- Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
Constant ΔP: maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close
Variable ΔP: reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)
- Water filter, differential pressure switch, depending on the model, fitted on all units.
- High efficiency heat exchangers with trace heating as standard
- Axial flow fan units for extremely quiet operation
- Inverter axial fan (for size up 040H to 080H)
- Fitted with EMC filters
- The built-in hydraulic kit includes the main water circuit components
- Controller:
 - Aermec Modu_Control circuit board
 - User interface with 6 soft-touch keys, 4 digit display, 6 LEDs
 - Control of the leaving water temperature with PID algorithm
 - Set-point compensation based on the external air temperature
 - Display of operating frequency
 - Control of compressor ramp speed
 - Auto-adaptive intelligent defrosting
 - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory (when provided)
 - Load limiting safety control by reducing compressor speed
 - High and low pressure transducers
 - Automatic reset of alarms before tripping
 - Alarms history

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **MODU-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;

- **AERSET:** L'accessoire AERSET permet de compenser automatiquement (en fonction des configurations logiciel saisies) les points de consigne de travail de unité auxquels il est relié, en se basant sur un signal 0-10V MODBUS en

entrée; Accessoire obligatoire: AER485 ou MODU-485A

MULTICONTROL: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.

For complete control the following accessories are available:

SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.

VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL

- **PR3:** Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be controlled with a shielded cable at a distance up to 150 m.
- **DCPX:** Allows correct operation, in cooling mode, with outside temperatures lower than 20 °C and as low as - 10 °C, in heating mode up to 42 °C.
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
 - BS4KW230M (4 kW, 230V/1/50Hz)
 - BS6KW230M (6 kW, 230V/1/50Hz)
 - BS6KW400T (6 kW, 400V/3/50Hz)
 - BS9KW400T (9 kW, 400V/3/50Hz)

- **VT:** Anti-vibration mounts.
- **BDX5:** Condensate drip tray

Accessories factory fitted only

- **BDX8/9:** Condensate drip tray with integrated electric heater controlled by the external air temperature sensor.
- **KR:** Electric anti-freeze resistance for plate heat exchanger.
- **KRB:** Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

COMPATIBILITY with VMF SYSTEM

For further information on system, refer to specific documentation.

ANLI_H	vers	021	025	026	040	045	071	075	080	101
MODU-485A	All	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•
AERSET	All	•	•	•	•	•	•	•	•	•
MULTICONTROL	All	•	•	•	•	•	•	•	•	•
SPLW	All	•	•	•	•	•	•	•	•	•
SDHW	All	•	•	•	•	•	•	•	•	•
VMF-CRP	All	•	•	•	•	•	•	•	•	•
PR3	All	•	•	•	•	•	•	•	•	•
DCPX	(1) All	51	51	51						53
VT	All	9	9	9	9	9	9	9	9	15
BS4KW230M	230V/1	•	•	•	•	•	-	-	-	-
BS6KW230M	230V/1	•	•	•	•	•	-	-	-	-
BS6KW400T	400V/3N	-	-	-	-	-	•	•	•	•
BS9KW400T	400V/3N	-	-	-	-	-	•	•	•	•
BDX	All	-	5	-	-	-	-	-	-	-
Accessories factory fitted only										
BDX	All	8	-	8	9	9	9	9	9	-
KR	All	-	2	-	-	-	-	-	-	2
KRB	All	1	-	1	2	2	2	2	2	3

(1) The size ANLI040H÷ANLI080H Inverter fans are fitted as standard

Unit Configurator

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

Field	Code
1,2,3,4	ANLI
5,6,7	Size 021-025-026-040-045-071-075-080-101
8	Model
H	Heat pump
9	Versions
°	Standard
P	With ON/OFF pump
X	With inverter pump
10	Heat recovery
°	Without heat recovery
11	Coil
°	Aluminium
R	Copper
S	Tinned copper
V	In painted aluminium-copper (epoxy paint)
12	Field of use
°	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13	Evaporator
°	Standatd
14	Power supply
M	230V/1/50Hz (021-025-026-040-045)
°	400V/3N/50Hz

Technical Data

Model ANLI			021H	025H	026H	040H	045H	071H	075H	080H	101H			
												F1	F2	F3
Cooling capacity	H	kW	5,71	6,42	7,26	9,39	12,25	13,66	16,35	18,51	28,77	23,95	20,03	
	HP	kW	5,75	6,49	7,33	9,48	12,37	13,82	16,55	18,73	29,43	24,53	20,23	
	HX	kW	5,79	6,53	7,37	9,52	12,42	13,88	16,58	18,73	29,43	24,53	20,23	
Input power	H	kW	1,94	2,42	2,58	3,17	4,37	4,80	6,16	7,63	11,73	8,14	6	
	HP	kW	1,98	2,44	2,59	3,17	4,34	4,79	6,11	7,55	11,82	8,31	5,8	
	HX	kW	1,91	2,37	2,53	3,10	4,27	4,66	6,00	7,47	11,82	8,31	5,8	
EER	H	W/W	2,95	2,65	2,82	2,97	2,80	2,84	2,66	2,43	2,45	2,94	3,34	
	HP	W/W	2,91	2,66	2,83	2,99	2,85	2,89	2,71	2,48	2,49	2,95	3,49	
	HX	W/W	3,03	2,75	2,92	3,07	2,91	2,98	2,76	2,51	2,49	2,95	3,49	
ESEER	H		4,15	3,54	4,10	4,06	4,10	4,20	4,17	4,12	4,11	4,11	4,11	
	HP		4,11	3,60	4,29	4,22	4,40	4,19	4,33	4,34	4,40	4,40	4,40	
	HX		4,38	3,91	4,54	4,36	4,47	4,65	4,65	4,59	4,40	4,40	4,40	
Water flow rate	H	l/h	987	1115	1256	1622	2119	2363	2831	3207	4948	4120	3445	
	HP	l/h	987	1115	1256	1622	2119	2363	2831	3207	5061	4219	3480	
	HX	l/h	987	1115	1256	1622	2119	2363	2831	3207	5061	4219	3480	
Pressure drops	H	kPa	11	29	17	12	20	18	25	32	50	30	24	
Available head	HP	kPa	67	52	59	62	50	92	82	73		92		
	HX	kPa	74	60	68	72	61	82	61	42		174		
Heating capacity	H	kW	6,23	7,31	7,79	9,92	12,75	15,16	17,60	20,12	31,7	24,95	20,08	
	HP	kW	6,18	7,24	7,72	9,82	12,62	14,99	17,39	19,89	31,0	24,3	19,54	
	HX	kW	6,14	7,20	7,68	9,78	12,57	14,94	17,38	19,91	31,0	24,3	19,54	
Input power	H	kW	1,93	2,33	2,45	3,17	4,23	4,85	6,07	7,27	11,4	8,34	6,36	
	HP	kW	1,97	2,34	2,46	3,16	4,19	4,82	6,01	7,19	11,45	8,35	6,38	
	HX	kW	1,90	2,28	2,40	3,09	4,12	4,70	5,92	7,13	11,45	8,35	6,38	
COP	H	W/W	3,23	3,14	3,18	3,13	3,02	3,13	2,90	2,77	2,78	2,99	3,16	
	HP	W/W	3,14	3,09	3,13	3,11	3,01	3,11	2,89	2,77	2,71	2,91	3,06	
	HX	W/W	3,23	3,16	3,20	3,16	3,05	3,18	2,94	2,79	2,71	2,91	3,06	
Water flow rate	H	l/h	1066	1246	1331	1698	2179	2594	3008	3437	5452	4291	3454	
	HP	l/h	1066	1246	1331	1698	2179	2594	3008	3437	5332	4179	3362	
	HX	l/h	1066	1246	1331	1698	2179	2594	3008	3437	5332	4179	3362	
Pressure drops	H	kPa	11	29	18	12	20	18	24	32	59	36	23	
Available head	HP	kPa	65	48	58	61	51	88	80	69		85		
	HX	kPa	74	57	67	71	61	74	55	33		167		

Cooling: (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; Evaporator water temperature 35°C

Heating: (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

(F1) maximum performance

(F2) performance compliant with french standard NF

(F3) Intermediate performance

Model			021H	025H	026H	040H	045H	071H	075H	080H	101H				
													F1	F2	F3
Heating capacity	H	kW	6,58	7,58	8,16	10,51	12,94	16,17	18,57	21,03	33,75	25,34	20,87		
	HP	kW	6,52	7,50	8,08	10,41	12,81	15,98	18,35	20,78	33,01	24,65	20,32		
	HX	kW	6,48	7,46	8,03	10,37	12,76	15,95	18,35	20,82	33,01	24,65	20,32		
Input power	H	kW	1,63	1,96	2,07	2,68	3,55	4,08	5,09	6,13	9,85	7,05	5,44		
	HP	kW	1,66	1,97	2,07	2,67	3,51	4,04	5,02	6,03	9,86	7,06	5,46		
	HX	kW	1,59	1,90	2,00	2,60	3,44	3,92	4,94	5,99	9,86	7,06	5,46		
COP	H	W/W	4,03	3,87	3,94	3,92	3,64	3,97	3,64	3,43	3,43	3,59	3,84		
	HP	W/W	3,93	3,81	3,88	3,90	3,65	3,96	3,65	3,45	3,35	3,49	3,72		
	HX	W/W	4,07	3,93	4,00	3,99	3,71	4,07	3,71	3,48	3,35	3,49	3,72		

Heating: (14511:2011)

Condenser water temperature (in/out) 30°C/35°C; External air temperature 7°C b.s./6°C b.u.

(F1) maximum performance

(F2) performance compliant with french standard NF

(F3) Intermediate performance

Technical Data

GENERAL DATA				021H	025H	026H	040H	045H	071H	075H	080H	101H			
													F1	F2	F3
Electrical data															
Total input current cooling mode	(1)	H	A	8,40	10,90	11,20	13,70	19,10	7,30	9,40	11,40	16,30	11,30	8,30	
	(1)	HP	A	9,2	11,68	12,00	14,50	19,90	8,90	11,0	13,10	17,70	12,70	9,70	
	(1)	HX	A	8,9	11,73	11,70	14,20	19,60	8,00	10,10	12,20	17,70	12,70	9,70	
Total input current heating mode	(2)	H	A	8,00	11,30	10,20	13,60	18,10	7,30	9,10	10,80	15,70	11,50	8,80	
	(2)	HP	A	8,78	12,08	10,98	14,43	18,93	8,90	10,70	12,50	17,1	12,9	10,2	
	(2)	HX	A	8,50	12,15	10,70	14,10	18,60	8,02	9,83	11,53	17,1	12,9	10,2	
Total input current heating mode	(3)	H	A	6,70	9,41	8,60	11,40	15,10	6,10	7,60	9,00	13,57	9,72	7,53	
	(3)	HP	A	7,47	10,20	9,38	12,23	15,93	7,70	9,20	10,70	14,73	10,91	8,73	
	(3)	HX	A	7,19	10,26	9,10	11,90	15,60	6,82	8,33	9,73	14,73	10,91	8,73	
Maximum current (FLA)	(4)	H	A	12,10	14,00	14,10	20,00	23,60	12,50	13,50	15,00	21,00	21,00	21,00	
Starting current (LRA)	(4)	H	A	8,00	20,00	8,00	10,00	10,00	15,00	15,00	15,00	30,00	30,00	30,00	
Compressors															
Compressors	type			scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll			
	n°			1	1	1	1	1	1	1	1	1			
Circuits	n°			1	1	1	1	1	1	1	1	1			
Capacity control	%			0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-100			
Refrigerant	type			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A			
System side exchanger															
Exchanger	type			plate	plate	plate	plate	plate	plate	plate	plate	plate			
	n°			1		1	1	1	1	1	1	1			
hydraulic connections	(in/out)	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	1"1/4	1"1/4			
Fans standard															
fans	type			axial	axial	axial	axial	axial	axial	axial	axial	axial			
	n°			1		1	2	2	2	2	2	2			
Air flow rate cooling mode	m³/h			3500	3500	3500	8000	8000	7500	7500	7500	13200			
Sound data															
Sound pressure	dB(A)			31,0	37,0	32,5	35,7	36,7	36,7	38,0	38,0	44,0			
Sound power	dB(A)			62,0	68,0	63,5	66,7	67,7	67,7	69,0	69,0	76,0			
Power supply	V/ph/Hz			230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3	400V/3			

Sound power

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

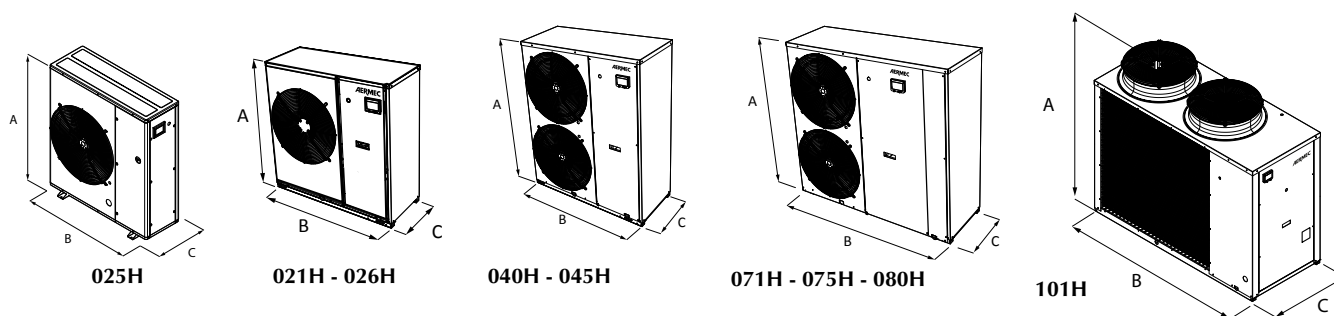
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

- (1) Evaporator water temperature (in/out) 12°C/7°C; Evaporator water temperature 35°C
 (2) Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.
 (3) Condenser water temperature (in/out) 30°C/35°C; External air temperature 7°C b.s./6°C b.u.
 (4) The electrical data of the versions without hydronic module integrated

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

Dimensions (mm)



ANLI				021H	025H	026H	040H	045H	071H	075H	080H	101H
Height	(A)	mm	Alls	1028	868	1028	1281	1281	1281	1281	1281	1450
Width	(B)	mm	Alls	1000	900	1000	1000	1000	1150	1150	1150	1750
Depth	(C)	mm	Alls	400	354	400	450	450	450	450	450	750
Weight	H	kg		118	70	118	138	138	174	174	174	293
	HP HX	kg		123	72	123	143	143	184	184	184	308

ANK

R410A



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



Reversible heat pump Air/Water
Optimized for heating, outdoor installation
Axial fans, scroll compressor
Cooling capacity 6,82÷29,92kW
Heating capacity 7,98÷33,51kW



Certificate Number MCS 0152
Heat Pumps Technology



- **STANDARD VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT**
- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO -20 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM -20 °C UP TO 42 °C**

Characteristics

Reversible Heat pumps units

Versions

ANK H: Heat pumps high efficiency, without hydronic kit

Versions with hydronic kit

ANK_HP: with standard pump

ANK HA: with buffer tank and standard pump

• Operational limits (1)

- max. external air temperature 46°C
- max. Leaving water temperature 60°C

- heating mode
- High efficiency scroll compressors with low power input
- Electronic soft start to reduce starting current (standard for single phase versions)
- High efficiency heat exchangers with trace heating as standard
- flow switch as standard supply
- Water filter
- Axial flow fan units for extremely quiet operation

- Inverter axial flow fan units for heat pumps (ANK020H÷ANK085H)
- The hydronic kit includes:
 - Expansion tank
 - Safety valve
 - Pressure gauge
- Electronic controller (Modu_control)
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **MODU-485A:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET**
The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory: AER485 or MODU-485A**
- **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.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.
For complete control the following accessories are available:

SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.

VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change

of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.

- **DCPX:** an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C; in heating mode in summer to produce DHW with external temperatures up to +42 °C.
- **BDX:** Condensate drip tray with integrated electric heater controlled by the external air

temperature sensor.

- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
 - BS4KW230M (4 kW, 230V/1/50Hz)
 - BS6KW230M (6 kW, 230V/1/50Hz)
 - BS6KW400T (6 kW, 400V/3/50Hz)
 - BS9KW400T (9 kW, 400V/3/50Hz)
- **VT:** Anti-vibration mounts.

Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%.
- **KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.

Compatibility with the VMF system

For further system information please refer to the specific documentation.

ANK	vers	020	030	040	045	050	085	100	150
MODU-485A		•	•	•	•	•	•	•	•
AERSET		•	•	•	•	•	•	•	•
AERWEB300		•	•	•	•	•	•	•	•
MULTICONTROL		•	•	•	•	•	•	•	•
SPLW		•	•	•	•	•	•	•	•
SDHW		•	•	•	•	•	•	•	•
VMF-CRP		•	•	•	•	•	•	•	•
PR3		•	•	•	•	•	•	•	•
DCPX	(1)							53	53
BS4KW230M		•	•	•	•	-	-	-	-
BS6KW230M		•	•	•	•	-	-	-	-
BS6KW400T		-	-	-	-	•	•	•	•
BS9KW400T		-	-	-	-	•	•	•	•
VT	H/HP	9	9	9	9	9	9	15	15
	HA	15A	15A	15A	15A	15A	15A	15	15
Accessories factory fitted only									
DRE	(2)	•	•	•	•	•	•	•(x2)	•(x2)
KRB1		•	-	-	-	-	-	-	-
KRB2			•	•	•	•	•	-	-
KRB3		-	-	-	-	-	-	•	•
BDX		8	9	9	9	9	9	-	-

(1) The size ANK020H÷085H Inverter fans are fitted as standard

(2) Only available for 400V/3N/50Hz power supply

(x2) n° the quantity to order

Unit Configurator

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

fields	Code
1,2,3	ANK
4,5,6	Size
	020-030-040-045-050-085-090-100-150
7	Model
	H Heat pump
8	Version
	° Standard
	P With pump
	A With buffer tank and pump
9	Execution
	° Standard
10	Coil fins
	° Aluminium
	R Copper
	S Tinned copper
	V Coated aluminium (epoxy paint)
11	Field of use
	° Standard (leaving water temperature down to 4°C)
	Z Low temperature (Low leaving liquid from 4°C down to up to 0°C)
	Y Low temperature (Low leaving liquid from 0°C down to -8°C)
12	Evaporator
	° Standatd
13	Power supply
	M 230V/1/50Hz (from 020 to 045)
	° 400V/3N/50Hz

Technical Data

Model - ANK			020	030	040	045	050	085	100	150
Cooling capacity	H	kW	6,82	8,15	9,55	11,69	-	-	-	-
	HP/HA	kW	6,91	8,25	9,67	11,85	-	-	-	-
Total power input	H	kW	2,36	2,82	3,24	3,73	-	-	-	-
	HP/HA	kW	2,43	2,89	3,30	3,88	-	-	-	-
EER	H	W/W	2,89	2,89	2,95	3,13	-	-	-	-
	HP/HA	W/W	2,84	2,85	2,93	3,05	-	-	-	-
ESEER	H		3,16	3,24	3,28	3,46	-	-	-	-
	HP/HA		3,28	3,37	3,45	3,47	-	-	-	-
Water flow rate		l/h	1173	1402	1643	2011	-	-	-	-
Total pressure drop	H	kPa	16	9	14	14	-	-	-	-
Available head	HP/HA	kPa	65	70	64	87	-	-	-	-
Heating capacity	H	kW	7,98	10,05	10,88	13,50	-	-	-	-
	HP/HA	kW	7,87	9,91	10,74	13,29	-	-	-	-
Total power input	H	kW	2,54	3,11	3,47	3,88	-	-	-	-
	HP/HA	kW	2,59	3,15	3,51	3,98	-	-	-	-
COP	H	W/W	3,14	3,23	3,14	3,48	-	-	-	-
	HP/HA	W/W	3,04	3,15	3,06	3,34	-	-	-	-
Water flow rate		l/h	1373	1729	1871	2322	-	-	-	-
Total pressure drop	H	kPa	24	16	19	19	-	-	-	-
Available head	HP/HA	kPa	62	67	62	82	-	-	-	-
Power supply		V/ph/Hz	230V/1	230V/1	230V/1	230V/1				

Model - ANK			020	030	040	045	050	085	100	150
Cooling capacity	H	kW	6,76	8,15	10,48	11,57	13,04	15,48	25,20	29,20
	HP/HA	kW	6,84	8,25	10,61	11,74	13,22	15,68	25,78	29,92
Total power input	H	kW	2,33	2,82	3,55	3,98	4,34	5,22	8,18	10,13
	HP/HA	kW	2,41	2,89	3,61	4,12	4,49	5,35	8,13	10,20
EER	H	W/W	2,90	2,89	2,95	2,91	3,00	2,97	3,08	2,88
	HP/HA	W/W	2,84	2,85	2,94	2,85	2,94	2,93	3,17	2,93
ESEER	H		3,18	3,24	3,27	3,25	3,4	3,33	3,89	3,85
	HP/HA		3,30	3,35	3,44	3,26	3,45	3,41	4,08	3,93
Water flow rate		l/h	1163	1402	1803	1990	2243	2663	4334	5022
Total pressure drop	H	kPa	16	9	16	14	18	24	32	36
Available head	HP/HA	kPa	65	70	61	87	80	70	113	140
Heating capacity	H	kW	7,98	10,05	12,26	14,07	15,38	17,49	27,19	33,51
	HP/HA	kW	7,87	9,91	12,10	13,85	15,15	17,25	26,59	32,72
Total power input	H	kW	2,50	3,11	3,79	4,18	4,44	5,07	8,43	10,56
	HP/HA	kW	2,55	3,15	3,81	4,27	4,54	5,13	8,37	10,61
COP	H	W/W	3,19	3,23	3,23	3,37	3,46	3,45	3,23	3,17
	HP/HA	W/W	3,09	3,15	3,18	3,24	3,34	3,34	3,18	3,08
Water flow rate		l/h	1373	1729	2109	2420	2645	3008	4677	5764
Total pressure drop	H	kPa	24	15	23	21	25	30	37	47
Available head	HP/HA	kPa	62	67	57	79	72	65	113	127
Power supply		V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Cooling: (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating: (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

Model - ANK			020	030	040	045	050	085	100	150
Heating capacity	H	kW	8,67	10,92	13,40	14,80	16,27	18,46	29,12	35,90
	HP/HA	kW	8,58	10,84	13,24	14,88	16,12	18,31	28,49	35,06
Total power input	H	kW	2,12	2,64	3,22	3,55	3,81	4,36	7,03	8,92
	HP/HA	kW	2,18	2,64	3,23	3,60	3,91	4,45	6,95	8,94
COP	H	W/W	4,10	4,14	4,17	4,17	4,27	4,23	4,14	4,03
	HP/HA	W/W	3,94	4,10	4,10	4,13	4,12	4,11	4,10	3,92
Alimentazione		V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Heating: (14511:2011)

Condenser water temperature (in/out) 30°C/35°C; External air temperature 7°C b.s./6°C b.u.

Model - ANK			020	030	040	045	050	085	100	150
Heating capacity	H	kW	8,363	10,700	11,694	14,040	-	-	-	-
	HP/HA	kW	8,256	10,620	11,658	13,840	-	-	-	-
Total power input	H	kW	2,039	2,664	2,914	3,270	-	-	-	-
	HP/HA	kW	2,124	2,668	2,929	3,375	-	-	-	-
COP	H	W/W	4,100	4,010	4,010	4,290	-	-	-	-
	HP/HA	W/W	3,880	3,980	3,980	4,100	-	-	-	-
Power supply		V/ph/Hz	230V/1	230V/1	230V/1	230V/1				

Heating: (MCS) (14511:2008)

Condenser water temperature (in/out) 30°C/35°C; External air temperature 7°C b.s./6°C b.u.

Technical Data

Model - ANK			020	030	040	045	050	085	100	150
Heating capacity	H	kW	6,260	8,179	9,764	11,239	11,556	13,300	-	-
	HP/HA	kW	6,048	8,045	9,610	11,021	11,330	12,568	-	-
Total power input	H	kW	1,870	2,545	3,074	3,378	3,550	4,110	-	-
	HP/HA	kW	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	W/W	3,118	3,115	3,103	3,179	3,105	3,107	-	-
Water flow rate	(1)	l/h	1470	1840	2260	2550	2800	3222	-	-
Total pressure drop	H	kPa	28	16	24	18	22	27	-	-
Available head	HP/HA	kPa	55,0	63,0	51,0	74	66	56	-	-
Power supply		V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	-	-

Heating: (EHPA) (14511:2008)

Condenser water temperature (in/out) 30°C/35°C; External air temperature 2°C b.u.

(1) Water flow rates refer to conditions: Condenser water temperature (in/out) 30°C/35°C; External air temperature 7°C b.s./6°C b.u.

GENERAL DATA			020	030	040	045	050	085	100	150
Electrical data										
Total input current cooling mode	(2)	230V/1	A	11,31	13,15	15,84	18,58	-	-	-
	(2)	400V/3N	A	4,38	5,67	7,12	7,71	8,75	10,71	17,05
Total input current heating mode	(2)	230V/1	A	12,29	14,55	17,12	19,18	-	-	-
	(2)	400V/3N	A	4,71	6,21	7,66	8,06	9,00	10,43	17,60
Maximum current (FLA)	(2)	230V/1	A	13,90	19,40	22,20	25,00	-	-	-
	(2)	400V/3N		6,10	7,70	9,10	10,60	11,80	12,30	21,70
Starting current (LRA)	(2)(3)	230V/1	A	45,00	45,00	45,00	45,00	-	-	-
	(2)	400V/3N		39,70	40,30	54,30	61,30	71,30	91,30	104,70

Compressors

Compressors	type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	n°	1	1	1	1	1	1	1	2	2
Circuits	n°	1	1	1	1	1	1	1	1	1
Capacity control	%	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100
Refrigerant	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A

System side exchanger

Exchanger	type	plate	plate	plate	plate	plate	plate	plate	plate	plate
	n°	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	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 standard

Fans	type	axial	axial	axial	axial	axial	axial	axial	axial	axial
	n°	1	1	2	2	2	2	2	2	2
Air flow rate cooling mode	m³/h	3500	8000	8000	7500	7500	7500	14500	13500	

Sound data

Sound pressure	dB(A)	37,0	39,5	39,5	39,5	39,5	39,5	45,5	46,5	
Sound power	dB(A)	68,0	70,5	70,5	70,5	70,5	70,5	77	78	

Sound power

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

Sound pressure

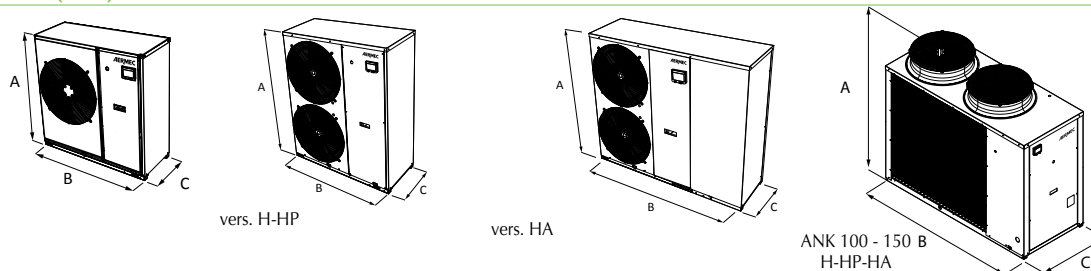
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

(2) Unit in standard configuration/execution without hydroni kit

(3) Electronic soft start, standard for single phase versions

Nota: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)



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

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia

Tel. 0442633111 - Telefax 044293730

www.aermec.com

CL
025/200

R410A



Aermec participates in the EUROVENT Program: LCP/A/P/R
The products of interest can be found on the website
www.eurovent-certification.com

Air cooled chiller and heat pump with plug fan
Cooling Capacity from 5,82 to 40,34 kW
Heating capacity from 7,92 to 44,00 kW

Variable Multi Flow

VMF



- **HEAT PUMP OPTIMISED FOR HEATING: PRODUCTION OF HOT WATER UP TO 60°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**
- **INTERFACES WITH VARIABLE MULTIFLOW VMF SYSTEM**
- **EVAPORATING AND CONDENSING CONTROL STANDARD**
- **INVERTER PLUG FAN**
- **AVAILABLE VERSIONS: STANDARD WITH PUMP WITH PUMP AND BUFFER TANK DOMESTIC HOT WATER (DHW) PRODUCTION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**

Characteristics

- Available in 10 sizes
- Cooling only and heat pump models "H"
- Manufactured with refrigerant R410A
- Versions available:
 - **"H"** Standard
 - **"P"** With pump, expansion tank and water filter
 - **"A"** With pump, expansion tank, water filter and buffer tank
- All versions are available for the production of chilled water down to -6°C (see unit configuration option)
- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Compressor crank case heater standard
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors conforming to regulation EU 327/2011
Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Plate heat exchanger anti-freeze electric heater "KR" standard on heat pump "H" models
- Condensate drain tray standard on heat pump "H" models
- Anti-freeze electric heater standard for the buffer tank

Accessories

- **AERSET:** The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory:** AER485 or MODU-485A
- **MODU - 485A:** RS-485 interface for supervising systems with MODBUS protocol. (accessory mandatory for the production of domestic hot water).
- **DRE:** Electronic soft starter. Reduces starting current by about 30%. Factory fitted only.
- **KR:** Plate heat exchanger anti-freeze electric heater (only available for cooling only versions)
Factory fitted only.
- **PR3:** Simplified remote panel. Permits control of basic unit functions and alarm notification. Remote mounted with shielded cable up to 30 m distance.
- **VT:** Anti-vibration mounts.
- **CLPA:** Galvanised steel plenum to be installed on the condenser coil. Facilitates duct installations.
- **GPCI:** Protective grille. Protects the external condenser coil from damage.
- **KR B4/B5/B6:** Electric base heater to prevent the formation of ice (only available for heat pump versions).
- **BSKW:** External electric heater kit of various capacities with single and three phase power supplies:
 - BS4KW230M (4kW, 230V/1/50Hz)
 - BS6KW230M (6kW, 230V/1/50Hz)
 - BS6KW400T (6kW, 400V/3/50Hz)
 - BS9KW400T (9kW, 400V/3/50Hz)
- **MULTICONTROL:** can be used as a remote panel for a single unit or to simultaneously control several chillers or heat pumps (up to 4) installed in the same hydraulic system, fitted with our MODUCONTROL controller.
For complete control the following accessories are available:
 - **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
 - **SDHW:** Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.
- **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;
- **COMPATIBILITY with the VMF SYSTEM**
For more information on the system refer to the manual.

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

L - Low noise

Version:

°- Standard

P- With pump

A- With pump and buffer tank

Heat recovery:

°- Without heat recovery

D - With desuperheater

(for Cooling only models 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 +4°C to 0°C

Y - Low temperature leaving liquid from 0°C to -6°C

Evaporator:

°- Standard

C- Condensing unit

Power supply:

°- 3N~ 400V 50Hz

M - 1~ 230V 50Hz (only for sizes 025 to 040)

3 - 3~ 230V 50Hz (only for sizes 090 and 200, for other sizes contact the factory)

Heat pump "H" model

- condensing unit "C"

- desuperheater "D"

- low noise "L"

Heat recovery "D"

not possible with:

- thermostatic expansion valve "Z" - "Y"

- condensing unit "C"

WARNING

The integral buffer tank of the CLH unit refers to the system and not to the production of domestic hot water.

CL		25	30	40	50	70	80	90	100	150	200
COOLING ONLY "H" HEAT PUMP	Power supply	° H	° H	° H	° H	° H	° H	° H	° H	° H	° H
		°	H	°	H	°	H	°	H	°	H
(1) KRB4	All	-	✓	-	✓	-	-	-	-	-	-
(1) KRB5	All	-	-	-	-	-	✓	-	✓	-	-
(1) KRB6	All	-	-	-	-	-	-	-	-	-	✓
BS4KW230M	All	-	✓	-	✓	-	-	-	-	-	-
BS6KW230M	All	-	✓	-	✓	-	-	-	-	-	-
BS6KW400T	3N~ 400V 50Hz	-	✓	-	✓	-	✓	-	✓	-	✓
BS9KW400T	3N~ 400V 50Hz	-	✓	-	✓	-	✓	-	✓	-	✓
(1) KR2	All	✓	Std	✓	Std	✓	Std	✓	Std	✓	Std
PR3	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VT	° / H / P / HP	9	9	9	9	9	9	9	9	15	15
	A / HA	15A	15A	15A	15A	15A	15A	15A	15A	15	15
AERSET	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(2) MODU - 485A	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(3) CLPA	All	1	1	2	2	2	2	2	2	3	3
(4) DRE	3N~ 400V 50Hz	5	5	5	5	5	5	5	5	5 (x2)	5 (x2)
	3 ~ 230V 50Hz	-	-	-	-	-	-	-	-	-	-
(1) GPCL	All	1	1	2	2	2	2	2	2	3	3
MULTICONTROL	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPLW	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SDHW	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Power supply 1~ 230V 50Hz is available only for sizes 025 - 030 - 040

(1) Accessory factory fitted only

(2) Accessory mandatory for the production of domestic hot water

(3) Not available with accessory GPCL only for sizes 025 to 090

(4) DRE not available for power supply 1~ 230V 50Hz

✓	Available accessory
Std	Fitted as standard
-	Not available

Technical data

Model ^{nom} COOLING ONLY	Units	Version	Power supply	025	030	040	050	070	080	090	100	150	200
Cooling capacity	kW	°	All	5,82	7,11	8,80	12,65	16,28	18,30	20,14	26,16	32,86	40,34
		P/A	All	5,87	7,18	8,89	12,80	16,47	18,51	20,37	24,34	31,94	38,31
		°	All	2,09	2,55	3,47	4,03	5,24	6,45	6,53	8,47	10,78	13,83
Total power input	kW	P/A	All	2,12	2,57	3,47	4,02	5,19	6,38	6,45	8,53	10,98	13,97
Water flow rate	l/h	All	All	1009	1234	1525	2191	2820	3170	3487	4538	5701	7009
Total Pressure drop	kPa	°	All	19,00	26,00	25,00	27,00	29,00	30,00	29,00	45,00	53,00	72,00
Available pump head	kPa	P/A	All	58,26	49,17	49,63	79,21	74,42	71,35	70,62	82,63	131,17	121,75
ENERGY EFFICIENCY													
EER	W/W	°	All	2,79	2,79	2,54	3,13	3,11	2,84	3,08	3,09	3,05	2,92
		P/A	All	2,77	2,80	2,56	3,18	3,17	2,90	3,16	2,85	2,91	2,74
ESEER	W/W	°	All	3,23	3,27	2,98	3,73	3,63	3,29	3,56	4,64	4,55	4,51
		P/A	All	3,21	3,28	3,01	3,79	3,71	3,37	3,64	4,68	4,60	4,53
ELECTRICAL DATA													
Total current input	A	°	230V/1	10,14	12,99	16,91	-	-	-	-	-	-	-
			400V/3N	4,80	5,10	7,50	8,53	10,23	12,03	12,89	16,72	19,76	25,36
		P/A	230V/1	10,91	13,77	17,71	-	-	-	-	-	-	-
			400V/3N	5,57	5,88	8,30	9,88	11,64	13,47	14,36	17,85	21,55	27,33
Maximum current (FLA)	A	°	230V/1	21,6	24,6	24,7	-	-	-	-	-	-	-
			400V/3N	11,1	11,6	12,6	13,68	15,38	16,98	20,38	27,36	30,76	40,76
		P/A	230V/1	22,57	25,57	25,67	-	-	-	-	-	-	-
			400V/3N	12,07	12,57	13,57	15,63	17,33	18,93	22,33	29,32	33,84	43,84
Staring current (LRA)	A	°	230V/1	66,6	87,6	117,6	-	-	-	-	-	-	-
			400V/3N	37,6	40,6	71,6	77,18	77,18	77,18	105,18	90,86	92,56	125,56
		P/A	230V/1	67,57	88,57	118,57	-	-	-	-	-	-	-
			400V/3N	38,57	41,57	72,57	79,13	79,13	79,13	107,13	92,82	95,64	128,64
Model "H" HEAT PUMP													
U.M.	Version	Power supply	025	030	040	050	070	080	090	100	150	200	
Cooling capacity	kW	H	400V/3N	6,39	8,35	10,34	11,90	13,96	15,49	18,92	23,82	31,21	37,43
		HP/HA	400V/3N	6,44	8,42	10,44	12,03	14,12	15,67	19,14	24,34	31,94	38,31
Total power input	kW	H	400V/3N	2,54	2,98	3,56	3,93	4,60	5,37	6,52	7,85	10,43	13,73
		HP/HA	400V/3N	2,57	2,99	3,55	3,94	4,58	5,34	6,46	7,91	10,70	13,93
Water flow rate	l/h	H	All	1105	1442	1787	2055	2413	2678	3275	4126	5394	6484
Total Pressure drop	kPa	H	All	13,00	12,00	13,00	11,00	15,00	17,00	26,00	34,00	22,00	43,00
Available pump head	kPa	HP/HA	All	63,81	63,08	60,09	98,55	92,73	87,84	75,11	99,30	157,54	144,36
Heating capacity													
	kW	H	All	7,92	9,79	12,52	14,47	15,95	18,61	21,06	27,98	34,92	44,00
		HP/HA	All	7,85	9,70	12,39	14,30	15,76	18,39	20,81	27,41	34,14	43,03
Total power input	kW	H	All	2,24	2,86	3,45	3,88	4,52	5,24	6,32	7,79	10,12	13,84
		HP/HA	All	2,25	2,85	3,42	3,86	4,47	5,17	6,22	7,83	10,39	14,03
Water flow rate	l/h	HP/HA	All	1406	1740	2113	2476	2727	3181	3597	4772	5971	7346
Total Pressure drop	kPa	H	All	19,00	16,00	18,00	17,00	21,00	26,00	34,00	49,00	30,00	62,00
Available pump head	kPa	HP/HA	All	57,50	58,79	53,54	92,80	88,35	79,25	69,77	81,15	143,90	116,78
ENERGY EFFICIENCY													
EER	W/W	H	All	2,51	2,80	2,91	3,03	3,04	2,89	2,90	3,04	2,99	2,73
		HP/HA	All	2,51	2,82	2,94	3,06	3,08	2,94	2,96	3,08	2,99	2,75
COP	W/W	H	All	3,53	3,42	3,63	3,72	3,53	3,55	3,33	3,59	3,45	3,18
		HP/HA	All	3,48	3,40	3,62	3,71	3,52	3,56	3,35	3,50	3,29	3,07
ESEER	W/W	H	All	2,92	3,29	3,25	3,41	3,42	3,25	3,27	4,54	4,42	4,21
		HP/HA	All	2,91	3,31	3,29	3,44	3,47	3,31	3,38	4,55	4,45	4,21
ELECTRICAL DATA													
Total current input (cooling)	A	H	230V/1/50Hz	12,7	15,4	16	-	-	-	-	-	-	-
			400V/3N/50Hz	5,50	6,30	6,70	7,68	8,38	9,77	13,42	14,34	21,25	26,61
		HP/HA	230V/1/50Hz	13,48	16,20	16,81	-	-	-	-	-	-	-
			400V/3N/50Hz	6,28	7,10	7,51	9,02	9,75	11,16	14,87	15,43	23,00	28,51
Total current input (heating)	A	H	230V/1/50Hz	11,8	14,3	15,66	-	-	-	-	-	-	-
			400V/3N/50Hz	5,50	6,20	6,50	7,64	8,18	9,34	12,71	14,34	19,45	26,49
		HP/HA	230V/1/50Hz	12,59	15,11	16,49	-	-	-	-	-	-	-
			400V/3N/50Hz	6,29	7,01	7,33	9,02	9,58	10,78	14,19	15,50	21,29	28,53
Maximum current (FLA)	A	H	230V/1/50Hz	18,80	23,70	24,00	-	-	-	-	-	-	-
			400V/3N/50Hz	11,01	11,96	11,92	13,50	14,68	15,15	20,38	27,00	30,30	40,76
		HP/HA	230V/1/50Hz	19,77	24,67	24,97	-	-	-	-	-	-	-
			400V/3N/50Hz	11,98	12,93	12,89	15,45	16,63	17,10	22,33	28,96	33,38	43,84
Staring current (LRA)	A	H	230V/1/50Hz	86,10	95,51	96,14	-	-	-	-	-	-	-
			400V/3N/50Hz	44,60	44,60	57,18	64,18	74,18	94,18	105,18	77,68	109,33	125,56
		HP/HA	230V/1/50Hz	87,07	96,48	97,11	-	-	-	-	-	-	-
			400V/3N/50Hz	45,57	45,57	58,15	66,13	76,13	96,13	107,13	79,64	112,41	128,64
Model "L" LOW NOISE													
Units	Version	Power supply	025	030	040	050	070	080	090	100	150	200	
Cooling capacity	kW	L	400V/3N/50Hz	5,65	6,90	8,53	12,14	15,63	17,57	18,54	24,09	31,56	37,27
		LP/LA	400V/3N/50Hz	5,70	6,97	8,62	12,29	15,82	17,78	18,75	24,60	32,35	38,20
Total power input	kW	L	400V/3N/50Hz	2,13	2,60	3,51	4,21	5,42	6,55	7,26	9,46	11,08	14,11
		LP/LA	400V/3N/50Hz	2,17	2,62	3,51	4,21	5,37	6,49	7,20	9,53	11,29	14,26
Water flow rate	l/h	All	All	979	1197	1479	2104	2707	3043	3208	4175	5473	6472
Total Pressure drop	kPa	L	All	18,23	24,76	23,57	25,16	26,64	27,60	24,46	38,49	48,96	66,38
Available pump head	kPa	LP/LA	All	59,40	50,36	51,88	81,94	77,50	74,65	77,20	91,23	137,40	129,38
ENERGY EFFICIENCY													
EER	W/W	L	400V/3N/50Hz	2,65	2,66	2,43	2,88	2,89	2,68	2,55	2,55	2,85	2,64
		LP/LA	400V/3N/50Hz	2,63	2,66	2,46	2,92	2,94	2,74	2,61	2,58	2,87	2,68
ESEER	W/W	L	400V/3N/50Hz	3,13	3,16	2,89	3,48	3,43	3,13	3,00	3,89	4,31	4,14
		LP/LA	400V/3N/50Hz	3,11	3,17	2,92	3,53	3,49	3,18	3,06	3,91	4,34	4,15
ELECTRICAL DATA													
Total current input	A	L	230V/1/50Hz	9,93	12,79	16,83	-	-	-	-	-	-	-
			400V/3N/50Hz	4,31	4,70	6,90	8,97	11,27	12,64	13,64	18,54	20,20	26,10
		LP/LA	230V/1/50Hz	10,70	13,57	17,63	-	-	-	-	-	-	-
			400V/3N/50Hz	5,08	5,48	7,70	10,31	12,67	14,07	15,09	19,64	21,96	28,00
Maximum current (FLA)	A	L	230V/1/50Hz	21,6	24,6	24,7	-	-	-	-	-	-	-
			400V/3N/50Hz	11,1	11,6	12,6	13,68	15,38	16,98	20,38	27,36	30,76	40,76
		LP/LA	230V/1/50Hz	22,57	25,57	25,67	-	-	-	-	-	-	-
			400V/3N/50Hz	12,07	12,57	13,57	15,63	17,33	18,93	22,33	29,32	33,84	43,84
Staring current (LRA)	A	L	230V/1/50Hz	66,6	87,6	117,6	-	-	-	-	-	-	-
			400V/3N/50Hz	37,6	40,6	71,6	77,18	77,18	77,18	105,18	90,86	92,56	125,56
		LP/LA	230V/1/50Hz	67,57	88,57	118,57	-	-	-	-	-	-	-
			400V/3N/50Hz	38,57	41,57	72,57	79,13	79,13	79,13	107,13	92,82	95,64	128,64

- Data in accordance with UNI EN 14511-2011
- All data refers to nominal available fan static pressure

COOLING

Evaporator water outlet temperature
Evaporator water inlet temperature
External air temperature

Technical data

GENERAL DATA	Units	Version	Power supply	025	030	040	050	070	080	090	100	150	200
SCROLL COMPRESSOR													
Quantity / circuits	n°/n°	All	All	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	2 / 1	2 / 1	2 / 1
PLATE HEAT EXCHANGER													
Quantity	n°	All	All	1	1	1	1	1	1	1	1	1	1
Hydraulic connections (victaulic)	Ø	All	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
PLUG FAN - EC INVERTER MOTOR													
Quantity	n°			1	1	1	1	1	1	1	2	2	2
Air flow rate	m³/h	°	All	4000	4000	4000	6500	6500	6500	7500	10000	12000	12000
		H	All	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
		L	All	3000	3000	3000	4000	4000	5000	5000	6000	8500	8500
Power input	kW	°	All	0,34	0,34	0,34	0,62	0,62	0,62	0,83	0,95	1,76	1,76
		H	All	0,34	0,34	0,62	0,62	0,62	0,62	0,83	0,95	1,76	2,72
		L	All	0,16	0,16	0,16	0,24	0,24	0,36	0,36	0,33	0,83	0,83
Nominal available fan static pressure	Pa	All	All	50	50	50	80	80	80	80	80	100	100
Maximum available fan static pressure	Pa	All	All	300	300	300	400	400	400	400	400	400	400
BUFFER TANK													
Capacity	l	A	All	50	100	100	100	100	100	100	100	100	100
EXPANSION TANK													
Numbe/Capacity	n°/l	P/A	All	1 / 2	1 / 5	1 / 5	1 / 5	1 / 5	1 / 5	1 / 5	1 / 8	1 / 8	1 / 8
SOUND DATA													
Radiated sound power	dB(A)	°	All	78,3	78,3	78,3	73,0	73,0	73,0	75,7	74,4	78,7	78,7
		H	All	78,3	78,3	73,0	73,0	73,0	73,0	75,7	74,4	78,7	80,4
		L	All	70,6	70,6	70,6	68,9	68,9	68,9	68,9	65,6	71,7	71,7
Radiated sound pressure	dB(A)	°	All	46,3	46,3	46,3	41,0	41,0	41,0	43,7	42,4	46,7	46,7
		H	All	46,3	46,3	41,0	41,0	41,0	41,0	43,7	42,4	46,7	48,4
		L	All	38,6	38,6	38,6	36,9	36,9	36,9	36,9	33,6	39,7	39,7
Discharge sound power	dB(A)	°	All	78,3	78,3	78,3	77,9	77,9	77,9	80,9	78,0	83,4	83,4
		H	All	78,3	78,3	77,9	77,9	77,9	77,9	80,9	78,0	83,4	85,1
		L	All	70,7	70,7	70,7	67,8	67,8	67,8	67,8	63,1	72,6	72,6
Discharge sound pressure	dB(A)	°	All	46,3	46,3	46,3	45,9	45,9	45,9	48,9	46,5	51,9	51,9
		H	All	46,3	46,3	45,9	45,9	45,9	45,9	48,9	46,5	51,9	53,6
		L	All	38,7	38,7	38,7	35,8	35,8	35,8	35,8	31,6	41,1	41,1

- Data in accordance with UNI EN 14511-2011

- All data refers to nominal available fan static pressure

COOLING

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

SOUND POWER

Sound power measured with intensity method in accordance with UNI EN ISO 9614-1, as required for Eurovent certification.

HEATING

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

SOUND PRESSURE

Sound pressure measured in free field over a reflective plane at a distance of 10m and directivity factor of 2. In accordance with ISO 3744 standard. Power supply 400V.

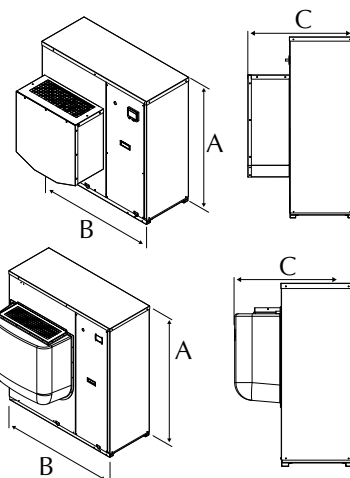
Dimensional data (mm)

DIMENSIONS - WEIGHTS without packaging - "H" COOLING ONLY / "L" LOW NOISE

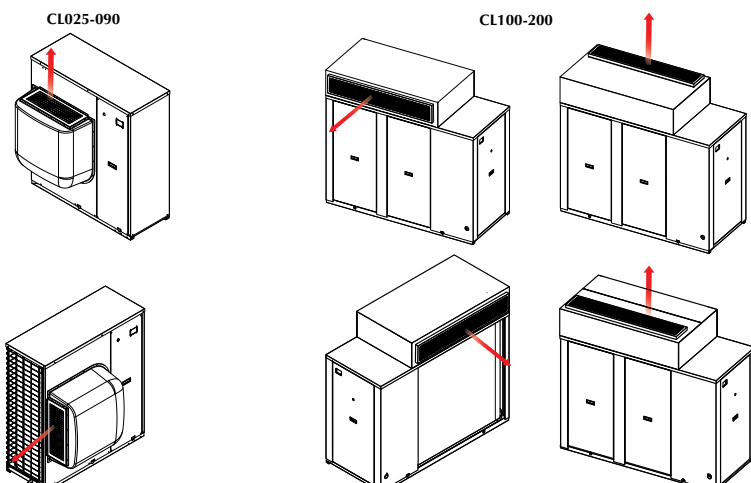
Version	Units	025	030	040	050	070	080	090	100	150	200
Height (A)	All mm	1028	1281	1281	1281	1281	1281	1281	1674	1674	1674
Width (B)	° - P mm	1005	1006	1006	1160	1160	1160	1160	1897	1897	1897
Depth (C)	All mm	1366	1458	1458	1610	1610	1610	1610	1897	1897	1897
Weight empty	° kg	127	160	160	208	210	210	212	469	471	475
	A kg	133	166	166	217	225	225	221	482	487	492
	A kg	157	201	201	252	260	260	256	532	537	542

DIMENSIONS - WEIGHTS without packaging - "H" HEAT PUMP

Version	Units	025	030	040	050	070	080	090	100	150	200
Height (A)	Tutte mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
Width (B)	H - HP mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
Depth (C)	HA mm	1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
Weight empty	Tutte kg	142	142	229	229	240	240	234	504	527	515
	HP kg	148	148	239	239	250	250	243	517	543	531
	HA kg	172	172	274	274	284	284	279	567	593	581



Discharge hood possible configurations (site modified)



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com



- **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

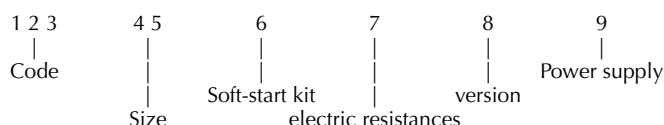
Mod. SRA	10M	10T	14M	14T	19T
VT	15	15	15	15	15
MODU-485A	✓	✓	✓	✓	✓
AERWEB300	✓	✓	✓	✓	✓
PR3	✓	✓	✓	✓	✓
S300S	✓	✓	✓	✓	✓
S400S - S500S	✓	✓	✓	✓	✓
S200I - S300I - S400I - S500I	✓	✓	✓	✓	✓

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:



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:

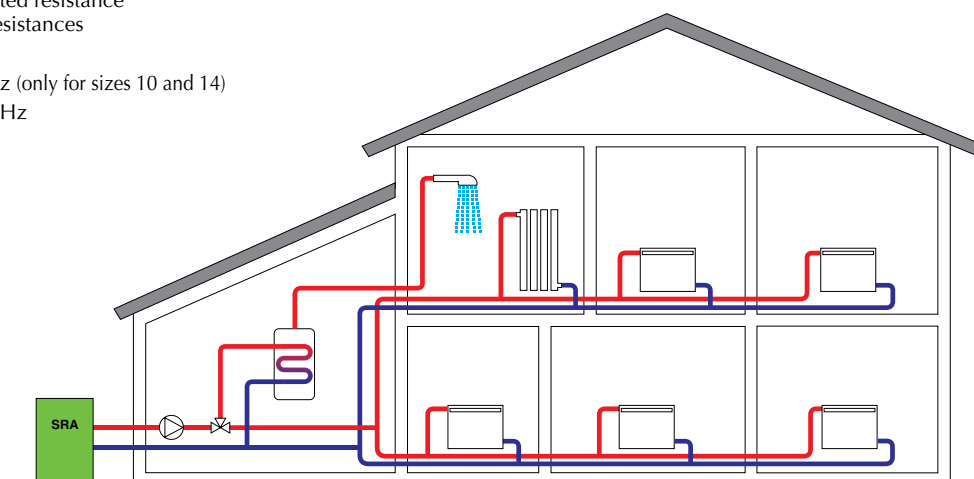
° - Without integrated resistance

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

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	m ³ /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.

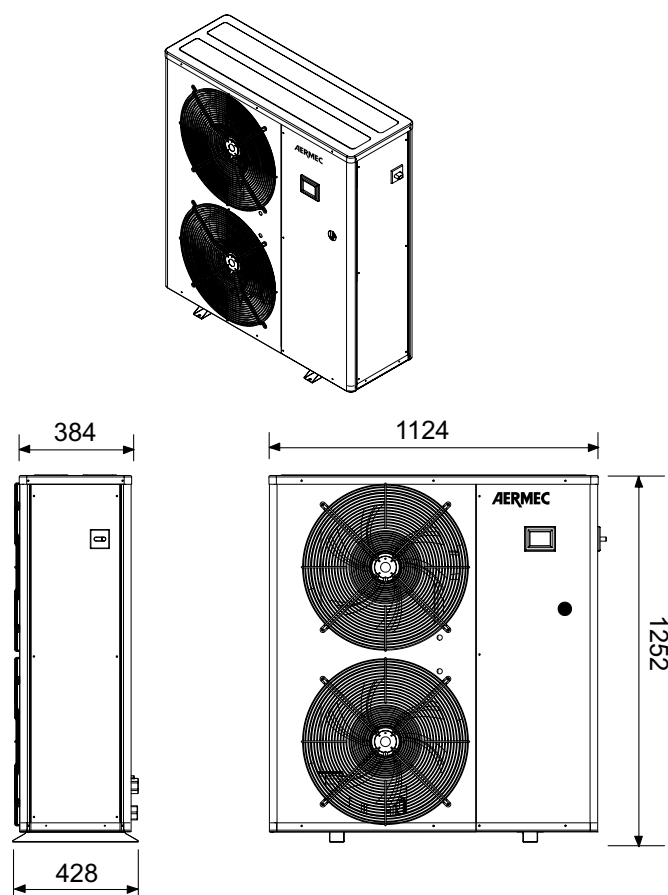
Sound power

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

R134a



- **AIR COOLED HEAT PUMPS FOR HOT WATER PRODUCTION UP TO 60°C (UP TO 70°C WITH AUXILIARY ELECTRIC HEATER)**
- **APPLICATION RANGE: IN HEAT PUMP WITH AIR INTAKE FROM 8°C TO 35°C (EXTENDED FROM -15°C TO 45°C WITH THE AID OF THE AUXILIARY ELECTRIC HEATER)**
- **VERSIONS WITH 300 LITRES STORAGE TANK, OR WITH 1 OR 2 COILS TO BE USED TOGETHER WITH OTHER HEAT SOURCES (SOLAR PANELS, BOILER, HEAT PUMP)**
- **AUTOSTART FUNCTION FOR THE UNIT TO RESTART AUTOMATICALLY**

Features

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation. Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

Main features

- Steel tank with a double vitrification layer with storage capacity of 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 300)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 300 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 300 S2)

Dimensional Data (mm)



Technical Data

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

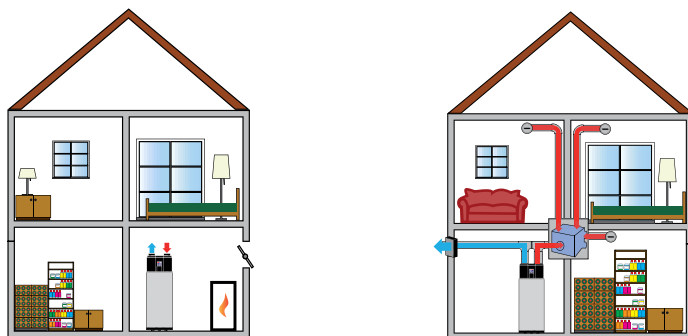
Performances in accordance with EN 255-3

Heating:

Condenser

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

Installation Examples



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

NRL
0280/0700
cooling only

R410A



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

Variable Multi Flow

VMF

Chillers
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 53÷162kW



- **COMPACT VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers

Version

- NRL_°** Compact chillers
- NRL_L** Compact Low noise version
- NRL_A** High efficiency version
- NRL_E** High efficiency low noise version

Operational limits (1)

- max. external air temperature 46°C
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A
- Flow switch as standard supply.
- Water filter.

- Low and high pressure transducers (for sizes 280-350 the TP3 accessory is available)
- Possibility of integrated hydronic module user side:
 - Buffer tank and pumps, or pumps only
 - Expansion tank
 - Safety valve
 - Pressure gauge
 - Drain valve
- Axial fans with low sound level.
- PR3 Simplified remote control panel with shielded cable up to 50 m. Performs the basic checks of the unit with alarm warnings.
- 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
- Automatic reset of alarms before tripping
- Display in 4 languages
- Alarm history
- Metal control panel with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

Specific accessories for cooling only models

° Cooling only with desuperheater ° / ° D°

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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.

Specific accessories for cooling only models with total recovery ° T° and condensing units ° C°

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.
- **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.
- **AERSET:** The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.

Mandatory accessory: AER485 or MODU-485A

- **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.
- **TP3:** High pressure transducer linked to the controller generates a pre-alarm in the case of high operating pressure (only for sizes 280-350 °C° / °T°)
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

Accessories for alla version

- **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;

- work with integrated GPRS modem; AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem
- **DCPX:** Low ambient device for cooling operation below 10°C down to -10°C. The
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **VT:** anti-vibration support, to be fitted below the sheet metal base of the unit.

Accessories factory fitted only

- **DRE:** Current soft starter device (about 26% for two-circuit-units, 22% for three-circuit-units) **Available only with power supply 400V/3N.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe

Compatibility of accessories

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
Specific accessories for cooling only models ^{110H} Cooling only with desuperheater ¹¹⁰ / D¹¹										
AER485P1		•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•
DCPX	°	-	-	-	-	64	64	64	64	64
	L	58	58	58	58	std	std	std	std	std
	A	-	-	-	-	64	64	64	64	65
	E	58	58	59	59	std	std	std	std	std
DCPX High static pressure (M)	°	-	-	-	-	64	64	64	64	64
	L	63	63	63	63	std	std	std	std	std
	A	-	-	-	-	64	64	64	64	65
	E	63	63	63	63	std	std	std	std	std
Specific accessories for cooling only models with total recovery ¹¹⁰ T¹¹ and condensing units "C"										
AER485	°	•	•	•	•	•	•	•	•	•
PGS		•	•	•	•	•	•	•	•	•
PR3		std	std	std	std	std	std	std	std	std
TP3	Alls	•	•	•	•	std	std	std	std	std
AERSET		•	•	•	•	•	•	•	•	•
DUALCHILLER		•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•
DCPX	(2) °	-	-	-	-	64	64	64	64	64
	(2) L	56	56	56	56	std	std	std	std	std
	(2) A	-	-	-	-	64	64	64	64	64
	(2) E	56	56	57	57	std	std	std	std	std
DCPX High static pressure (M)	(2) °	-	-	-	-	64	64	64	64	64
	(2) L	60	60	60	61	std	std	std	std	std
	(2) A	-	-	-	-	64	64	64	64	65
	(2) E	61	61	61	61	std	std	std	std	std
Accessories for alla version										
AERWEB300	Alls	•	•	•	•	•	•	•	•	•
GP	(1) ° - L	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
	(1) A - E	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)
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
Accessories factory fitted only										
DRE	(3) Alls	281	301	331	351	501	551	601	651	701
RIF	Alls	50	50	50	51	52	52	53	53	53
PRM1	Alls	•	•	•	•	•	•	•	•	•

(1) (x2)(x3) the number in brackets indicates the quantity to order

(2) DCPX Contains accessory TP3

(3) Available only with power supply 400V/3N/50Hz

Unit Configurator

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

Field	Code	13	Fans
1,2,3	NRL		° Standard
4,5,6,7	Size	M	High static pressure ⁽⁷⁾
	0280-0300-0330-0350-0500-0550-0600-0650-0700 ⁽⁴⁾	J	Inverter ⁽⁸⁾
8	Expansion valve	14	Power supply
	° Standard (leaving water temperature down to 4°C)		° 400V/3/50Hz with circuit breakers
Y	Low temperature (Low leaving liquid from 0°C down to -6°C) ⁽⁵⁾		1 220V/3/50Hz with circuit breakers
X	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures	15-16	Hydronic kit
9	Model		00 Without hydronic kit
	° Chillers		01 n°1 low head pump and buffer tank
C	Condensing unit ⁽⁶⁾		02 n°2 low head pump and buffer tank
10	Heat recovery		03 n°1 high head pump and buffer tank
	° Without recovery		04 n°2 high head pump and buffer tank
D	With Desuperheater		05 n°1 low head pump and buffer tank (with holes for immersion heaters) ⁽⁹⁾
T	With Total Recovery		06 n°2 low head pump and buffer tank (with holes for immersion heaters) ⁽⁹⁾
11	Versione		07 n°1 low high pump and buffer tank (with holes for immersion heaters) ⁽⁹⁾
	° Compact		08 n°2 low high pump and buffer tank (with holes for immersion heaters) ⁽⁹⁾
L	Compact low noise		09 double hydraulic circuit
A	High efficiency		10 double hydraulic circuit with immersion heater
E	High efficiency in low noise operation		P1 n°1 low head pump
12	Coil		P2 n°2 low head pump
	° In aluminium		P3 n°1 high head pump
R	In copper		P4 n°2 high head pump
S	In tinned copper		
V	In painted aluminium-copper (epoxy paint)		

(4) The size 0280-0300-0330-0350 only available in low noise version "E"

(5) options D - T - C are not compatible with option Y

(6) the condensing unit is not available with hydronic kit and options "D/T"

(7) Only size 0280÷0700

(8) Only size 0500÷0700

(9) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps.

Technical Data

Chillers			0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	°	kW	-	-	-	-	96	102	125	136	155
	L	kW	53	63	68	80	87	92	112	126	143
	A	kW	-	-	-	-	97	103	128	142	162
	E	kW	57	65	74	83	90	95	116	128	149
Total power input	°	kW	-	-	-	-	35,39	38,86	46,70	54,72	61,02
	L	kW	20,68	23,00	26,57	28,94	38,98	43,04	51,54	58,30	65,67
	A	kW	-	-	-	-	30,72	34,79	40,83	45,44	53,29
	E	kW	17,16	19,76	22,17	25,57	33,54	37,19	44,89	52,28	57,45
EER	°	W/W	-	-	-	-	2,72	2,63	2,68	2,49	2,54
	L	W/W	2,54	2,72	2,54	2,78	2,22	2,15	2,18	2,17	2,18
	A	W/W	-	-	-	-	3,17	2,97	3,14	3,13	3,04
	E	W/W	3,30	3,27	3,32	3,23	2,67	2,54	2,59	2,45	2,60
ESEER	°	W/W	-	-	-	-	3,28	3,17	3,66	3,42	3,48
	L	W/W	3,01	3,22	3,01	3,29	3,27	3,17	3,66	3,42	3,48
	A	W/W	-	-	-	-	3,68	3,45	4,07	4,04	3,92
	E	W/W	3,75	3,72	3,80	3,68	3,65	3,43	3,97	3,95	3,83
Water flow rate	°	l/h	-	-	-	-	16680	17720	21670	23560	26830
	L	l/h	9120	10840	11700	13930	14960	16000	19440	21840	24770
	A	l/h	-	-	-	-	16860	17890	22190	24600	28040
	E	l/h	9800	11180	12730	14280	15480	16340	20120	22190	25800
Total pressure drop	°	kPa	-	-	-	-	53	59	64	61	74
	L	kPa	51	46	54	55	43	48	51	52	63
	A	kPa	-	-	-	-	44	49	54	60	68
	E	kPa	43	39	35	44	37	41	44	49	58

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Condensing unit			0280		0300		0330		0350		0500		0550		0600		0650		0700	
			C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
Cooling capacity	°	kW	-	-	-	-	-	-	-	-	57,0/43,0	65,0/41,0	65,0/65,0	70,5/70,5	80,5/80,5	80,5/80,5	80,5/80,5	80,5/80,5	80,5/80,5	80,5/80,5
	L	kW	27,5/27,5	37,0/28,0	35,0/35,0	41,5/41,5	51,0/39,0	58,0/38,0	58,0/58,0	65,5/65,5	74,0/74,0	74,0/74,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0
	A	kW	-	-	-	-	-	-	-	-	57,5/43,5	65,5/41,5	66,5/66,5	73,5/73,5	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0	84,0/84,0
	E	kW	29,5/29,5	38,0/29,0	38,0/38,0	42,5/42,5	53,0/40,0	60,0/38,0	60,5/60,5	66,5/66,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5	77,5/77,5
Total power input	°	kW	-	-	-	-	-	-	-	-	35,11	38,54	46,31	54,39	60,54	60,54	60,54	60,54	60,54	60,54
	L	kW	20,48	22,80	26,33	28,66	38,85	42,88	51,36	58,12	65,38	65,38	65,38	65,38	65,38	65,38	65,38	65,38	65,38	65,38
	A	kW	-	-	-	-	-	-	-	-	30,47	34,51	40,46	45,00	52,77	52,77	52,77	52,77	52,77	52,77
	E	kW	16,95	19,57	22,00	25,33	33,40	37,03	44,70	52,06	57,11	57,11	57,11	57,11	57,11	57,11	57,11	57,11	57,11	57,11
EER	°	W/W	-	-	-	-	-	-	-	-	2,85	2,75	2,80	2,59	2,65	2,65	2,65	2,65	2,65	2,65
	L	W/W	2,67	2,85	2,66	2,91	2,31	2,23	2,27	2,25	2,27	2,27	2,27	2,27	2,27	2,27	2,27	2,27	2,27	2,27
	A	W/W	-	-	-	-	-	-	-	-	3,31	3,10	3,28	3,27	3,18	3,18	3,18	3,18	3,18	3,18
	E	W/W	3,46	3,42	3,47	3,38	2,78	2,64	2,70	2,55	2,71	2,71	2,71	2,71	2,71	2,71	2,71	2,71	2,71	2,71

Connections

Gas line	Ø	28/28	28/28	28/28	28/28	35/28	35/28	35/35	35/35	42/42
liquid line	Ø	15,88/15,88	15,88/15,88	15,88/15,88	18/18	18/18	18/18	22/22	22/22	28/28

Cooling:

Evaporating temperature 5°C; External air temperature 35°C

GENERAL DATA			0280	0300	0330	0350	0500	0550	0600	0650	0700
Electrical data											
Total input current	(1)	°	A	-	-	-	-	63	67	81	100
	(1)	L	A	36	40	44	51	70	75	90	111
	(1)	A	A	-	-	-	-	55	60	71	90
	(1)	E	A	30	34	37	45	60	64	78	97
Maximum current (FLA)			A	46	53	58	63	76	81	100	122
Starting current (LRA)			A	155	184	190	200	214	220	232	261
Compressors											
Compressors	type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	n°	2	2	2	2	3	3	4	4	4	4
Circuits	n°	2	2	2	2	2	2	2	2	2	2
Capacity control	%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/25/50/100	0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
System side exchanger											
Exchanger	type	piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre
	n°	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½

(1) The electrical data of the versions without hydronic module integrated

Technical Data

GENERAL DATA			0280	0300	0330	0350	0500	0550	0600	0650	0700
Fans standard											
fans	type		axial	axial	axial	axial	axial	axial	axial	axial	axial
	°	n°	-	-	-	-	2	2	2	2	2
	L	n°	4	4	4	6	2	2	2	2	2
	A	n°	-	-	-	-	2	2	2	2	3
	E	n°	6	6	8	8	2	2	2	2	3
Air flow rate cooling mode	°	m³/h	-	-	-	-	34600	34600	34600	34600	33600
	L	m³/h	14200	14200	14200	20200	28400	28700	27700	29400	28600
	A	m³/h	-	-	-	-	34100	34100	32600	32600	50000
	E	m³/h	22000	22000	27000	27000	21100	22200	21800	22800	32500
Hydronic kit											
Storage tank			l	300	300	300	300	500	500	500	500
Useful static pressure (01-02-P1-P2)	°	kPa	-	-	-	-	123	111	91	83	91
	L	kPa	104	106	96	89	141	130	114	101	115
	A	kPa	-	-	-	-	121	109	85	71	75
	E	kPa	94	102	82	85	135	125	107	97	103
	°	kPa	-	-	-	-	161	150	184	178	146
Useful static pressure (03-04-P3-P4)	L	kPa	143	144	135	129	177	168	206	194	169
	A	kPa	-	-	-	-	159	148	179	166	132
	E	kPa	133	141	122	124	173	164	200	191	157
Sound data											
Sound pressure	°	dB(A)	-	-	-	-	50	50	50	51	51
	L	dB(A)	41	41	42	43	45	45	45	46	46
	A	dB(A)	-	-	-	-	50	50	50	51	53
	E	dB(A)	42	42	43	44	42	42	42	43	45
	°	dB(A)	-	-	-	-	82	82	82	83	83
Sound power	L	dB(A)	73	73	74	75	77	77	77	78	78
	A	dB(A)	-	-	-	-	82	82	82	83	85
	E	dB(A)	74	74	75	76	74	74	74	75	77
Power supply			V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Sound power

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

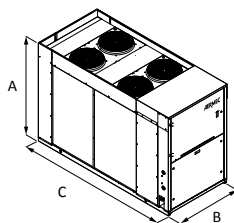
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

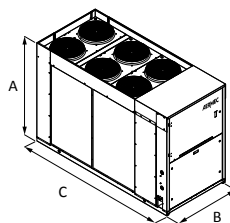
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

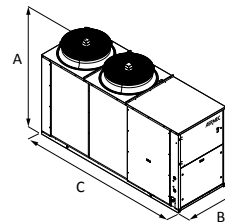
NRL 0280-0300-0330 L



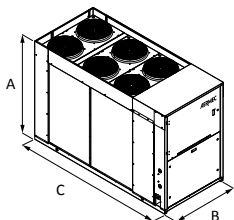
NRL 0350 L



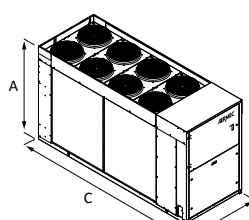
NRL 0500-0550-0600-0650-0700 °/L



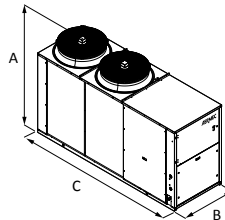
NRL 0280-0300 E



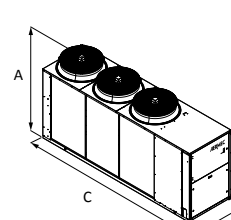
NRL 0330-0350 E



NRL 0500-0550-0600-0650 A/E



NRL 0700 A/E



Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
Height (mm)	A	All	1606	1606	1606	1875	1875	1875	1875	1875
Width (mm)	B	All	1100	1100	1100	1100	1100	1100	1100	1100
Length (mm)	° / L / C	2450	2450	2450	2450	3010	3010	3010	3010	3010
	A / E / C	2450	2950	2950	2950	3010	3010	3010	3010	4010
Weight empty (kg)	° / L	675	684	688	704	868	872	968	983	1091
	A / E	686	751	761	767	955	959	1142	1155	1323

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel 0442633111 - Fax 044293730
www.aermec.com

NRL
0280/0700
heat pumps

Reversible heat pumps
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 51÷149kW
Heating capacity 58÷172kW

R410A



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

Variable Multi Flow[®]
VMF



- **COMPACT VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Reversible heat pumps
- Version**
 - NRL_H** Compact heat pumps
 - NRL_HL** Compact heat pumps Low noise version
 - NRL_HA** High efficiency version
 - NRL_HE** High efficiency version Low noise version
- **Operational limits (1)**
 - max. external air temperature 46°C in cooling mode
 - Maximum leaving water temperature 55°C in heating mode
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A
- Flow switch as standard supply.
- Water filter.
- Low and high pressure transducers
- Possibility of integrated hydronic module user side:
 - Buffer tank and pumps, or pumps only
 - Expansion tank
 - Safety valve
 - Pressure gauge
 - Drain valve
- Axial fans with low sound level.
- PR3 Simplified remote control panel with shielded cable up to 50 m. Performs the basic checks of the unit with alarm warnings.
- 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
- Automatic reset of alarms before tripping
- Display in 4 languages
- Alarm history
- Metal control panel with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485:** 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
- **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.
- **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.
- **AERSET:** The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory: AER485 or MODU-485A
- **DCPX:** Low ambient device for cooling operation below 10°C down to -10°C.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **VT:** anti-vibration support, to be fitted below the sheet metal base of the unit.
- **TP3:** High pressure transducer linked to the controller generates a pre-alarm in the case of high operating pressure (only for sizes 280-350).

Accessories factory fitted only

- **DRE:** Current soft starter device (about 26% for two-circuit-units, 22% for three-circuit-units)
Available only with power supply 400V/3N.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

Compatibility of accessories

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485	All	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•
PGS	All	•	•	•	•	•	•	•	•	•
AERSET	All	•	•	•	•	•	•	•	•	•
DUALCHILLER	All	•	•	•	•	•	•	•	•	•
MULTICHILLER	All	•	•	•	•	•	•	•	•	•
GP	(1) H-HL	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
	HA-HE	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)
DCPX	(2) H	-	-	-	-	64	64	64	64	64
	(2) HL	58	58	58	58	di serie	di serie	di serie	di serie	di serie
	(2) HA	-	-	-	-	64	64	64	64	65
	(2) HE	58	58	59	59	di serie	di serie	di serie	di serie	di serie
DCPX Fans High static pressure (M)	(2) H	-	-	-	-	-	-	-	-	-
	(2) HL	63	63	63	63	-	-	-	-	-
	(2) HA	-	-	-	-	-	-	-	-	-
	(2) HE	63	63	63	63	-	-	-	-	-
VT (00-P1-P2-P3-P4)	H-HL	17	17	17	17	13	13	13	13	13
	HA-HE	17	17	17	17	13	13	13	13	22
VT (01-02-03-04-05-06-07-08-09-10)	H-HL	13	13	13	13	10	10	10	10	10
	HA-HE	13	13	13	13	10	10	10	10	22
PRM1	All	•	•	•	•	•	•	•	•	•
Accessories factory fitted only										
DRE	(3) All	281	301	331	351	501	551	601	651	701
RIF	All	50	50	50	51	52	52	53	53	53
PRM1	All	•	•	•	•	•	•	•	•	•

(1) (x2)(x3) the number in brackets indicates the quantity to order

(2) DCPX Contains accessory TP3

(3) Available only with power supply 400V/3N/50Hz

Unit Configurator

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

Field	Code
1,2,3	NRL
4,5,6,7	Size
	0280-0300-0330-0350-0500-0550-0600-0650-0700 (4)
8	Campo d'impiego
	° Standard (leaving water temperature down to 4°C)
	X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
9	Model
	H Heat pumps
10	Heat recovery
	° Without recovery
	D With Desuperheater
11	Version
	° Compact
	L Compact low noise
	A High efficiency
	E High efficiency in low noise operation
12	Coil
	° In aluminium
	R In copper
	S In tinned copper
	V In painted aluminium-copper (epoxy paint)
13	Fans
	° Standard
	M High static pressure (6)
	J Inverter (7)

14	Alimentazione
	° 400V/3/50Hz with circuit breakers
	1 220V/3/50Hz with circuit breakers
15-16	Hydronic kit
	00 Without hydronic kit
	01 n°1 low head pump and buffer tank
	02 n°2 low head pump and buffer tank
	03 n°1 high head pump and buffer tank
	04 n°2 high head pump and buffer tank
	05 n°1 low head pump and buffer tank (with holes for immersion heaters) (8)
	06 n°2 low head pump and buffer tank (with holes for immersion heaters) (8)
	07 n°1 low high pump and buffer tank (with holes for immersion heaters) (8)
	08 n°2 low high pump and buffer tank (with holes for immersion heaters) (8)
	08 double hydraulic circuit
	09 double hydraulic circuit with immersion heater
	P1 n°1 low head pump
	P2 n°2 low head pump
	P3 n°1 high head pump
	P4 n°2 high head pump

(4) The size 0280-0300-0330-0350 only available in low noise version "HL/HE"

(5) options D - C are not compatible with option X

(6) Only size 0280÷0700

(7) Only size 0500÷0700

(8) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps.

Technical Data

Mod. NRL Heat pumps			0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	H	kW	-	-	-	-	89	94	114	133	144
	HL	kW	51	61	66	73	83	89	109	123	139
	HA	kW	-	-	-	-	94	100	121	137	149
	HE	kW	53	62	69	77	90	95	114	127	142
Total power input	H	kW	-	-	-	-	36,91	41,06	49,76	54,08	63,78
	HL	kW	20,45	22,87	26,64	31,44	40,13	43,40	52,41	58,97	66,43
	HA	kW	-	-	-	-	30,82	34,06	41,53	48,45	52,05
	HE	kW	18,10	20,27	23,27	26,92	33,48	36,81	45,46	53,26	58,49
EER	H	W/W	-	-	-	-	2,42	2,30	2,30	2,46	2,26
	HL	W/W	2,48	2,65	2,46	2,31	2,06	2,06	2,09	2,09	2,10
	HA	W/W	-	-	-	-	3,04	2,92	2,92	2,83	2,87
	HE	W/W	2,92	3,04	2,95	2,85	2,68	2,57	2,50	2,39	2,43
ESEER	H		-	-	-	-	3,30	3,19	3,69	3,42	3,50
	HL		3,02	3,23	3,02	3,31	3,28	3,18	3,66	3,42	3,48
	HA		-	-	-	-	3,71	3,48	4,13	4,09	3,98
	HE		3,85	3,77	3,85	3,73	3,67	3,45	4,03	3,99	3,87
Water flow rate	H	l/h	-	-	-	-	15480	16340	19780	23048	24940
	HL	l/h	8772	10492	11352	12556	14276	15480	18920	21328	24080
	HA	l/h	-	-	-	-	16168	17200	20984	23736	25800
	HE	l/h	9116	10664	11868	13244	15480	16340	19608	22016	24596
Total pressure drop	H	kPa	-	-	-	-	46	50	53	58	64
	HL	kPa	47	43	51	45	39	45	49	50	60
	HA	kPa	-	-	-	-	33	36	36	43	49
	HE	kPa	20	27	23	27	30	32	31	37	45
Heating capacity	H/HL	kW	58	68	76	83	100	107	130	151	166
	HA/HE	kW	59	69	76	86	104	111	136	153	172
Total power input	H/HL	W/W	19,06	21,77	24,87	28,35	33,81	36,70	43,94	48,98	56,28
	HA/HE	W/W	17,55	20,64	22,82	26,20	31,71	34,37	40,75	45,69	53,08
COP	H/HL	l/h	3,07	3,15	3,04	2,91	2,89	2,83	2,89	2,82	2,79
	HA/HE	l/h	3,38	3,36	3,34	3,30	3,26	3,22	3,33	3,34	3,24
Water flow rate	H/HL	kPa	9976	11696	12900	14104	17028	18232	22188	25800	28380
	HA/HE	kPa	10148	11868	13072	14792	17716	18920	23220	26144	29412
Total pressure drop	H/HL	kPa	61	54	66	56	55	62	67	73	83
	HA/HE	kPa	25	34	28	34	40	44	44	52	64

Cooling (14511:2011)
Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating (14511:2011)
Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

GENERAL DATA			280	300	330	350	500	550	600	650	700
Electrical data											
Total input current cooling mode	(1)	H	A	-	-	-	-	63	67	81	100
	(1)	HL	A	36	40	44	51	70	75	90	111
	(1)	HA	A	-	-	-	-	55	60	71	90
Total input current heating mode	(1)	HE	A	30	34	37	45	60	64	78	97
	(1)	H	A	-	-	-	-	60	63	76	95
	(1)	HL	A	33	38	41	50				
	(1)	HA	A	-	-	-	-	55	59	72	88
Maximum current (FLA)		A	46	53	58	63	76	81	100	112	122
Starting current (LRA)		A	155	184	190	200	214	220	232	243	261
Compressors											
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	2	2	2	2	3	3	4	4	4
Circuits		n°	2	2	2	2	2	2	2	2	2
Capacity control		%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant		type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
System side exchanger											
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Fans standard											
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial
		n°	-	-	-	-	2	2	2	2	2
		HL	n°	4	6	6	6	2	2	2	2
		HA	n°	-	-	-	-	2	2	2	3
Air flow rate cooling mode		HE	n°	6	8	8	8	2	2	2	3
		H	m³/h	-	-	-	-	39400	39400	39400	37500
		HL	m³/h	14000	20000	20000	20000	28400	28700	28700	27400
		HA	m³/h	-	-	-	-	37000	37000	36500	36500
Air flow rate heating mode		HE	m³/h	20000	26000	26000	26000	20200	21100	21400	22400
		H/HL	m³/h	14000	20000	20000	20000	39400	39400	39400	37500
		HA/HE	m³/h	20000	26000	26000	26000	37000	37000	36500	36500

(1) The electrical data of the versions without hydronic module integrated

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Technical Data

GENERAL DATA				280	300	330	350	500	550	600	650	700
Hydronic kit												
Buffer tank				I	300	300	300	300	500	500	500	500
Useful static pressure (01-02-P1-P2)	(2)	H	kPa	-	-	-	-	127	116	100	86	103
	(2)	HL	kPa	105	107	97	93	131	120	104	95	108
	(2)	HA	kPa	-	-	-	-	128	117	98	81	103
	(2)	HE	kPa	104	108	94	97	135	126	113	99	117
Useful static pressure (03-04-P3-P4)	(2)	H	kPa	-	-	-	-	191	183	234	236	223
	(2)	HL	kPa	147	152	144	144	191	183	234	236	223
	(2)	HA	kPa	-	-	-	-	167	155	192	176	158
	(2)	HE	kPa	143	147	133	136	173	164	205	193	171
Sound data												
Sound pressure		H	dB(A)	-	-	-	-	50	50	50	51	51
		HL	dB(A)	41	42	42	43	45	45	45	46	46
		HA	dB(A)	-	-	-	-	50	50	50	51	53
		HE	dB(A)	42	43	43	44	42	42	42	43	45
Sound power		H	dB(A)	-	-	-	-	82	82	82	83	83
		HL	dB(A)	73	74	74	75	77	77	77	78	78
		HA	dB(A)	-	-	-	-	82	82	82	83	85
		HE	dB(A)	74	75	75	76	74	74	74	75	77
Power supply				V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Sound power

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

Sound pressure

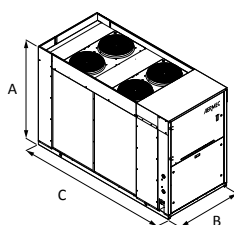
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

(2) Useful static pressure calculated in cooling mode

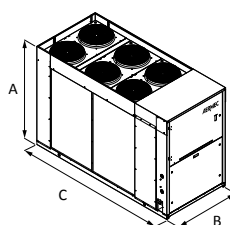
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

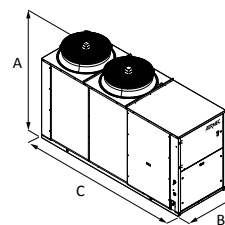
NRL 0280 HL



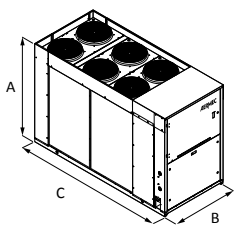
NRL 0300-0330-0350 HL



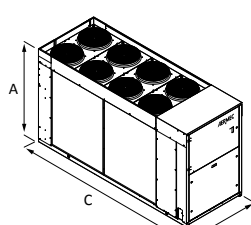
NRL 0500-0550-0600-0650-0700 H/HL



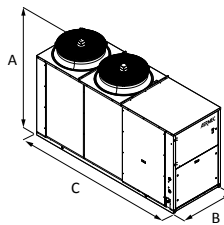
NRL 0280 HE



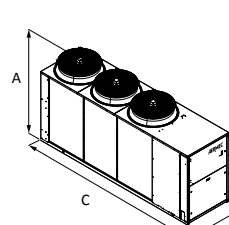
NRL 0300-0330-0350 HE



NRL 0500-0550-0600-0650 HA/HE



NRL 0700 HA/HE



Mod. NRL	U.M.	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
Height	(mm)	A	All	1606	1606	1606	1606	1875	1875	1875	1875
Width	(mm)	B	All	1100	1100	1100	1100	1100	1100	1100	1100
Length	(mm)	C	H - HL	2450	2450	2450	2450	3010	3010	3010	3010
		HA - HE	2450	2950	2950	2950	3010	3010	3010	3010	4010
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

NRL
0750/1800
cooling only

R410A



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

Air cooled chillers with axial fans
Cooling capacity 174kW÷469kW

Variable Multi Flow

VMF



- **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
 - "I" 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

- **AERSET:** The AERSET accessory allows the automatic compensation of the operating set-point of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory: AER485 or MODU-485A
- **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.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

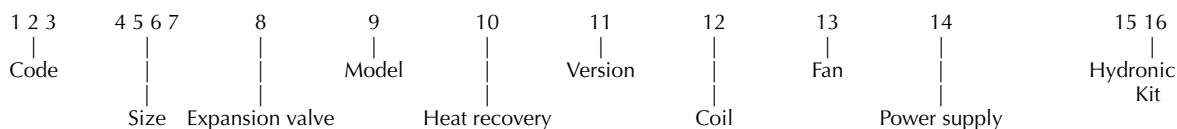
Accessory compatibility										
Mod. NRL	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800
AERSET	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AER485	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
DUALCHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGS	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
TRX1	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AVX	All	-	✓	✓	✓	✓	✓	✓	✓	✓
VT	All	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
DCPX "M" vers. con ventilatori maggioriati	E	standard	standard	di standard	standard	standard	standard	standard	standard	standard
	°	65	65	65	65	65	66	66	68	68
	L	standard	standard	di standard	standard	standard	standard	standard	standard	standard
DRE	A	65	66	66	66	68	68	68	68	68
	E	standard	standard	di standard	standard	standard	standard	standard	standard	standard
	standard	751	801	901	1001	1251	1404	1504	1655	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	92	92	93	94
	A - E	53	88	90	92	92	92	92	93	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:



Code:

NRL

Size:

0750, 0800, 0900, 1000, 1250, 1404, 1504, 1655, 1800

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
- 400V 3N~ 50Hz with circuit breakers (only NRL 0750)

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: NRL0900°0000000000

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.

Mod. NRL	U.M.	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800
Cooling capacity	(kW)	°	189	210	230	255	301	336	373	410	447
		L	173	189	209	234	270	301	334	365	392
		A	194	217	241	269	320	355	397	435	467
		E	179	202	223	249	296	327	365	407	434
Total power input	(kW)	°	70,56	79,19	93,32	105,53	122,90	143,93	163,26	176,91	189,05
		L	76,09	88,96	102,05	114,22	135,45	158,47	178,72	193,45	209,48
		A	63,32	70,23	82,41	94,55	107,85	126,14	143,91	156,06	169,22
		E	69,16	77,04	89,17	102,29	116,53	135,76	155,55	166,76	180,86
Water flow rate	(l/h)	°	32680	36292	39732	44204	52116	58136	64500	70864	77228
		L	29928	32680	36120	40420	46612	51944	57792	62952	67596
		A	33540	37496	41624	46612	55384	61404	68628	75164	80668
		E	30960	34916	38528	43000	51256	56588	63124	70348	74992
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

ENERGY INDICES

EER	(W/W)	°	2,67	2,65	2,46	2,42	2,45	2,33	2,28	2,32	2,36
		L	2,27	2,13	2,05	2,05	1,99	1,90	1,87	1,88	1,87
		A	3,06	3,09	2,92	2,85	2,97	2,81	2,76	2,79	2,76
		E	2,59	2,62	2,50	2,43	2,54	2,41	2,35	2,44	2,40
ESEER	(W/W)	°	3,63	3,96	3,76	3,75	3,71	3,55	3,46	3,57	3,64
		L	3,65	3,91	3,78	3,76	3,65	3,49	3,44	3,51	3,49
		A	3,91	4,14	4,01	3,93	4,06	3,85	3,84	3,88	3,88
		E	3,82	4,06	3,98	3,88	4,04	3,82	3,79	3,87	3,86

ELECTRICAL DATA

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	278	308	343	391
		A-E	144	173	195	217	267	284	314	349	398
Starting current (LRA)	(A)	°-L	320	345	401	426	529	612	642	677	659
		A-E	320	348	404	426	535	618	648	683	666
Type of compressors		All	Scroll								
Compressors/circuits		°-L	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2
		A-E	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	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								
Useful pump head low-head	(kPa)	°	81	100	92	91	111	102	88	109	99
		L	101	120	112	110	139	133	115	134	129
		A	74	93	81	78	92	84	69	94	87
		E	94	108	99	97	116	110	94	111	106
Useful pump head high-head	(kPa)	°	198	216	207	204	250	238	200	246	236
		L	219	237	228	225	281	272	241	270	266
		A	191	208	195	189	230	219	173	231	225
		E	211	224	214	211	255	247	209	247	244
Buffer tank capacity	(l)	All	700	700	700	700	700	700	700	700	700
Hydraulic connections "00" version	(Ø)	All	3"	3"	3"	3"	3"	4"	4"	4"	4"

(*) THE POWER SUPPLY FOR SIZE 750 IS: 400V-3N-50HZ.

**DATA DECLARED IN ACCORDANCE WITH
UNI EN 14511: 2011**

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

Mod. NRL	U.M.	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	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 on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

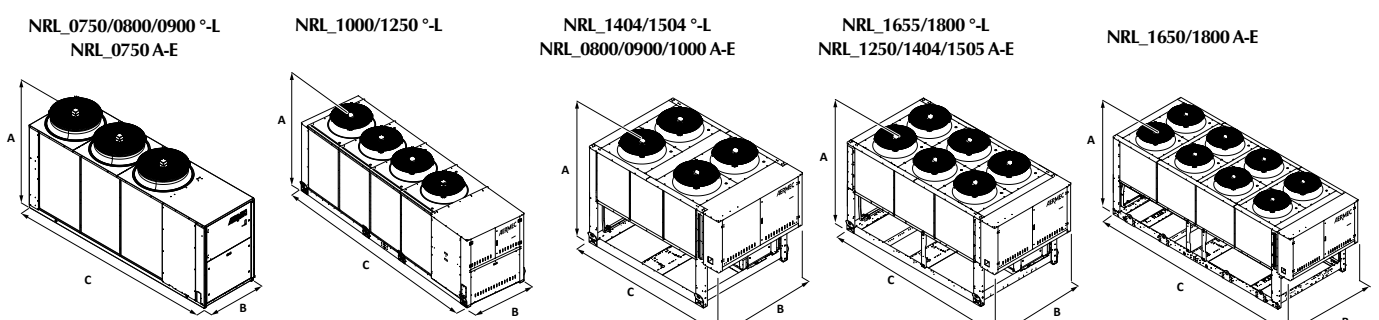
Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Technical Data " C Version "

Mod. NRL C		Vers.	0750	0800	0900	1000	1250	1404	1504	1655	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)	A	° - L	1975	1975	1975	1975	1975	2450	2450	2450
		A - E		1975	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	° - L	1500	1500	1500	1500	1500	2200	2200	2200
		A - E		1500	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	° - L	4350	4355	4355	5355	5355	4250	4250	4250
		A - E		4350	3400	3400	3400	4250	4250	5750	5750
Weight empty	(kg)	°		1382	1730	1860	2015	2135	2765	2960	3055
		L		1382	1740	1870	2025	2145	2775	2970	3065
		A		1663	2120	2265	2410	2710	2910	3125	3620
		E		1663	2135	2280	2425	2725	2925	3140	3635

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

NRL
0750/1800
heat pump

R410A



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

Reversible heat pumps
 Air/Water outdoor installation
 Axial fans and scroll compressor
 Cooling capacity 164kW÷470kW
 Heating capacity 203kW÷526kW

Variable Multi Flow®

VMF



- **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
- 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)
- Operating limits extended operation in heat pump.

Version H ° - HL

- Max water at 50 °C produced
- Max air temperature 30 °C (42 °C with acces-

- sory DCPX fan speed controller)
- Version. HA - HE**
 - Max water at 55 °C produced
 - Max air temperature 30 °C (42 °C with acces-
- sory DCPX fan speed controller)
- Cooling mode
- Version. H ° - HL**
 - Max 18 °C water produced
 - Max air temperature 42 °C
- Version. HA - HE**
 - Max 18 °C water produced
 - Max air temperature 46 °C
- Expansion valve (selected in unit configuration):
 - "0" standard thermostatic expansion valve
 - "X" electronic expansion valve, also for low fluid temperature (down to -6 °C)
- Fan type (selected in unit configurator):
 - "0" Standard
 - "I" 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
- DCPX standard on all versions silenced

Accessories

- **AERSET:** The AERSET accessory allows the automatic compensation of the operating set-point of the unit to which it is connected, based on a 0-10V MODBUSinput signal. Mandatory accessory: AER485 or MODU-485A
- **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 (about 26% with two compressors, 22% with three compressors). 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.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

Accessory Compatibility

Mod. NRL	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800
AERSET	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AER485	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
DUALCHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGS	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
TRX1	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AVX "00"	H - HL	-	701	707	713	713	722	722	733	730
	HA - HE	-	704	710	716	719	725	730	734	737
AVX "01...04"	H - HL	-	702	708	714	717	723	728	728	728
	HA - HE	-	705	711	711	720	726	731	735	738
AVX (P1-P2-P3-P4)	H - HL	-	703	709	715	718	724	729	729	732
	HA - HE	-	706	712	712	721	727	732	736	736
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	1404	1504	1655	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	92	92	93	94
	HA - HE	53	88	90	92	92	92	92	93	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			Model		Version		Fan		Hydronic Kit
	Size	Expansion valve		Heat recovery		Coil		Power supply	

Code:

NRL

Size:

0750, 0800, 0900, 1000, 1250, 1404, 1504, 1655, 1800

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)

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 (only for NRL 800 up to 1800)
- 400V 3N~ 50Hz with circuit breakers (only NRL 0750)

Hydronic kit:

- 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 are not available (only for liquid temperatures below +4°C)

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.	0750	0800	0900	1000	1250	1404	1504	1655	1800
Cooling capacity	(kW)	H	175	200	221	261	299	332	366	421	452
		HL	164	183	199	236	264	301	331	372	396
		HA	179	210	238	260	313	350	386	435	470
		HE	174	193	212	230	283	318	354	397	424
Total power input	(kW)	H	71,23	81,88	94,93	102,13	121,42	141,15	160,25	167,61	180,68
		HL	78,36	90,74	105,76	112,91	137,05	154,93	175,00	188,18	205,22
		HA	64,22	74,02	83,15	95,20	110,56	127,40	144,55	152,86	163,99
		HE	69,84	81,87	94,90	107,93	123,23	141,11	159,24	169,47	183,53
Water flow rate	(l/h)	H	30272	34572	38184	45064	51600	57276	63124	72756	78088
		HL	28380	31648	34400	40764	45580	51944	57104	64156	68284
		HA	30960	36292	41108	44892	54180	60372	66736	75164	81184
		HE	30100	33368	36636	39732	48848	54868	61060	68456	73272
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
Heating capacity	(kW)	H	203	228	257	295	342	386	429	470	505
		HA - HE	205	234	264	295	346	390	435	486	526
Total power input	(kW)	H - HL	66,77	76,19	86,33	97,55	113,05	127,67	142,85	157,13	168,23
		HA - HE	62,69/62,39	75,33	84,49	94,63	112,03	125,79	141,02	155,41	165,57
Water flow rate	(l/h)	H - HL	34572	39044	44032	50396	58480	66048	73444	80496	86516
		HA - HE	35088	40076	45236	50396	59168	66736	74476	83248	89956
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
ENERGY INDICES											
EER	(W/W)	H	2,46	2,44	2,33	2,55	2,46	2,35	2,28	2,51	2,50
		HL	2,09	2,02	1,88	2,09	1,93	1,94	1,89	1,98	1,93
		HA	2,79	2,84	2,86	2,73	2,83	2,74	2,67	2,85	2,87
		HE	2,49	2,36	2,23	2,13	2,29	2,25	2,22	2,34	2,31
ESEER	(W/W)	H	3,66	3,85	3,66	3,67	3,63	3,50	3,44	3,45	3,53
		HL	3,67	3,79	3,66	3,66	3,56	3,42	3,39	3,39	3,37
		HA	3,98	4,01	3,90	3,82	3,96	3,80	3,72	3,74	3,71
		HE	3,87	3,92	3,87	3,78	3,93	3,77	3,66	3,72	3,74
COP	(W/W)	H - HL	3,03	3,00	2,98	3,02	3,03	3,02	3,00	2,99	3,00
		HA - HE	3,28/3,29	3,11	3,13	3,11	3,09	3,10	3,08	3,13	3,17
ELECTRICAL DATA											
Supply		All	400V-3-50Hz (*)								
Total input current in cooling mode	(A)	H	122	142	166	189	208	249	286	305	319
		HL	132	153	177	200	226	269	308	328	348
		HA	113	136	158	180	196	235	273	286	304
		HE	120	145	169	192	211	251	292	306	324
Total input current in heating mode	(A)	H	113	136	156	179	193	227	261	279	290
		HL	113	136	156	179	193	227	261	279	290
		HA	113	138	157	177	197	231	265	282	293
		HE	113	138	157	177	197	231	282	282	293
Maximum current (FLA)	(A)	H - HL	144	173	195	221	265	282	312	349	398
		HA - HE	144	177	199	221	274	290	320	357	406
Starting current (LRA)	(A)	H - HL	320	348	404	430	533	616	646	683	666
		HA - HE	320	352	408	430	542	624	654	691	674
Type of compressors		All	Scroll								
Compressors/circuits	(n°)	All	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2
Type of fans		All	Axial								
Fan air flow rate	(m3/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	4	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 "00" version	(Ø)	All	3"	3"	3"	3"	3"	4"	4"	4"	4"

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

Mod. NRL	U.M.	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800
HDRONIC KIT											
Useful pump head low-head cooling mode	(kPa)	H	99	110	101	86	114	106	94	103	96
		HL	112	126	121	109	144	133	118	131	127
		HA	94	100	84	87	99	90	78	94	85
		HE	100	117	109	114	128	119	102	117	112
Useful pump head high-head cooling mode	(kPa)	H	216	226	216	199	253	243	209	239	234
		HL	229	243	237	223	286	272	245	266	264
		HA	211	216	198	200	238	225	186	231	223
		HE	217	233	225	228	269	257	222	253	249
Useful pump head low-head heating mode	(kPa)	H	75	90	73	63	83	65	57	82	73
		HL	105	116	107	91	119	101	101	112	104
		HA	71	84	66	63	78	61	52	71	60
		HE	71	84	66	63	78	61	52	71	60
Useful pump head high-head heating mode	(kPa)	H	192	205	186	173	219	197	148	219	211
		HL	187	200	177	163	204	176	137	210	200
		HA	187	199	178	173	214	193	141	209	198,86
		HE	187	199	178	173	214	193	141	209	199
Buffer tank capacity	(l)	All	700	700	700	700	700	700	700	700	700
SOUND DATA											
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
 - $\Delta t = 5$ °C.

- Heating**
- leaving water temperature 45 °C
 - external air temperature 7 °C db / 6 °C wb
 - $\Delta t = 5$ °C.

DATA DECLARED IN ACCORDANCE WITH UNI EN 14511: 2011

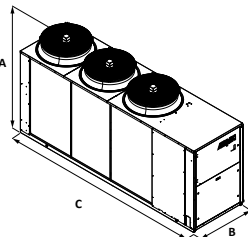
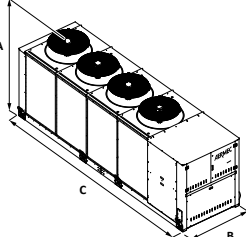
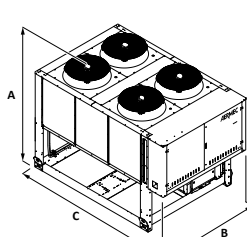
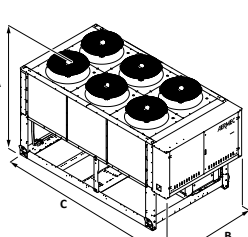
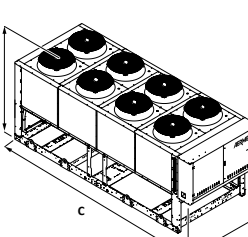
SOUND POWER:

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

SOUND PRESSURE:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)

NRL_0750 HA-HE NRL_0750/0800/0900 H-HL			NRL_1000/1250 H-HL			NRL_0800/0900/1000 HA-HE NRL_1404/1504 H-HL			NRL_1250/1404/1504 HA-HE 1655/1800 H-HL			NRL_1655/1800 HA-HE		
														
Mod. NRL	U.M.	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800			
Height	(mm)	A	H - HL	1975	1975	1975	1975	1975	2450	2450	2450	2450		
			HA - HE	1975	2450	2450	2450	2450	2450	2450	2450	2450		
Width	(mm)	B	H - HL	1500	1500	1500	1500	1500	2200	2200	2200	2200		
			HA - HE	1500	2200	2200	2200	2200	2200	2200	2200	2200		
Depth	(mm)	C	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.

NRL
2000/3600
cooling only

R410A



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

Air cooled chiller with axial fans
Cooling capacity 497kW÷994kW



- **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):
 - "O" 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	2808	3008	3310	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	-	-	-	RIFNRL2808	RIFNRL3008	RIFNRL3310	RIFNRL3600
	A - E	RIFNRL2000	RIFNRL2250	RIFNRL2500	RIFNRL2808	RIFNRL3008	RIFNRL3310	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 - F	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:



Code:

NRL

Size:

2000, 2250, 2500, 2808, 3008, 3310, 3600

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

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.

Mod. NRL 110H	U.M.	Vers.	2000	2250	*2500	*2808	*3008	*3310	*3600
Cooling capacity	(kW)	°	-	-	-	671	741	820	894
		L	-	-	-	600	669	730	783
		A	538	589	*640	709	793	884	949
		E	497	545	594	656	731	815	869
Total power input	(kW)	°	-	-	-	287,49	325,10	353,45	378,72
		L	-	-	-	316,64	357,11	387,61	418,68
		A	187,78	201,12	215,35	251,88	286,45	299,79	324,09
		E	203,31	218,57	232,77	272,18	310,80	332,18	362,36
Water flow rate	(l/h)	°	-	-	-	116100	129000	141728	154456
		L	-	-	-	103716	115584	126076	135192
		A	93052	101824	110768	122636	137084	152736	163916
		E	85828	94256	102684	113348	126248	140696	149984
Pressure drops	(kPa)	°	-	-	-	73	78	59	59
		L	-	-	-	59	64	48	46
		A	70,00	73,00	73,00	78,00	61,00	61,00	62,00
		E	61	63	63	67	52	54	54
ENERGY INDEX									
EER	(W/W)	°	-	-	-	2,34	2,29	2,32	2,36
		L	-	-	-	1,90	1,87	1,88	1,87
		A	2,87	2,98	2,97	2,82	2,77	2,95	2,93
		E	2,44	2,50	2,55	2,41	2,35	2,45	2,40
ESEER	(W/W)	°	-	-	-	3,61	3,53	3,62	3,68
		L	-	-	-	3,54	3,50	3,55	3,52
		A	3,99	4,25	4,14	3,93	3,89	3,93	3,89
		E	3,93	4,02	4,11	3,89	3,83	3,91	3,91
POWER SUPPLY									
Power supply	(A)	(All)	400V-3-50Hz with thermomagnetic switches						
Total input 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	-	-	-	556	616	686	782
		A - E	434	484	534	568	628	698	795
Starting current (LRA)	(A)	° - L	-	-	-	890	950	1020	1050
		A - E	643	752	802	902	962	1032	1063
Compressor type			-	-	-	Scroll			
Compressor / circuit	(n.)	° - L	-	-	-	8 / 4	8 / 4	10 / 4	12/4
		A - E	8/4	8/4	8/4	8 / 4	8 / 4	10 / 4	12/4
FAN TYPE									
Air flow	(m³/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
Fan quantity	(m³/h)	°	-	-	-	8	8	12	12
		L	-	-	-	8	8	12	12
		A	8	10	12	12	12	16	16
		E	8	10	12	12	12	16	16
Evaporator		All	Plates						
Hydraulic connection		All	Victaulic						
Hydraulic connection dimension	(Ø)	°-L	-	-	-	4"	4"	4"	4"
		A-E	4"	3"/4"	4"	4"	4"	4"	4"
HYDRONIC KIT									
Useful head low pump cooling mode	(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 head high pump cooling mode	(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
Buffer tank capacity	n°/l	All	2x700	2x700	2x700	2x700	2x700	2x700	2x700
SOUND DATA									
Sound power	dB(A)	°	-	-	-	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	dB(A)	°	-	-	-	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

**DATA DECLARED IN ACCORDANCE WITH
UNI EN 14511: 2011**

* EUROVENT Not certified model

Performance values refer to the following conditions:

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

SOUND POWER

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

SOUND PRESSURE

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

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;
- $\Delta t = 5$ °C.

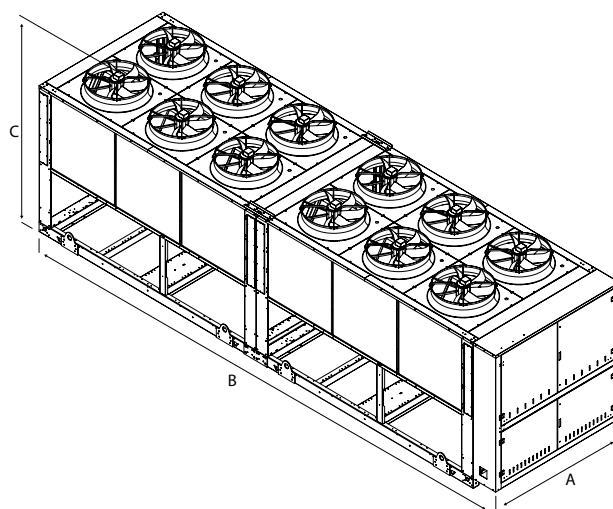
SOUND POWER

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

SOUND PRESSURE

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



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

NRL 2000/3600 heat pump

R410A



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

Air cooled heat pumps with axial fans
Cooling capacity 461kW÷940kW
Heating capacity 588kW÷1050kW



- **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
 - 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):
 - "O" standard thermostatic expansion valve
 - "X" electronic expansion valve
 - Fan type (selected in unit configurator):
 - "O" 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	2808	3008	3310	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	-	-	-	RIFNRL2808	RIFNRL3008	RIFNRL3310	RIFNRL3600
	HA - HE	RIFNRL2000	RIFNRL2250	RIFNRL2500	RIFNRL2808	RIFNRL3008	RIFNRL3310	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 - HL	-	-	-	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:



Code:

NRL

Size:

2000, 2250, 2500, 2808, 3008, 3310, 3600

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

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	*2808	*3008	*3310	*3600
Cooling capacity	(kW)	H	-	-	-	665	732	844	905
		HL	-	-	-	601	663	743	792
		HA	518	572	626	699	772	870	940
		HE	461	513	566	637	707	792	849
Total power input	(kW)	H	-	-	-	282,06	320,24	334,91	361,03
		HL	-	-	-	309,61	350,79	377,12	410,14
		HA	191,13	205,61	220,82	254,52	287,79	306,36	327,54
		HE	215,61	231,04	247,21	281,99	317,22	339,65	366,76
Water flow rate	(l/h)	H	-	-	-	114724	126248	145684	156176
		HL	-	-	-	103716	114380	128140	136568
		HA	89612	98900	108188	120744	133300	150156	162368
		HE	79636	88580	97696	109908	121948	136740	146544
Pressure drops	(kPa)	H	-	-	-	40,00	40,00	47,00	46,00
		HL	-	-	-	33,00	34,00	37,00	35,00
		HA	53	61	61	48,00	49,00	54,00	53,00
		HE	43	51	51	40,00	41,00	45,00	46,00
Heating capacity	(kW)	H - HL	-	-	-	770	858	940	1009
		HA - HE	588	639	692	780	870	972	1050
Total power input	(kW)	H - HL	-	-	-	255,01	285,35	314,85	337,04
		HA - HE	187,94	205,40	223,63	252,23	280,66	309,37	330,67
Water flow rate	(l/h)	H - HL	-	-	-	131924	147060	160992	172860
		HA - HE	100620	109392	118336	133644	148952	166496	179740
Pressure drops	(kPa)	H - HL	-	-	-	54,00	55,00	59,00	58,00
		HA - HE	69	75	75	58,00	60,00	66,00	66,00
ENERGY INDEX									
EER	(W/W)	H	-	-	-	2,36	2,29	2,52	2,50
		HL	-	-	-	1,94	1,89	1,97	1,93
		HA	2,71	2,78	2,84	2,75	2,68	2,84	2,87
		HE	2,14	2,22	2,29	2,26	2,23	2,33	2,32
ESEER	(W/W)	H	-	-	-	3,52	3,45	3,47	3,54
		HL	-	-	-	3,44	3,40	3,40	3,38
		HA	3,84	3,90	3,98	3,82	3,74	3,75	3,73
		HE	3,80	3,86	3,95	3,78	3,68	3,74	3,75
COP	(W/W)	H - HL	-	-	-	3,02	3,01	2,99	2,99
		HA - HE	3,13	3,11	3,09	3,09	3,10	3,14	3,17
Power supply	(A)	(All)	400V - 3 - 50Hz with megnetotermic						
Total input current (cooling)	(A)	H	-	-	-	482	551	592	618
		HL	-	-	-	521	594	641	673
		HA	357	379	401	469	536	572	595
		HE	388	414	441	511	582	625	654
Total input current (heating)	(A)	H	-	-	-	454	522	558	579
		HL	-	-	-	454	522	558	579
		HA	353	374	395	462	530	565	585
		HE	353	374	395	462	530	565	585
Maximum current (FLA)	(A)	H-HL	-	-	-	564	624	698	796
		HA-HE	442	495	548	580	640	714	813
Starting current (LRA)	(A)	H-HL	-	-	-	898	958	1032	1064
		HA-HE	651	763	816	914	974	1048	1081
Compressors tipe									
Compressors/circuit	n°/n°	All	SCROLL						
Fan tipe		All	Axial						
Total air flow rate in cooling mode	(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 air flow rate heating mode	(m3/h)	H-HL	-	-	-	169800	168000	234600	229200
		HA-HE	158400	199200	240000	234600	229200	318400	312000
Fan quantity	n°	All	8	10	12	12	12	16	16
Evaporator	n°	All	2	2	2	2	2	2	2
Hydraulic connection									
Dimension of hydraulic connection V00	(Ø)	All	VICTAULIC						
		H - HL	-	-	-	4"	4"	4"	4"
		HA - HE	3"	3"/4"	4"	4"	4"	4"	4"

DATA DECLARED IN ACCORDANCE WITH UNI EN 14511: 2011

* EUROVENT Not certified model

Mod. NRL	U.M.	Vers.	2000	2250	*2500	*2808	*3008	*3310	*3600
Useful head low pump cooling mode	(kPa)	H	-	-	-	104	124	106	96
		HL	-	-	-	131	144	134	127
		HA	94	111	110	87	113	98	85
		HE	118	139	136	116	131	121	112
Useful head high pump cooling mode	(kPa)	H	-	-	-	240	240	243	233
		HL	-	-	-	270	270	270	263
		HA	207	250	248	222	220	236	223
		HE	233	280	278	254	251	257	249
Useful head low pump heating mode	(kPa)	H-HL	-	-	-	63	95	86	73
		HA-HE	71	88	89	58	91	76	60
Useful head high pump heating mode	(kPa)	H-HL	-	-	-	195	186	224	211
		HA-HE	181	223	225	189	180	214	198
Buffer tank capacity	(l)	All	2x700	2x700	2x700	2x700	2x700	2x700	2x700
Sound power	dB(A)	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	dB(A)	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

Performance values refer to the following conditions:

■ Cooling

- leaving water temperature 7 °C;
- external air temperature 35 °C;
- $\Delta t = 5$ °C.

■ Heating:

- leaving water temperature 45 °C;
- external air temperature 7 °C B.S. 6 °C B.U.;
- $\Delta t = 5$ °C.

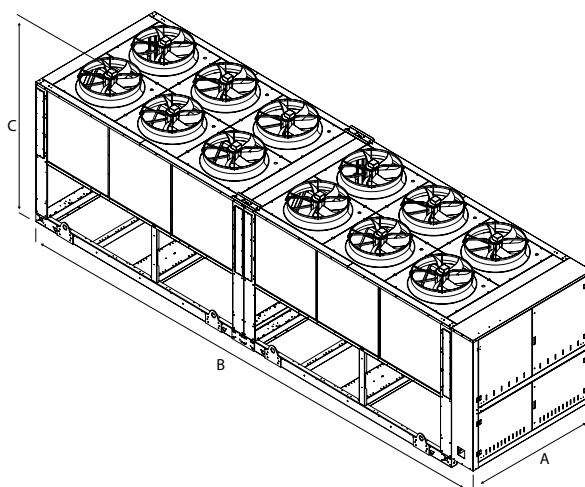
SOUND POWER

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

SOUND PRESSURE

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



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
Width	A	(mm)	H - HL	-	-	2200	2200	2200	2200
			HA - HE	2200	2200	2200	2200	2200	2200
Length	B	(mm)	H - HL	-	-	8100	8100	8100	8100
			HA - HE	6400	7250	8100	8100	11100	11100
Weight empty	(kg)		H - HL	-	-	6080	6490	6660	6880
			HA - HE	4930	5360	5780	6190	6630	7980

NRK

0280/0700

heat pumps

Reversible heat pumps
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 36÷148kW
Heating capacity 42÷175kW

R410A



AERMEC

participates in the EUROVENT programme for: LCP Check ongoing validity of certificate online: www.eurovent-certification.com



- **PRODUCTION OF HOT WATER UP TO 65°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO -20°C**
- **OPTIMIZED FOR OPERATION IN HEATING MODE**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Reversible heat pumps
- Versions**
 - NRK_HA High efficiency version
 - NRK_HE High efficiency Low noise version
- **Operational limits (1)**
 - max. external air temperature 48°C in cooling mode
 - Maximum leaving water temperature 65°C in heating mode
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input, with steam injection
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Low and high pressure transducers
- The built-in hydronic kit already contains the main water circuit components; it is available with single or twin in line, for achieving both low or high head, and buffer tank.
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX).
- Microprocessor controls.
 - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
 - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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.
- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.
- Accessories factory fitted only**
 - **DRE:** Electronic soft starter which reduces starting current by about 26%.
 - **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
 - PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

Compatibility of accessories

Mod. NRK	Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	All	•	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•	•
PGD1	All	•	•	•	•	•	•	•	•	•	•
GP	(1)	All	3	3	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)
VT (00)	All	17	17	17	17	13	13	13	13	22	22
VT (-P1-P2-P3-P4)		17	17	17	17	13	13	13	13	22	22
VT (01-02-03-04-05-06-07-08-09-10)	All	13	13	13	13	10	10	10	10	22	22
Accessories factory fitted only											
DRE	(2)	All	•	•	•	•	•	•	•	•	•
RIF	(2)	All	•	•	•	•	•	•	•	•	•
PRM1	All	•	•	•	•	•	•	•	•	•	•

(1) (x2)(x3) the number in brackets indicates the quantity to order

(2) To define

Unit Configurator

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

Field	Code
1,2,3	NRK
4,5,6,7	Size
	0200-0280-0300-0330-0350-0500-0550-0600-0650-0700 ⁽³⁾
8	Field of application
	◦ Standard ⁽⁴⁾
9	Model
	H Heat pumps
10	Heat recovery
	◦ Without recovery
	D With Desuperheater
11	Version
	A High efficiency
	E High efficiency in low noise operation
12	Coil
	◦ In aluminium
	R In copper
	S In tinned copper
	V In painted aluminium-copper (epoxy paint)
13	Fans
	◦ Standard
	M High static pressure ⁽⁵⁾
	J High static pressure Inverter ⁽⁶⁾
14	Alimentation
	◦ 400V/3N/50Hz with circuit breakers
15-16	System integrated hydronic module
	00 without pumps or buffer tank
	01 Buffer tank and n° 1 low head pump
	02 Buffer tank and n° 2 low head pump
	03 Buffer tank and n° 1 high head pump
	04 Buffer tank and n° 2 high head pump
	05 n°1 low head pump and buffer tank (with holes for immersion heaters) ⁽⁷⁾
	06 n°2 low head pump and buffer tank (with holes for immersion heaters) ⁽⁷⁾
	07 n°1 low high pump and buffer tank (with holes for immersion heaters) ⁽⁷⁾
	08 n°2 low high pump and buffer tank (with holes for immersion heaters) ⁽⁷⁾
	P1 n° 1 low head pump
	P2 n° 2 low head pump
	P3 n° 1 high head pump
	P4 n° 2 high head pump

(3) The size 0200-0280-0300-0330 only available in low noise version "HE"

(4) leaving water temperature down to 4°C

(5) Only size 0200÷0330

(6) Only size 0350÷0700

(7) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps

Technical Data

Mod. NRK Heat pumps			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	HA	kW	-	-	-	-	75	89	101	117	133	148
	HE	kW	36	50	59	66	74	87	100	114	131	145
Total input power	HA	kW	-	-	-	-	25,4	29,6	34,5	41,1	45,0	52,6
	HE	kW	11,7	17,5	19,6	22,4	27,7	32,5	38,1	45,8	49,5	58,1
EER	HA	W/W	-	-	-	-	2,96	3,00	2,94	2,85	2,96	2,81
	HE	W/W	3,03	2,88	3,03	2,95	2,68	2,69	2,61	2,49	2,64	2,50
ESEER	HA	W/W	-	-	-	-	3,56	3,63	3,60	3,54	3,59	3,46
	HE	W/W	3,61	3,52	3,62	3,54	3,47	3,54	3,51	3,42	3,49	3,40
Water flow rate	HA	l/h	-	-	-	-	12981	15275	17485	20208	22972	25512
	HE	l/h	6130	8668	10234	11377	12799	15032	17172	19710	22509	25028
Total pressure drop	HA	kPa	-	-	-	-	23	26	32	28	34	42
	HE	kPa	18	17	23	19	22	25	30	27	32	41
Heating capacity	HA/HE	kW	42	60	70	78	88	104	119	137	156	175
Total input power	HA/HE	kW	12,1	17,1	20,0	22,5	25,5	30,2	34,7	39,9	45,6	51,7
COP	HA/HE	W/W	3,49	3,49	3,48	3,48	3,45	3,44	3,43	3,43	3,42	3,38
Water flow rate	HA/HE	l/h	7173	10056	11738	13060	15506	18160	20577	23211	26704	29661
Total pressure drop	HA/HE	kPa	24	22	30	25	32	36	44	37	45	57

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

GENERAL DATA			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electrical data												
Total input current in cooling mode	(1) HA	A	-	-	-	-	55	61	66	72	86	107
	(1) HE	A	28	38	42	49	60	67	73	80	95	119
Total input current in heating mode	(1) tous	A	24	34	38	44	54	59	64	70	85	106
Maximum current (FLA)		A	40	49	61	74	75	85	94	114	144	147
Starting current (LRA)		A	124	146	175	215	216	226	191	228	285	288
Compressors												
Compressors	type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	n°	2	2	2	2	2	3	4	4	4	4	4
Circuits	n°	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger system side												
Exchanger	type	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques	Plaques
	n°	1	1	1	1	1	1	1	1	1	1	1
hydraulic connect. victaulic	(in/out)	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Fans standard												
Fans	type	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux	axiaux
	tous n°	4	6	8	8	2	2	2	2	2	3	3
Air flow rate cooling mode	HA	m³/h	-	-	-	-	37000	36500	36500	36500	58000	58000
	HE	m³/h	14000	20000	26000	26000	21100	21400	22400	22400	31900	31900
Air flow rate heating mode	tous	m³/h	14000	20000	26000	26000	37000	36500	36500	36500	58000	58000
System integrated hydronic module												
Buffer tank	l	300	300	300	300	500	500	500	500	500	500	500
Useful head	H	kPa	For more information, refer to the technical documentation									
Sound data												
Sound pressure	HA	dB(A)	-	-	-	-	50	50	50	51	53	53
	HE	dB(A)	42	42	43	43	42	42	42	43	45	45
Sound power	HA	dB(A)	-	-	-	-	82	82	82	83	85	85
	HE	dB(A)	74	74	75	75	74	74	74	75	77	77
Power supply	V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

(1) The electrical data of the versions without hydronic module integrated

Sound power

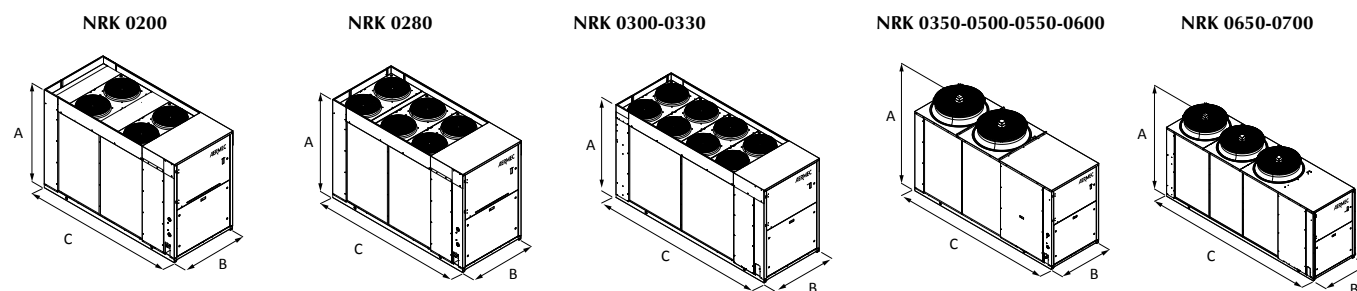
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

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

Dimensions (mm)



Mod. NRK		Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
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
Depth	(mm)	C	All	2700	2700	3250	3250	3330	3330	3330	4330	4330
Weight when empty	(kg)			804	876	960	967	1118	1264	1325	1367	1597

NRP

0200/0750

R410A



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

Multipurpose
Air/Water for outdoor installation
Axial fans, scroll compressor
Cooling capacity 43÷184kW
Heating capacity 46÷206kW



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version

NRP_A Multipurpose high efficiency version

NRP_E Multipurpose high efficiency low noise version

- **Operational limits (1)**
 - max. external air temperature 46°C
 - Cooling mode
 - Maximum leaving water temperature 55°C
 - Heating mode
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input

- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Options for integrated hydronic modules with pumps, buffer tank:
 - Buffer tank and pumps or only pumps
 - expansion tank
 - Safety valve
 - Pressure gauge
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to -10 °C, and in heating mode with external temperatures up to 42 °C
- Microprocessor controls.
 - Control from the leaving water temperature,

with the possibility of selecting control of the entering water temperature.

- Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
- Evaporating control in summer for heat pump operation
- Intelligent defrost control on drop of pressure
- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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.
- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current by about 26%.
Available only with 400V power supply.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NRL	Vers.	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	Alls	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	Alls	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1) A	-	-	-	-	-	-	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
	(1) E	3	3	3	4	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
VT (00-P1-P2-P3-P4)	Alls	17	17	17	17	17	17	13	13	13	13	22	23
VT (01-02-03-04-05-06-07-08-09-10)	Alls	13	13	13	13	13	13	10	10	10	10	22	23
VT (R1-R2-R3-R4)	Alls	17	17	17	17	17	17	13	13	13	13	22	23
Accessories factory fitted only													
DRE	(2) Alls	281	281	281	301	331	351	501	551	601	651	701	751
RIF	Alls	54	54	50	50	50	51	52	52	53	53	53	53

(1) (x2)(x3) the number in brackets indicates the quantity to order

(2) Only available for 400V/3N/50Hz power supply

Unit Configurator

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

Field	Code
1,2,3	NRP
4,5,6,7	Size 0200-0240-0280-0300-0330-0350-0500-0550-0600-0650-0700 (4)
8	Version A High efficiency E High efficiency in low noise operation
9	System type 2 2-pipe system (cooling + DHW heating) 4 4-pipe system (cooling + heating)
10	Coil ° In aluminium R In copper S In tinned copper V Coated aluminium (epoxy paint)
11	Fans ° Standard M High static pressure(5) J High static pressure Inverter(6)
12	Power supply ° 400V/3N/50Hz with circuit breakers 1 220V/3/50Hz with circuit breakers (7)
13-14	System integrated hydronic module 00 without pumps or buffer tank 01 n°1 low head pump and buffer tank 02 n°2 low head pump and buffer tank 03 n°1 high head pump and buffer tank 04 n°2 high head pump and buffer tank 05 n°1 low head pump and buffer tank (with holes for immersion heaters) (8) 06 n°2 low head pump and buffer tank (with holes for immersion heaters) (8) 07 n°1 low high pump and buffer tank (with holes for immersion heaters) (8) 08 n°2 low high pump and buffer tank (with holes for immersion heaters) (8) P1 n°1 low head pump P2 n°2 low head pump P3 n°1 high head pump P4 n°2 high head pump
15-16	Heat recovery integrated hydronic module (9) 00 without pumps R1 n°1 low head pump R2 n°2 low head pump R3 n°1 high head pump R4 n°2 high head pump

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 0200 ... 0750						
Heat recovery integrated hydronic module						
System integrated hydronic module		00	R1	R2	R3	R4
	00	ok	ok	ok	ok	ok
	01	ok	nd	nd	nd	nd
	02	ok	nd	nd	nd	nd
	03	ok	nd	nd	nd	nd
	04	ok	nd	nd	nd	nd
	05	ok	nd	nd	nd	nd
	06	ok	nd	nd	nd	nd
	07	ok	nd	nd	nd	nd
	08	ok	nd	nd	nd	nd
	P1	ok	ok	ok	ok	ok
	P2	ok	ok	ok	ok	ok
	P3	ok	ok	ok	ok	ok
	P4	ok	ok	ok	ok	ok

nd = not available

(4) The size 0200-0240-0280-0300-0330-0350 only available in low noise version "E"

(5) Only size 0200÷0350

(6) Only size 0500÷0750

(7) is not available for size 0200-0240-0750

(8) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps

(9) 2-pipe system - can works as priority regardless of main system operation

Technical Data

Mod. NRP Multipurpose for 2-pipe system			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750	
Cooling system side															
Cooling capacity	A	kW	-	-	-	-	-	-	100	103	123	140	159	184	
	E	kW	43	50	56	64	68	80	95	99	116	130	152	178	
Total input power	A	kW	-	-	-	-	-	-	32,47	36,00	44,15	50,51	55,16	64,58	
	E	kW	14,01	16,59	18,92	20,89	23,25	27,06	35,23	38,95	48,37	55,51	61,88	70,60	
EER	A	W/W	-	-	-	-	-	-	3,07	2,87	2,80	2,78	2,88	2,85	
	E	W/W	3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52	
Water flow rate	A	l/h	-	-	-	-	-	-	17200	17900	21300	24252	27520	31800	
	E	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867	
Total pressure drop	A	kPa	-	-	-	-	-	-	37	39	37	48	56	67	
	E	kPa	26	37	22	29	22	31	34	35	32	41	51	63	
Heating system side															
Heating capacity	A/E	kW	46	53	60	75	80	84	107	113	138	153	174	206	
Total input power	A/E	kW	13,34	15,63	17,76	22,41	23,96	25,70	32,64	35,08	41,26	45,72	53,80	62,81	
COP	A/E	W/W	3,47	3,41	3,39	3,37	3,35	3,28	3,26	3,21	3,34	3,34	3,23	3,29	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19270	23564	26144	29756	35260	
Total pressure drop	A/E	kPa	30	42	25	40	31	34	42	45	45	56	65	83	
Heating DHW side															
Heating capacity	A/E	kW	46	53	60	75	80	84	106	112	138	153	174	206	
Total input power	A/E	kW	13,24	15,48	17,73	22,36	24,01	25,57	32,54	34,98	41,33	45,66	53,46	62,35	
COP	A/E	W/W	3,49	3,44	3,40	3,37	3,35	3,30	3,27	3,22	3,33	3,35	3,25	3,30	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260	
Total pressure drop	A/E	kPa	13	17	21	33	38	19	31	34	51	49	35	50	
Cooling with heat recovery															
Cooling capacity	A/E	kW	46	52	58	69	74	87	103	111	134	148	169	203	
Recovered power	A/E	kW	58	67	75	88	95	111	132	143	175	194	219	262	
Total input power	A/E	kW	13,45	15,82	18,10	20,85	22,90	25,90	31,18	33,37	43,87	48,58	53,03	64,06	
Water flow rate (system side)	A/E	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925	
Total pressure drop (system side)	A/E	kPa	29	41	24	33	26	36	40	44	42	52	62	81	
Water flow rate (DHW side)	A/E	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892	
Total pressure drop (DHW side)	A/E	kPa	20	27	33	46	54	33	47	55	82	78	56	81	
TER	(1)	A/E	W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27

Mod. NRP Multipurpose for 4-pipe system			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750	
Cooling system side															
Cooling capacity	A	kW	-	-	-	-	-	-	100	103	123	140	159	184	
	E	kW	43	50	56	64	68	80	95	99	116	130	152	178	
Total input power	A	kW	-	-	-	-	-	-	32,47	36,00	44,15	50,51	55,16	64,58	
	E	kW	14,01	16,59	18,92	20,89	23,25	27,06	35,23	38,95	48,37	55,51	61,88	70,60	
EER	A	W/W	-	-	-	-	-	-	3,07	2,87	2,80	2,78	2,88	2,85	
	E	W/W	3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52	
Water flow rate	A	l/h	-	-	-	-	-	-	17200	17900	21300	24252	27520	31800	
	E	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867	
Total pressure drop	A	kPa	-	-	-	-	-	-	37	39	37	48	56	67	
	E	kPa	26	37	22	29	22	31	34	35	32	41	51	63	
Heating system side															
Heating capacity	A/E	kW	46	53	60	75	80	84	107	113	138	153	174	206	
Total input power	A/E	kW	13,24	15,48	17,73	22,36	24,01	25,57	32,54	34,98	41,33	45,66	53,46	62,35	
COP	A/E	W/W	3,49	3,44	3,39	3,37	3,35	3,28	3,26	3,21	3,34	3,34	3,23	3,29	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260	
Total pressure drop	A/E	kPa	13	17	21	33	38	19	31	34	51	49	35	50	
Cooling wit heat recovery															
Cooling capacity	A/E	kW	46	52	58	69	74	87	103	111	134	148	169	203	
Recovered power	A/E	kW	58	67	75	88	95	111	132	143	175	194	219	262	
Total input power	A/E	kW	13,45	15,82	18,10	20,85	22,90	25,90	31,18	33,37	43,87	48,58	53,03	64,06	
Water flow rate (cold side)	A/E	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925	
Total pressure drop (cold side)	A/E	kPa	29	41	24	33	26	36	40	44	42	52	62	81	
Water flow rate (hot side)	A/E	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892	
Total pressure drop (hot side)	A/E	kPa	20	27	33	46	54	33	47	55	82	78	56	81	
TER	(1)	A/E	W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27

- **Cooling (14511:2011)**
Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C
 - **Heating (14511:2011)**
Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.
 - **Cooling mode with heat recovery:**
heat recovery water temperature (in/out) 40°C/45°C; Evaporator water temperature (out) 7°C
- (1) Total Efficiency Ratio

Technical Data

GENERAL DATA				0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electrical data															
Total input current	(1)	A	A	-	-	-	-	-	-	55	59	72	82	88	113
	(1)	E	A	28	33	38	41	45	52	60	64	79	91	99	120
Maximum current (FLA)	(1)	A/E	A	36	41	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)	(1)	A/E	A	119	150	155	184	190	200	214	220	232	243	261	320
Compressors															
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	2	2	2	2	2	2	2	3	3	4	4	4	4
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Capacity control		%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Fans standard															
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
		n°	6	6	6	8	8	8	2	2	2	2	2	3	3
Air flow rate	A	m³/h	-	-	-	-	-	-	37000	37000	36500	36500	58000	48000	
cooling mode	E	m³/h	20000	20000	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600	
Air flow rate heating mode		m³/h	20000	20000	20000	26000	26000	26000	37000	37000	36500	36500	58000	48000	
System integrated hydronic module															
Buffer tank	I.		300	300	300	300	300	300	500	500	500	500	500	500	700
Useful head	kPa	For more information, refer to the selection program Magellan or the technical documentation available													
Sound data															
Sound pressure	(2)	A	dB(A)	-	-	-	-	-	-	50	50	50	51	53	53
	(2)	E	dB(A)	42	42	42	43	43	44	42	42	42	43	45	45
Sound power	(2)	A	dB(A)	-	-	-	-	-	-	82	82	82	83	85	85
	(2)	E	dB(A)	74	74	74	75	75	76	74	74	74	75	77	77
Power supply	V/ph/Hz		400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

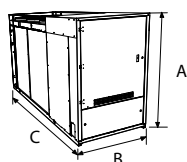
(1) The electrical data of the versions without hydronic module integrated

(2) Calculated in cooling mode

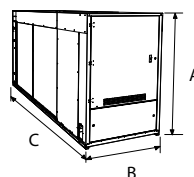
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

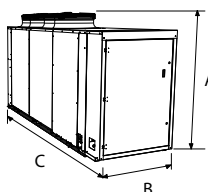
NRP 0200 ÷ 0280



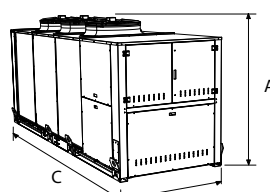
NRP 0300 ÷ 0350



NRP 0500 ÷ 0650



NRP 0700 ÷ 0750



Mod. NRP	Vers	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height (mm)	A	1606	1606	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
Width (mm)	B	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth (mm)	C	2700	2700	2700	3200	3200	3200	3342	3342	3342	3342	4342	4342
Weight when empty (kg)		788	790	792	862	872	894	1233	1237	1359	1378	1591	1939

NRP

0800/1800

R410A

Multipurpose
Air/Water for outdoor installation
Axial fans, scroll compressor
Cooling capacity 199÷475kW
Heating capacity 242÷547kW



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



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version

NRP_A Multipurpose high efficiency version
NRP_E Multipurpose high efficiency low noise version

- **Operational limits (1)**
 - max. external air temperature 46°C
 - Cooling mode
 - Maximum leaving water temperature 55°C
 - Heating mode
- 2 refrigerant circuits
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter
- Options for integrated hydronic modules with pumps:
 - Pumps or only pumps
 - expansion tank
 - Safety valve
 - Pressure gauge
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to -10 °C, and in heating mode with external temperatures up to 42 °C

- Microprocessor controls.
 - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
 - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
 - Evaporating control in summer for heat pump operation
 - Intelligent defrost control on drop of pressure
 - Automatic rotation of compressors and pumps based on operating hours
 - Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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.
- **GP:** Protection grille protects the external coil from accidental damage.
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

under the base of the unit.

Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current by about 26%.
Available only with 400V power supply.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NRL	Vers.	0800	0900	1000	1250	1404	1504	1655	1800
AER485P1	Alls	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•
PGD1	Alls	•	•	•	•	•	•	•	•
GP	Alls	GP260	GP260	GP260	GP350	GP350	GP350	GP500	GP500
AVX (00)	Alls	704	710	716	719	725	730	734	737
AVX (P1-P2-P3-P4)	Alls	706	712	712	721	727	732	736	736
AVX (P1-R1÷P4-R4)	Alls	706	712	712	721	727	732	736	736
Accessories factory fitted only									
DRE	(1) Alls	801	901	1001	1251	1404	1504	1655	1801
RIF	Alls	88	90	92	92	92	92	93	94

(1) Only available for 400V/3/50Hz power supply

Unit Configurator

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

Field	Code
1,2,3	NRP
4,5,6,7	Size
	0800-0900-1000-1250-1404-1504-1655-1800
8	Version
	A High efficiency
	E High efficiency in low noise operation
9	System type
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	Coil
	° In aluminium
	R In copper
	S In tinned copper
	V Coated aluminium (epoxy paint)
11	Ventilatori
	° Standard
	J High static pressure Inverter
12	Power supply
	° 400V/3/50Hz with circuit breakers
13-14	System integrated hydronic module
	00 without pumps
	P1 n°1 low head pump
	P2 n°2 low head pump
	P3 n°1 high head pump
	P4 n°2 high head pump
15-16	Kit idronico integrato lato recupero
	00 without pumps
	R1 n°1 low head pump
	R2 n°2 low head pump
	R3 n°1 high head pump
	R4 n°2 high head pump

NRP		NRP 0800 ... 1000				
		Heat recovery integrated hydronic module				
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	n.d.	ok	n.d.
	P1	ok	ok	n.d.	ok	n.d.
	P2	ok	ok	n.d.	ok	n.d.
	P3	ok	ok	n.d.	ok	n.d.
	P4	ok	ok	n.d.	ok	n.d.

NRP		NRP 1250 ... 1800				
		Heat recovery integrated hydronic module				
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	ok	ok	ok
	P1	ok	ok	ok	ok	ok
	P2	ok	ok	ok	ok	ok
	P3	ok	ok	ok	ok	ok
	P4	ok	ok	ok	ok	ok

nd = not available

Technical Data

Mod. NRP Multipurpose for 2-pipe system				0800	0900	1000	1250	1404	1504	1655	1800
Cooling system side											
Cooling capacity	A	kW		217	242	259	321	363	400	439	475
	E	kW		199	216	229	290	331	367	400	428
Total input power	A	kW		73,52	83,41	89,40	109,36	122,55	136,71	147,20	157,93
	E	kW		81,23	95,24	101,32	121,82	135,62	150,55	163,11	176,67
EER	A	W/W		2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	E	W/W		2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
Water flow rate	A	l/h		37498	41796	44753	55556	62852	69171	75888	81966
	E	l/h		34477	37289	39609	50044	57122	63288	69115	73977
Total pressure drop	A	kPa		59	58	54	64	52	53	55	55
	E	kPa		50	47	43	54	43	44	46	45
Heating system side											
Heating capacity	A/E	kW		242	259	292	387	402	461	506	547
Total input power	A/E	kW		74,65	81,11	89,40	117,15	121,47	139,96	155,68	167,47
COP	A/E	W/W		3,25	3,20	3,26	3,30	3,31	3,30	3,25	3,27
Water flow rate	A/E	l/h		41452	44312	49946	66115	68833	78870	86579	93555
Total pressure drop	A/E	kPa		72	66	68	93	63	68	72	72
Heating DHW side											
Heating capacity	A/E	kW		242	259	291	385	401	460	505	546
Total input power	A/E	kW		74,26	80,71	89,01	116,04	120,95	139,45	155,00	166,80
COP	A/E	W/W		3,26	3,21	3,27	3,32	3,32	3,30	3,26	3,27
Water flow rate	A/E	l/h		41452	44312	49946	66048	68833	78870	86579	93555
Total pressure drop	A/E	kPa		50	44	49	49	44	51	51	53
Cooling wit heat recovery											
Cooling capacity	A/E	kW		226	254	282	339	384	428	470	503
Recovered power	A/E	kW		291	330	366	434	493	552	601	645
Total input power	A/E	kW		68,92	80,24	89,65	102,00	116,23	132,97	140,38	151,76
Water flow rate (system side)	A/E	l/h		38924	43834	48556	58291	66151	73685	80797	86568
Total pressure drop (system side)	A/E	kPa		63	64	63	70	57	60	62	61
Water flow rate (DHW side)	A/E	l/h		49708	56417	62609	74305	84453	94601	102857	110425
Total pressure drop (DHW side)	A/E	kPa		72	72	78	63	66	73	72	74
TER	(1)	A/E	W/W	7,50	7,29	7,23	7,58	7,55	7,38	7,63	7,57

Mod. NRP Multipurpose for 4-pipe system				0800	0900	1000	1250	1404	1504	1655	1800
Cooling system side											
Cooling capacity	A	kW		217	242	259	321	363	400	439	475
	E	kW		199	216	229	290	331	367	400	428
Total input power	A	kW		73,52	83,41	89,40	109,36	122,55	136,71	147,20	157,93
	E	kW		81,23	95,24	101,32	121,82	135,62	150,55	163,11	176,67
EER	A	W/W		2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	E	W/W		2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
Water flow rate	A	l/h		37498	41796	44753	55556	62852	69171	75888	81966
	E	l/h		34477	37289	39609	50044	57122	63288	69115	73977
Total pressure drop	A	kPa		59	58	54	64	52	53	55	55
	E	kPa		50	47	43	54	43	44	46	45
Heating system side											
Heating capacity	A/E	kW		242	259	291	385	401	460	505	546
Total input power	A/E	kW		74,26	80,71	89,01	116,04	120,95	139,45	155,00	166,80
COP	A/E	W/W		3,26	3,21	3,27	3,32	3,32	3,30	3,26	3,27
Water flow rate	A/E	l/h		41452	44312	49946	66048	68833	78870	86579	93555
Total pressure drop	A/E	kPa		50	44	49	49	44	51	51	53
Cooling wit heat recovery											
Cooling capacity	A/E	kW		226	254	282	339	384	428	470	503
Recovered power	A/E	kW		291	330	366	434	493	552	601	645
Total input power	A/E	kW		68,92	80,24	89,65	102,00	116,23	132,97	140,38	151,76
Water flow rate (cold side)	A/E	l/h		38924	43834	48556	58291	66151	73685	80797	86568
Total pressure drop (cold side)	A/E	kPa		63	64	63	70	57	60	62	61
Water flow rate (hot side)	A/E	l/h		49708	56417	62609	74305	84453	94601	102857	110425
Total pressure drop (hot side)	A/E	kPa		72	72	78	63	66	73	72	74
TER	(1)	A/E	W/W	7,50	7,29	7,23	7,58	7,55	7,38	7,63	7,57

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

Cooling mode with heat recovery:

heat recovery water temperature (in/out) 40°C/45°C; Evaporator water temperature (out) 7°C

(1) Total Efficiency Ratio

Technical Data

GENERAL DATA				0800	0900	1000	1250	1404	1504	1655	1800
Electrical data											
Total input current	(1)	A	A	136	158	180	196	235	273	289	304
	(1)	E	A	145	169	192	211	251	292	306	324
Maximum current (FLA)	(1)	A/E	A	173	195	217	267	296	325	365	398
Starting current (LRA)	(1)	A/E	A	348	404	426	535	505	534	633	666
Compressors											
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	4	4	4	4	4	4	5	6
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control			%								
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system											
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"	4"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system											
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"	4"
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	4	4	4	6	6	6	8	8
Air flow rate	A	m³/h	85600	84600	83600	126000	124200	122400	168000	165600	
cooling mode	E	m³/h	59920	59220	60610	88200	90000	91800	117600	115920	
Air flow rate heating mode		m³/h	85600	84600	83600	126000	124200	122400	168000	165600	
System integrated hydronic module											
Useful head	kPa			For more information, refer to the selection program Magellan or the technical documentation							
Sound data											
Sound pressure	(2)	A	dB(A)	56,5	56,5	56,5	59,5	59	58,5	60	62
	(2)	E	dB(A)	51	51	51	54	53,5	53	54,5	56,5
Sound power	(2)	A	dB(A)	88,5	88,5	88,5	91,5	91	91,5	92	94
	(2)	E	dB(A)	83	83	83,5	86	85,5	85	86,5	88,5
Power supply	V/ph/Hz		400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz

Sound power

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

Sound pressure

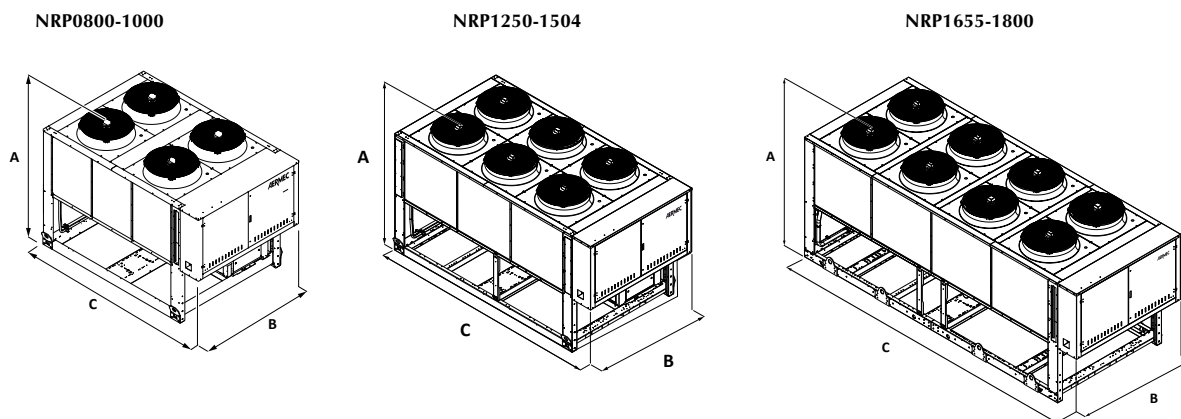
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

(1) The electrical data of the versions without hydronic module integrated

(2) Calculated in cooling mode

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

Dimensions (mm)



Mod. NRP	Vers	0800	0900	1000	1250	1404	1504	1655	1800
Height	(mm) A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm) B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm) C	Alls	3400	3400	3400	4250	4250	4250	5750
Weight when empty	(kg)		2270	2460	2640	2970	3220	3430	4090

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

NRL

0280/0700
free-cooling

R410A

Chillers with freecooling
Air/Water outdoor installation
Axial fans and scroll compressor
Cooling capacity 58kW÷174kW



- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN WITH PARTIAL LOADS**
- **VERSION WITH INTEGRATED HYDRONIC MODULE**

Features

- Chiller, air source with freecooling

Versions

NRL_FA freecooling high efficiency

NRL_FE freecooling high efficiency low noise

NRL_BA freecooling high efficiency without use of glycol

NRL_BE freecooling high efficiency low noise without use of glycol

• Operation modes:

Free-Cooling only (100%): 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)

- 2 cooling circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A
- Flow switch as standard supply.
- Water filter.
- High and low pressure transducers (standard for all versions)
- Three-way valve located on the water side for water switch-over on the Free-Cooling coils
- High efficiency air-water exchanger (Free-Cooling) with smooth tubes and corrugated fins
- Possibility of integrated hydronic module user side:
- Buffer tank and pumps, or pumps only
- Expansion tank

- Safety valve
- Pressure gauge
- Drain valve
- Axial fans with low sound level.
- Fan speed adjustment device for low air temperature operation. Manages the cooling capacity in the Free-Cooling mode
- PR3 Simplified remote control panel with shielded cable up to 50 m. Performs the basic checks of the unit with alarm warnings.
- 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.
- Metallic protective cabinet with anti-corrosion polyester paint.

Accessories

- **AER485:** 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
- **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.

- **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.
- **AERSET:** L'accessorio AERSET permette di compensare automaticamente i set di lavoro dell'unità a cui è collegato, basandosi su un segnale 0-10V in MODBUS in ingresso. Accessorio obbligatorio: AER485 oppure MODU-485A.
- **GP:** Griglia di protezione, protegge la batteria esterna da urti fortuiti.
- **VT:** anti-vibration support, to be fitted below

the sheet metal base of the unit.

Factory fitted accessory

- **DRE:** Current soft starter device (about 26% for two-circuit-units, 22% for three-circuit-units)
- **RIF:** Capacitor device. Connected in parallel to the motor winding. It allows to maintain a constant COS ϕ at 0.95 and also allows an input current reduction (about 10%).
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

Accessory compatibility

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485	All	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•
PGS	All	•	•	•	•	•	•	•	•	•
AERSET	All	•	•	•	•	•	•	•	•	•
DUALCHILLER	All	•	•	•	•	•	•	•	•	•
MULTICHILLER	All	•	•	•	•	•	•	•	•	•
GP	(1) All	4	4	4	4	2(x2)	2(x2)	2(x3)	2(x3)	2(x3)
VT	00/P3/P4	17	17	17	17	13	13	22	22	22
	03/04	13	13	13	13	10	10	22	22	22
Factory fitted accessory										
DRE	All	281	301	331	351	501	551	601	651	701
RIF	All	50	50	50	51	52	52	53	53	53
PRM1	All	•	•	•	•	•	•	•	•	•

(1) (x2) indicates the quantity to order

Choice of Unit

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

- Field Code**
1,2,3 NRL
4,5,6,7 Size
0280-0300-0330-0350-0500-0550-0600-0650-0700
8 Field of use
° Standard with produced water down to +4 °C
Y Low leaving water up to -6 °C
X Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us)
9 Model
F Freecooling
K Free-cooling low pressure drops
B Freecooling glycol free
10 Heat recovery units:
° Senza recupero di calore
11 Versions
A High efficiency
E High efficiency, low noise versions
12 Coil
° Aluminium
R Copper
S Tinned copper
V Coated
13 Fans
° Standard
M High static pressure
14 Power supply
° 400V/3N/50Hz with thermomagnetic switches
1 220V/3/50Hz with thermomagnetic switches
15-16 Integrated hydronic module user side (2)
00 Without hydronic module
03 n° 1 high head pump and buffer tank
04 n° 2 high head pumps and buffer tank
P3 n° 1 high head pump
P4 n° 2 high head pumps

(2) option kit hydronic system side is available for free cooling only models "F/B"

Warning:

– the standard options are shown by the symbol °;

Example of the commercial code: NRL0350°F°A°°°00

This is a size 0350 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

Model Freecooling			0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	FA	kW	-	-	-	-	99	104	132	144	159
	FE	kW	59	65	74	82	91	95	119	130	147
Total power input	FA	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8
	FE	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8
EER	FA	W/W	-	-	-	-	2,93	2,79	2,96	2,79	2,62
	FE	W/W	3,26	2,98	3,08	2,90	2,46	2,37	2,42	2,17	2,23
Water flow rate	FA	l/h	-	-	-	-	17030	17890	22700	24770	27350
	FE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop	FA	kPa	-	-	-	-	60	69	78	73	87
	FE	kPa	63	53	66	58	51	58	63	60	74
Cooling capacity	FA/FE	kW	58,0	68,0	83,0	85,0	103,0	104,0	137,0	159,0	174,0
Total power input	FA/FE	kW	1,05	1,05	1,35	1,35	2,65	2,65	3,9	3,9	5,4
EER	FA/FE	W/W	55,24	64,76	61,48	62,96	38,87	39,25	35,13	40,77	32,22
Water flow rate	FA	l/h	-	-	-	-	17030	17890	22700	24770	27350
	FE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop	FA	kPa	-	-	-	-	79	90	108	107	124
	FE	kPa	96	69	86	82	67	75	88	87	106

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

Modelli Freecooling glycol free				0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	(1)	BA/BE	kW	45	52	64	66	79	80	104	122	133
Total power input		BA/BE	kW	1,85	1,85	2,35	2,35	3,65	3,65	5,2	5,7	7,7
EER		BA/BE	W/W	24,32	28,11	27,23	28,09	21,64	21,92	20,00	21,40	17,27
Water flow rate		BA	l/h	-	-	-	-	17030	17890	22700	24770	27350
		BE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280
Total pressure drop		BA/BE	kPa	-	-	-	-	92	101	101	104	120
		BE	kPa	94	88	90	82	78	84	82	85	103

Freecooling mode glycol free (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

(1) The yields in functioning as chillers, are the same

Model Freecooling low pressure drop			0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity	KA	kW	-	-	-	-	101	106	135	147	162
	KE	kW	60	66	76	84	93	97	121	133	150
Total power input	KA	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8
	KE	kW	18,1	21,8	24	28,3	37	40	49,2	59,8	65,8
EER	KA	W/W	-	-	-	-	3	2,84	3,03	2,84	2,67
	KE	W/W	3,32	3,04	3,15	2,96	2,51	2,42	2,47	2,22	2,28
Water flow rate	KA	l/h	-	-	-	-	17369	18246	23158	25264	27895
	KE	l/h	10351	11404	12983	14386	15965	16667	20878	22807	25790
Total pressure drop	KA	kPa	-	-	-	-	44	37	42	40	49
	KE	kPa	34	41	36	43	38	31	34	33	42
Cooling capacity	KA/KE	kW	56	66	81	83	98	99	121	139	153
Total power input	KA/KE	kW	1,05	1,05	1,35	1,35	2,65	2,65	3,9	3,9	5,4
EER	KA/KE	W/W	53,6	62,8	59,6	61,1	37	37,3	31,1	35,7	28,2
Water flow rate	KA	l/h	-	-	-	-	16674	17516	22232	24253	26779
	KE	l/h	9937	10948	12463	13811	15327	16000	20042	21895	24758
Total pressure drop	KA	kPa	-	-	-	-	57	50	58	58	71
	KE	kPa	49	51	50	60	48	42	47	47	61

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

Technical data

GENERAL DATA				280	300	330	350	500	550	600	650	700
Electrical data												
Total input current (Chiller)	(2)	FA	A	-	-	-	-	61	65	79	84	101
	(2)	FE	A	32	38	41	51	67	70	87	97	109
Total input current (freecooling)	(2)	FA/FE	A	4,6	4,6	5,9	5,9	5,9	5,9	8,7	8,7	11,6
	(2)	BA/BE	A	8,1	8,1	10,3	10,3	8,1	8,1	11,6	12,7	16,5
	(2)	KA/KE	A	4,6	4,6	5,9	5,9	5,9	5,9	8,7	8,7	11,6
Maximum current (FLA)				46	53	58	63	76	81	100	112	122
Starting current (LRA)			A	155	184	190	200	214	220	232	243	261
Compressor												
Compressor			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	2	2	2	2	3	3	4	4	4
Circuit			n°	2	2	2	2	2	2	2	2	2
capacity Control			%	0/50/100	0/50/100	0/50/100	0/50/100			0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant			type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger user side												
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1
Water connections	(in/out)		Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Fans standard												
Fans			type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
		A	n°	-	-	-	-	2	2	2	2	3
		E	n°	6	6	8	8	2	2	2	2	3
Air flow rate		A	m³/h	-	-	-	-	32500	32500	50000	49000	56000
		E	m³/h	20000	19000	25000	25000	23400	24100	33500	35300	47600
Integrated hydronic module user side (3)												
Buffer tank		I		300	300	300	300	300	300	300	300	300
Usefoul head (chiller)		A	kPa	-	-	-	-	144	132	147	137	99
		E	kPa	124	132	110	118	160	151	174	169	131
Usefoul head (freecooling)		A	kPa	-	-	-	-	123	109	114	122	77
		E	kPa	88	115	88	91	142	131	147	156	115
Sound data												
Sound pressure level		A	dB(A)	-	-	-	-	50	50	51	52	55
		E	dB(A)	42	42	43	44	44	44	44	45	50
Sound power level		A	dB(A)	-	-	-	-	82	82	83	84	85
		E	dB(A)	74	74	75	76	76	76	76	77	77
Power supply			V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

(2) The electrical data of the versions without hydronic module integrated

(3) option kit hydronic system side is available for free cooling only models "F/B"

Sound power

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

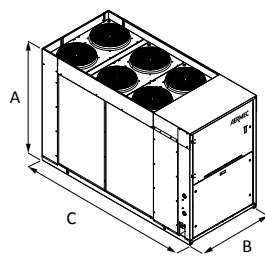
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

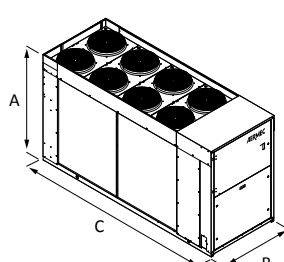
Note: For more information refer to the program selection Magellano or the technical documentation available on the website www.aermec.com

Dimensions (mm)

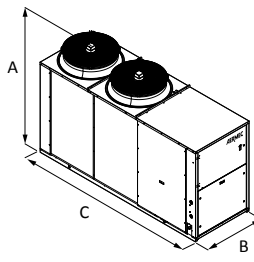
NRL 0280



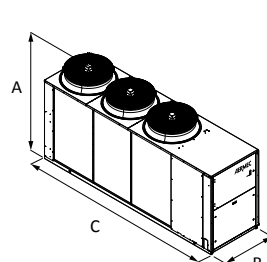
NRL 0300-0330-0350



NRL 0500-0550-0600-0650



NRL 0700



Mod. NRL	U.M.	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700
Height	A	(mm)	1606	1606	1606	1606	1875	1875	1875	1875	1875
Width	B	(mm)	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth	C	A/E 00	2950	2950	2950	2950	3260	3260	4010	4010	4010
		FA/FE									
		BA/BE									
Weight when empty	A	(kg)	838	908	913	922	1079	1083	1386	1460	1540

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

NRL
0750/1800
free-cooling

R410A

Air cooled chillers with axial fans
Cooling capacity from 177 kW to 452 kW



- **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 (stand-alone 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

- **AERSET:** The AERSET accessory allows the automatic compensation of the operating set-point of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory: AER485 or MODU-485A
- **AER485:** 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;
 - 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.	0750	0800	0900	1000	1250	1404	1504	1655	1800
AERSET	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AER485	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
DUALCHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGS	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
VT	00 - P3 - P4	23	-	-	-	-	-	-	-	-
	03 - 04	23	-	-	-	-	-	-	-	-
	00	-	739	739	745	748	752	757	761	766
AVX	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	1404	1504	1655	1801
GP	All	10 (x3)	260	260	260	350	350	350	500	500
RIF	All	53	88	90	92	92	92	92	93	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:



Code:

NRL

Size:

0750, 0800, 0900, 1000, 1250, 1404, 1504, 1655, 1800

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
- K - Free-cooling low pressure drop
- B - Free-cooling glycol free

Heat recovery

- ° - Without 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)

Fan:

- ° - Standard
- J - Inverter

Power supply:

- ° - 400V 3N~ 50Hz with circuit breakers (only NRL 0750 model)
- 400V 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:

NRL "B" size 750 can not be provided with hydronic kit 03-04-P3-P4

NRL "B" size 800-1800 can not be provided with hydronic kit 03-04

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.	0750	0800	0900	1000	1250	1404	1504	1655	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)	Tutte	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
Mod. NRL Free Cooling - "K" low pressure drop											
Cooling capacity	(kW)	FA	194,8	214,2	233,6	251,9	316,2	343,7	371,3	438,6	461,0
		FE	180,5	199,9	220,3	232,6	294,8	316,2	337,6	408,0	429,4
Total power input	(kW)	FA	69,6	75,0	89,0	103,0	114,0	136,0	157,0	159,0	175,0
		FE	76,4	80,0	93,0	109,0	120,0	145,0	169,0	169,0	186,0
Water flow rate	(l/h)	FA	33509	36843	40176	43334	54387	59124	63861	75440	79300
		FE	31053	34387	37895	40001	50703	54387	58071	70177	73861
Total pressure drop	(kPa)	FA	34,6	64,8	65,8	70,2	65,6	69,1	75,2	95,5	105,2
		FE	29,7	56,5	58,6	59,8	57,0	58,5	62,2	82,6	91,3
EER	(W/W)	FA	2,80	2,86	2,62	2,45	2,77	2,53	2,36	2,76	2,63
		FE	2,36	2,50	2,37	2,13	2,46	2,18	2,00	2,41	2,31
Input current	(A)	FA	123	144	169	195	208	252	296	298	317
		FE	135	149	174	203	217	265	312	312	332
Cooling capacity	(kW)	FA/FE	165,3	174,6	199,1	223,7	242,2	275,0	307,9	378,5	420,2
Total power input	(kW)	FA/FE	5,4	7,5	7,5	7,5	11	11	11	14,5	14,5
Water flow rate	(l/h)	FA	32169	35369	38569	41601	52212	56759	61306	72422	76128
		FE	29811	33011	36380	38401	48675	52212	55748	67370	70907
Total pressure drop	(kPa)	FA	63,9	88,3	86,9	91,2	87,1	90,9	97,3	125,6	135,6
		FE	54,9	76,9	77,3	77,7	75,7	76,9	80,4	108,7	117,6
EER	(W/W)	FA/FE	30,6	23,3	26,6	29,8	22,0	25,0	28,0	26,1	29,0
Input current	(A)	FA/FE	11,6	15	15	15	22	22	22	30	30
Mod. NRL Free Cooling Glycol free											
Cooling capacity	kW	Tutte	143	153	170	186	217	242	266	328	361
Total power input	kW	Tutte	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

Cooling

- leaving water temperature 7°C;
- external air temperature 35°C;
- $\Delta t = 5^\circ\text{C}$;

Cooling in Free-Cooling mode:

- entering water temperature 15°C;
- external air temperature 2°C;
- nominal water flow rate;
- compressors off.

Cooling in Free-Cooling Glycol free

- entering water temperature 15°C;
- external air temperature 2°C;
- nominal water flow rate;
- compressors off.

Technical Data

Mod. NRL Free Cooling	U.M.	Vers.	0750	0800	0900	1000	1250	1404	1504	1655	1800
Maximum current (FLA)	(A)	FA/FE	144	177	199	221	274	290	320	357	406
Starting current (LRA)	(A)	FA/FE	320	352	408	430	542	624	654	691	674
Compressors/circuits	(n°/n°)	FA/FE	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	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
Mod. NRL Free Cooling Glycol free											
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

Sound power:

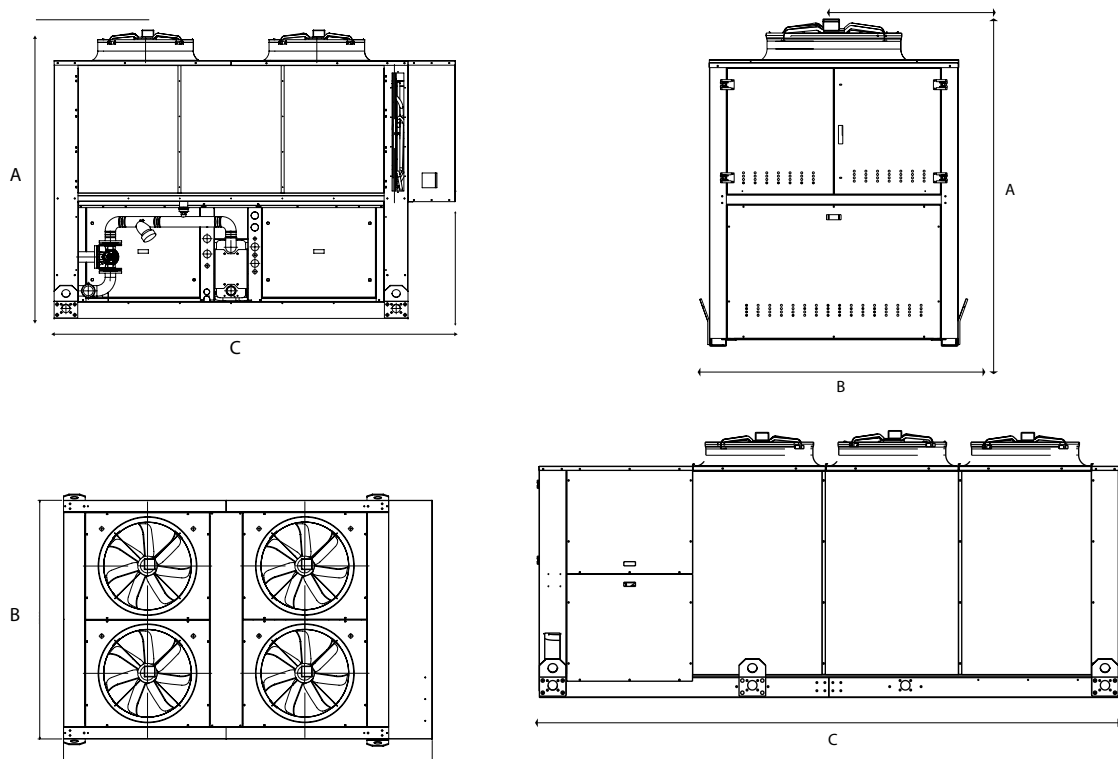
Aermec determines the value based on the measurements made in compliance with the standard ISO 9614 - 2, respecting Eurovent requirements.



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.	0750	0800	0900	1000	1250	1404	1504	1655	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

NRL 2000/3600 free-cooling

R410A

Air cooled chiller with axial fans
Cooling capacity from 446 kW to 904 kW



- **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 (stand-by 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

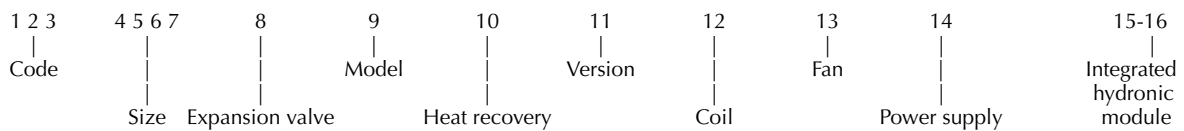
- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** spring anti-vibration mounts Select the AVX model from the compatibility table.
- **GP:** Protection grille protects the external coil from accidental damage.
- **PGS:** Daily/Weekly Programmer. Allows two daily 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	2808	3008	3310	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	RIFNRL2808	RIFNRL3008	RIFNRL3310	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:



Code:

NRL

Size:

2000, 2250, 2500, 2808, 3008, 3310, 3600

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

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 03-04

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	2808	3008	3310	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	8/4	8/4	10/4	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 1/4"	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;
- $\Delta t = 5^\circ\text{C}$;

Sound power:

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

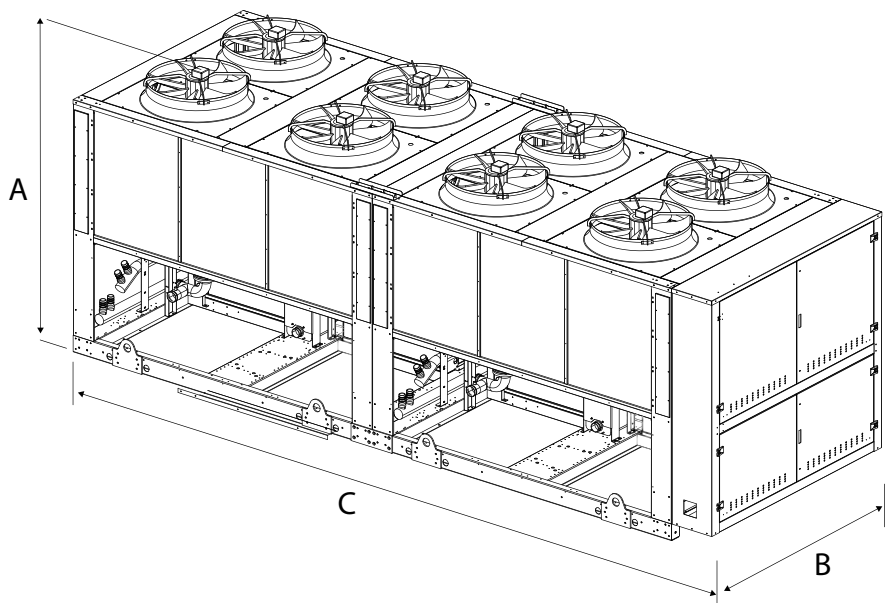
Cooling in Free-Cooling mode:

- entering water temperature 15°C;
- external air temperature 2°C;
- nominal water flow rate;
- compressors off.

Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



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

NRC

Air cooled chillers, heat pumps and condensing units with centrifugal fans
Capacities from 46 to 263 kW

R407C



Aermec participates in the EUROVENT programme:
LCP 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.
- **AERSET**
The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory: AER485 or MODU-485A
- **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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERSET	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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	4 5 6 7	8	9	10	11	12	13	14	15 16
Code	Size	Field of use	Model	Heat recovery	Version	Coil	Evaporator	Power supply	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)

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)

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

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	155	183	213	237	263
	L	46	54	62	70	81	89	110	126	141	168	193	215	237
Total input power (kW)	°	22,3	26,4	29,7	32,7	38,0	40,7	52,5	58,5	66,1	77,6	90,8	100,7	113,3
	L	23,0	26,6	30,0	33,5	40,3	43,3	47,9	54,4	62,5	73,0	83,6	94,6	105,2
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)	°	8772	10148	11524	13072	15308	16684	20640	23392	26832	31648	36808	40936	45408
	L	7911	9288	10664	12040	13932	15308	18920	21672	24424	28896	33368	37152	40936
Pressure drop (kPa)	°	39,0	33,0	34,0	45,0	28,6	23,5	32,0	28,3	36,5	27,8	35,6	30,3	30,6
	L	31,7	27,6	29,1	38,2	23,7	19,8	26,9	24,3	30,2	23,2	29,3	25,0	24,9
EER	°	2,27	2,22	2,24	2,31	2,33	2,37	2,28	2,32	2,35	2,36	2,35	2,36	2,32
	L	1,99	2,02	2,06	2,08	2,00	2,05	2,29	2,31	2,26	2,30	2,31	2,28	2,26
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.)		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
	L	540	500	520	500	510	510	520	520	500	500	580	530	600
Maximum current (A)		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)		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	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" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	V3"	V3"	V3"
Buffer tank capacity (l)		500	500	500	500	500	500	500	500	500	500	700	700	700
Available head (kPa) - gr1**	°	127	126	122	104	131	126	69	85	103	100	97	95	82
	L	139	138	131	116	146	140	93	104	126	117	116	115	106
Available head (kPa) - gr2**	°	160	160	155	138	171	171	148	176	123	217	212	209	194
	L	172	171	164	150	183	181	165	187	145	235	233	230	220
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	151	177	203	229	253
Total input power	kW	21,6	25,9	29,1	32,1	37,2	39,9	51,5	57,0	64,6	76,6	90,2	100,7	112,7
EER		2,26	2,19	2,22	2,29	2,30	2,35	2,28	2,34	2,34	2,32	2,25	2,28	2,25
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	8428	9804	11180	12728	14792	16168	20296	23048	26144	30616	35088	39560	43688
Pressure drop	kPa	36,0	30,8	32,0	42,7	26,7	22,1	30,9	27,5	34,7	26,0	32,4	28,3	28,3
Heating capacity	kW	60	69	80	90	104	115	141	160	181	214	247	276	304
Total input power	kW	22,84	26,88	30,08	33,09	38,64	41,48	52,25	57,65	64,99	75,71	87,59	97,91	108,29
COP		2,63	2,58	2,65	2,72	2,70	2,76	2,69	2,78	2,78	2,82	2,82	2,81	2,81
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	10262	11853	13622	15391	17867	19637	24059	27422	30960	36621	42281	47235	52188
Pressure drop	kPa	49,4	41,6	43,9	57,7	36,0	30,1	40,2	36,0	45,0	34,4	43,5	37,3	37,4
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" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	F/2" ¹ / ₂	V3"	V3"	V3"
Buffer tank capacity	l	500	500	500	500	500	500	500	500	500	500	700	700	700
Available head - gr1**	kPa	132	131	126	108	137	132	74	89	109	106	107	102	91
Available head - gr2**	kPa	165	165	160	142	176	175	151	178	129	224	223	217	204

* = M: male; F: female; V: Victaulic.

** = gr1 (Low head pump assembly); gr2 (High head pump assembly)

Data declared in accordance with UNI EN 14511:2011

Performance values refer to the following conditions:

Cooling

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

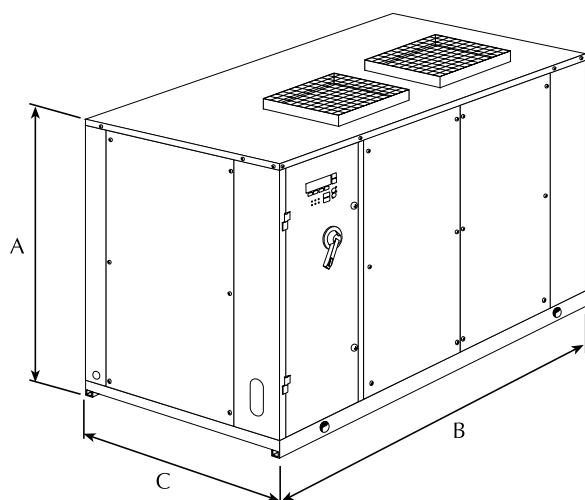
Heating

- leaving water temperature 50 °C
- external air temperature 7 °C db / 6 °C wb
- Δt = 5°C

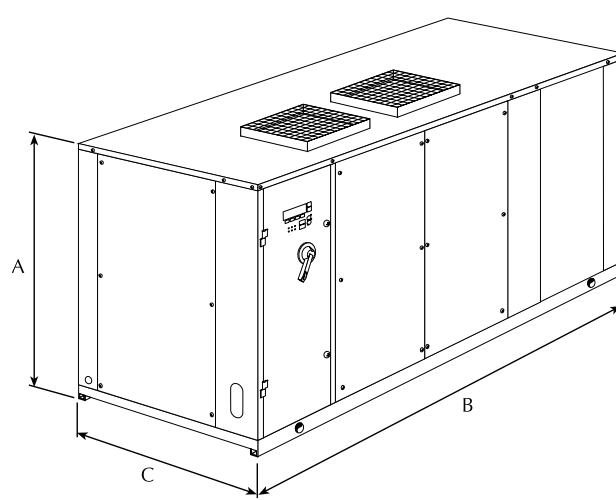
♪ Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

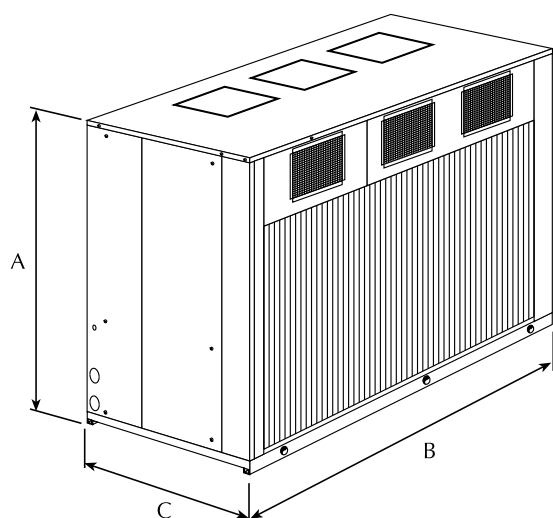
- Power supply: 400 V



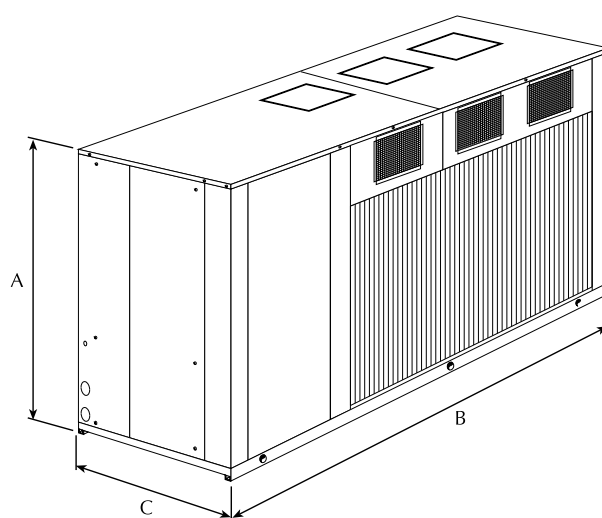
NRC 275 - 550 without buffer tank



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.

NS
1251/7203
only cooling

R134a



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

Chillers
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 237÷1600kW



- **STANDARD VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/3 REFRIGERANT CIRCUITS**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers
- Version**
 - NS_°** Standard chillers
 - NS_L** Low noise version
 - NS_A** High efficiency version
 - NS_E** High efficiency low noise version
- **Operational limits (1)**
 - max. external air temperature 48°C
- 1/3 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- Shell and tube evaporator optimised for refrigerant R134a.
- Pressure switch as standard supply
- Option integrated hydronic module, it consist of 1 or 2 pumps and 2 expansion tanks (25l.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint
- Options for partial or total heat recovery
- The low noise version "L/E" is equipped:
 - Compressor acoustical enclosure
 - Fan speed control (DCPX)
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- work with integrated GPRS modem;
- AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Low ambient device for cooling operation below 20°C down to -10°C. Standard for Versions D, L, and E.
- **AVX:** Spring anti-vibration mounts.
- Accessories factory fitted only**
 - **KRS:** Evaporator trace heating.
 - **KRSDES/KRSREC:** Evaporator and heat recovery exchangers trace heating.
 - **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
 - **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
 - **AK: ACUSTIC KIT (only for Versions L and E)**
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	%/L	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	%/L	KRS10	KRS10	KRS10	KRS10	KRS11	KRS11	KRS10	KRS10	KRS10	KRS10	KRS10	KRS10	KRS10	KRS10	KRS11	KRS12
KRS DES	(1) %/L	KRS10DES	KRS10DES	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS18DES	KRS19DES	KRS12DES
KRS REC	(1) %/L	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS11REC	KRS11REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS10REC	KRS11REC	KRS12REC
RIFNS	%/L	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
GP300M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300B	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400B	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500B	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+300M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2) %/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	%/L	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	%/L	KRS12	KRS12	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRS DES	(1) %/L	KRS12DES	KRS12DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KRS REC	(1) %/L	KRS12REC	KRS12REC	KRS12REC	KRS13REC	KRS13REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS15REC	KRS16REC	KRS16REC	KRS17REC	KRS17REC
RIFNS	%/L	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+500M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500M+500M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+300M+400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+400M+400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+400M+400M	%/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2) %/L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	A/E	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	A/E	KRS10	KRS10	KRS11	KRS10	KRS11	KRS11	KRS11	KRS11	KRS10	KRS10	KRS11	KRS11	KRS11	KRS11	KRS11	KRS13
KRS DES	(1) A/E	KRS10DES	KRS10DES	KRS11DES	KRS10DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
KRS REC	(1) A/E	KRS10REC	KRS10REC	KRS11REC	KRS10REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS10REC	KRS10REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS11REC	KRS13REC
RIFNS	A/E	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
GP300M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300B	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400B	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500B	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+300M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2) A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	A/E	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	A/E	KRS14	KRS13	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRS DES	(1) A/E	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KRS REC	(1) A/E	KRS14REC	KRS13REC	KRS12REC	KRS13REC	KRS13REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS14REC	KRS15REC	KRS16REC	KRS16REC	KRS17REC	KRS17REC
RIFNS	A/E	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M+400M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+400M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+500M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500M+500M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+400M+500M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP400M+500M+500M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP500M+500M+400M	A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AK	(2) A/E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
spring antivibration	%/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
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		509	509	507	508	508	516	516	532	533	533	534	517	515	515	523	523
spring antivibration	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
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		509	513	516	519	519	521	521	535	535	535	535	526	528	528	531	531

(1) The accessory comes standard with the electrical heater

(2) The accessory is only available for the low noise version "L/E"

(x2) the number in brackets indicates the quantity to order

DCPX ventilatori standard	°	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
	(3)	65(x1)	65(x1)	65(x1)	65(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)
DCPX	(3)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
	(3)	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
DCPX ventilatori standard	A	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
	(3)	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)
DCPX	(3)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
	(3)	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 ventilatori maggiorati	°	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
	(3)	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)
DCPX	(3)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
	(3)	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
DCPX ventilatori maggiorati	A	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
	(3)	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)
DCPX	(3)	3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
	(3)	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

(3) DCPX Accessory supplied as standard on Versions L, E, and D
(x1) the number in brackets indicates the quantity to order

Unit Configurator

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

Field Code

1,2 NS

3,4,5,6 Size

1251-1401-1601-1801-2101-2401 (single module 1 circuits)

1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits)

3002-3202-3402-3602-3902-4202-4502-4802-5002-5202-5402-5702 (double module 2 circuits)

6003-6303-6603-6903-7203 (three module 3 circuits)

7 Expansion valve:

° Standard (leaving water temperature down to 4°C)

Y Low temperature (Low leaving liquid from 0°C down to -6°C) (4)

X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures (5)

8 Model

° Cooling only

C Condensing unit (6)

9 Heat recovery

° Without recovery

D With Desuperheater

T With Total Recovery (7)

10 Version

° Standard

L Standard in low noise operation

A High efficiency

E High efficiency in low noise operation

11 Coil

° In aluminium

R In copper

S In tinned copper

V In painted aluminium-copper (epoxy paint)

12 Fans

° Standard

M High static pressure

J Inverter

13 Power supply

° 400V/3/50Hz with fuses

2 230V/3/50Hz with fuses (8)

4 230V/3/50Hz with circuit breakers (8)

5 500V/3/50Hz with fuses (9)(10)

8 400V/3/50Hz with circuit breakers

9 500V/3/50Hz with circuit breakers (9)(10)

14-15 Hydronic kit

00 Without hydronic kit

PA Hydronic pump (Pump A)

PB Hydronic pump (A Pump and reserve pump)

PC Hydronic pump (C Pump)

PD Hydronic pump (C Pump and reserve pump)

PE Hydronic pump (E Pump)

PF Hydronic pump (E Pump and reserve pump)

PG Hydronic pump (G Pump)

PH Hydronic pump (G Pump and reserve pump)

PJ Hydronic pump (J Pump)

PK Hydronic pump (J Pump and reserve pump)

(4) options D - T - C are not compatible with option Y

(5) sizes 5002-5202-5402-5702 are available only with electronic expansion valve "X"

(6) the condensing unit is not available with hydronic kit and options "D/T"

(7) The model with heat recovery is not available with hydronic kit

(8) 230V/3/50Hz is not available for size 1251÷2401/2352÷7203

(9) 500V/3/50Hz is not available for size 1801÷2401/3402÷7203

(10) 500V/3/50Hz is possible only with the options high static pressure fans "M".

Technical Data

Mod NS only cooling			1251	1401	1601	1801	2101	2401	1402	1602
Cooling capacity	°	kW	258	293	335	383	442	491	281	316
	L	kW	237	264	307	360	411	453	258	286
	A	kW	275	313	346	419	465	531	303	344
	E	kW	251	290	329	390	431	495	272	313
Total input power	°	kW	91,97	109,12	118,28	146,77	167,37	181,70	102,98	122,26
	L	kW	97,82	113,90	125,03	151,51	171,14	186,36	106,84	125,99
	A	kW	89,08	98,07	104,84	135,54	151,46	166,96	97,87	110,16
	E	kW	90,90	101,90	109,77	141,29	156,22	173,64	101,70	115,93
EER	°	W/W	2,81	2,68	2,83	2,61	2,64	2,70	2,73	2,58
	L	W/W	2,42	2,32	2,46	2,37	2,40	2,43	2,42	2,27
	A	W/W	3,09	3,19	3,30	3,09	3,07	3,18	3,10	3,12
	E	W/W	2,76	2,85	3,00	2,76	2,76	2,85	2,68	2,70
ESEER	°	W/W	3,81	3,75	3,70	3,73	3,78	3,76	3,88	3,72
	L	W/W	3,70	3,64	3,59	3,62	3,67	3,65	3,76	3,61
	A	W/W	4,22	4,24	4,30	4,24	4,20	4,28	4,20	4,22
	E	W/W	4,09	4,11	4,17	4,11	4,07	4,15	4,07	4,09
Water flow rate	°	l/h	44548	50568	57792	66220	76196	84796	48504	54524
	L	l/h	40936	45580	52976	62092	70864	78088	44548	49364
	A	l/h	47472	54008	59684	72240	80152	91676	52288	59340
	E	l/h	43344	50052	56760	67252	74304	85484	46956	54008
Total pressure drop	°	kPa	42	44	45	58	37	43	39	47
	L	kPa	35	36	38	51	32	36	33	39
	A	kPa	45	39	25	45	38	47	30	39
	E	kPa	38	33	23	39	33	41	24	32

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			1251	1401	1601	1801	2101	2401	1402	1602
Electrical data										
Total input current	(1)	° A	159	187	197	238	280	301	177	207
	(1)	L A	162	192	206	244	284	307	180	212
	(1)	A A	154	172	181	222	256	279	171	190
	(1)	E A	152	170	182	225	255	283	170	194
Maximum current (FLA)	°/L	A	212	236	236	331	348	388	269	309
	A/E	A	212	236	236	338	355	395	269	309
Starting current (LRA)	°/L	A	381	425	425	486	614	678	245	283
	A/E	A	381	425	425	493	621	685	245	283

Compressors

Compressors	type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
	n°	1	1	1	1	1	1	2	2
Circuits	n°	1	1	1	1	1	1	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant	type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a

System side exchanger

Exchanger	type	Shell and tube
	n°	1
hydraulic connections (in/out)	°/L Ø	4"
	A/E Ø	4"

Fans standard

Fans	type	axial	axial	axial	axial	axial	axial	axial	axial
	°/L n°	6	6	6	6	8	8	6	6
	A/E n°	6	6	6	8	10	10	6	6
Air flow rate cooling mode	° m³/h	116000	116000	110000	110000	150000	145000	116000	116000
	L m³/h	82000	82000	82000	82000	110000	104000	82000	82000
	A m³/h	110000	106000	106000	136000	180000	174000	106000	106000
	E m³/h	70000	74000	81500	94000	113000	118000	74000	77000

Hydronic kit system side

Useful static pressure	kPa	refer to the technical manual
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Sound data

Sound pressure	°	dB(A)	62	63	65	65	66	66	64	65
	L	dB(A)	54	55	57	57	58	58	56	57
	A	dB(A)	62	63	65	65	66	66	64	65
	E	dB(A)	54	55	57	57	58	58	56	57
Sound power	°	dB(A)	94	95	97	97	98	98	96	97
	L	dB(A)	86	87	89	89	90	90	88	89
	A	dB(A)	94	95	97	97	98	98	96	97
	E	dB(A)	86	87	89	89	90	90	88	89
Power supply	V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS			1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	°	kW	357	403	449	484	501	539	576	*627
	L	kW	324	371	419	442	457	493	528	571
	A	kW	396	448	493	517	541	575	*610	*659
	E	kW	363	409	452	477	501	537	572	*621
Total input power	°	kW	139,55	155,24	172,32	178,84	188,96	203,98	218,32	227,13
	L	kW	143,22	161,02	182,25	186,46	199,57	212,57	231,88	238,70
	A	kW	128,19	145,60	158,57	167,74	174,95	184,13	199,52	202,70
	E	kW	130,95	151,28	162,27	172,42	182,59	193,80	209,12	211,44
EER	°	W/W	2,55	2,59	2,60	2,71	2,65	2,64	2,64	2,76
	L	W/W	2,26	2,30	2,30	2,37	2,29	2,32	2,28	2,39
	A	W/W	3,09	3,08	3,11	3,08	3,09	3,12	3,05	3,25
	E	W/W	2,77	2,70	2,78	2,76	2,75	2,77	2,73	2,93
ESEER	°	W/W	3,69	3,59	3,56	3,82	3,81	3,73	3,78	3,68
	L	W/W	3,58	3,48	3,45	3,71	3,70	3,62	3,67	3,57
	A	W/W	4,20	4,23	4,24	4,23	4,25	4,25	4,21	4,28
	E	W/W	4,07	4,10	4,11	4,10	4,12	4,12	4,08	4,15
Water flow rate	°	l/h	61576	69488	77400	83592	86516	93052	99416	108188
	L	l/h	55900	63984	72240	76196	78948	85140	91160	98556
	A	l/h	68284	77400	85140	89268	93396	99244	105264	113692
	E	l/h	62608	70520	77916	82216	86516	92708	98728	106984
Pressure drop	°	kPa	53	36	35	48	50	47	53	44
	L	kPa	44	31	35	40	42	39	45	37
	A	kPa	35	44	39	42	46	48	55	32
	E	kPa	29	37	33	36	39	42	48	28

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			1802	2002	2202	2352	2502	2652	2802	3002
Electrical data										
Total input current	(1)	°	A	218	261	295	306	322	347	384
	(1)	L	A	221	266	301	310	333	354	398
	(1)	A	A	215	248	274	288	301	320	339
	(1)	E	A	214	247	277	290	303	320	344
Maximum current (FLA)	°/L	A	345	372	392	425	458	458	458	472
	A/E	A	352	379	399	432	465	465	465	472
Starting current (LRA)	°/L	A	325	403	420	480	507	551	553	567
	A/E	A	332	410	427	487	514	558	560	567

Compressors

Compressors	type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
	n°	2	2	2	2	2	2	2	2	2
Circuits	n°	2	2	2	2	2	2	2	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant	type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a

System side exchanger

Exchanger	type				Shell and tube					
	n°	1	1	1	1	1	1	1	2	
hydraulic connections (in/out)	°/L	Ø	4"	4"	4"	4"	4"	4"	4"	4"/4"
	A/E	Ø	4"	4"	4"	4"	4"	4"	4"	4"/4"

Fans standard

Fans	type	axial	axial	axial	axial	axial	axial	axial	axial	axial
	°/L	n°	6	8	8	8	8	8	8	12
	A/E	n°	8	10	10	10	10	10	10	12
Air flow rate cooling mode	°	m³/h	110000	145000	145000	145000	145000	152000	152000	226000
	L	m³/h	82000	104000	104000	104000	104000	108000	108000	164000
	A	m³/h	144000	187500	180000	176500	173000	173000	173000	212000
	E	m³/h	96000	124500	120000	123000	126000	130000	136000	155500

Hydronic kit system side

Useful static pressure	kPa	refer to the technical manual
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Sound data

Sound pressure	°	dB(A)	65	66	66	65	66	66	66	66
	L	dB(A)	57	58	58	58	58	59	59	57
	A	dB(A)	65	66	66	65	66	66	66	66
	E	dB(A)	57	58	58	58	58	58	59	57
Sound power	°	dB(A)	97	98	98	97	98	98	98	99
	L	dB(A)	89	90	90	90	90	90	91	90
	A	dB(A)	97	98	98	97	98	98	98	99
	E	dB(A)	89	90	90	90	90	90	91	90
Power supply	V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

* Not certified model EUROVENT

(1) The electrical data of the versions without hydronic module integrated; (2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS			*3202	*3402	*3602	*3902	*4202	*4502	*4802	*5002
Cooling capacity	°	kW	669	718	768	825	876	933	984	1060
	L	kW	614	667	719	771	812	864	905	982
	A	kW	694	765	836	882	950	996	1063	1152
	E	kW	659	719	780	820	885	925	991	1085
Total input power	°	kW	236,99	264,67	293,21	313,80	327,16	347,76	362,07	393,08
	L	kW	249,60	276,20	302,72	322,34	337,61	357,25	372,45	407,50
	A	kW	209,44	240,08	270,78	286,68	301,16	317,10	332,54	363,45
	E	kW	219,28	250,78	282,31	297,20	314,64	329,56	346,97	378,93
EER	°	W/W	2,82	2,71	2,62	2,63	2,68	2,68	2,72	2,70
	L	W/W	2,46	2,41	2,38	2,39	2,41	2,42	2,43	2,41
	A	W/W	3,31	3,19	3,09	3,08	3,15	3,14	3,19	3,17
	E	W/W	3,00	2,87	2,76	2,76	2,81	2,81	2,86	2,86
ESEER	°	W/W	3,68	3,68	3,68	3,73	3,73	3,73	3,67	3,71
	L	W/W	3,57	3,57	3,57	3,62	3,62	3,62	3,56	3,60
	A	W/W	4,30	4,26	4,19	4,18	4,24	4,17	4,17	4,25
	E	W/W	4,17	4,13	4,06	4,05	4,11	4,04	4,04	4,12
Water flow rate	°	l/h	115412	124012	132612	142416	151188	160992	169764	182836
	L	l/h	105952	115068	124184	132956	140180	148952	156004	169248
	A	l/h	119540	131924	144308	152220	163916	171828	183352	198660
	E	l/h	113520	124012	134504	141384	152736	159616	170968	187136
Pressure drop	°	kPa	38	50	58	46	50	40	43	40
	L	kPa	32	43	51	40	43	34	36	34
	A	kPa	25	35	45	41	46	43	47	42
	E	kPa	23	31	39	35	40	37	41	37

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			*3202	*3402	*3602	*3902	*4202	*4502	*4802	*5002
Electrical data										
Total input current	(1)	° A	394	435	477	519	540	582	603	648
	(1)	L A	411	450	488	527	551	591	613	670
	(1)	A A	362	403	444	478	501	535	558	614
	(1)	E A	364	407	450	480	508	538	566	626
Maximum current (FLA)	°/L	A	472	567	662	679	719	736	776	866
	A/E	A	472	574	676	693	733	750	790	880
Starting current (LRA)	°/L	A	567	628	654	778	825	900	900	1051
	A/E	A	567	635	661	792	839	914	914	1065

Compressors

Compressors	type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
	n°	2	2	2	2	2	2	2	2
Circuits	n°	2	2	2	2	2	2	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant	type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a

System side exchanger

Exchanger	type	Shell and tube
	n°	2
hydraulic connections (in/out)	°/L Ø	4"/4"
	A/E Ø	4"/4"

Fans standard

Fans	type	axial	axial	axial	axial	axial	axial	axial	axial
	°/L n°	12	12	12	14	14	16	16	16
	A/E n°	12	14	16	18	18	20	20	20
Air flow rate cooling mode	°	m³/h	220000	220000	220000	260000	255000	295000	290000
	L	m³/h	164000	164000	164000	192000	186000	214000	208000
	A	m³/h	212000	242000	272000	316000	310000	354000	348000
	E	m³/h	163000	175500	188000	207000	212000	231000	254000

Hydronic kit system side

Useful static pressure	kPa	refer to the technical manual
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Sound data

Sound pressure	°	dB(A)	66	66	66	67	67	67	67	68
	L	dB(A)	58	58	59	59	59	59	59	60
	A	dB(A)	66	66	66	67	67	67	67	68
	E	dB(A)	58	58	59	59	59	59	59	60
Sound power	°	dB(A)	99	99	99	100	100	100	100	101
	L	dB(A)	91	91	92	92	92	92	92	93
	A	dB(A)	99	99	99	100	100	100	100	101
	E	dB(A)	91	91	92	92	92	92	92	93
Power supply	V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

* Not certified model EUROVENT

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS			*5202	*5402	*5702	*6003	*6303	*6603	*6903	*7203
Cooling capacity	°	kW	1140	1185	1230	1264	1321	1372	1430	1480
	L	kW	1060	1105	1150	1176	1227	1268	1319	1361
	A	kW	1244	1287	1330	1372	1419	1486	1532	1600
	E	kW	1160	1198	1236	1278	1319	1384	1425	1490
Total input power	°	kW	420	432	444	469	490	504	525	539
	L	kW	440	454	467	485	505	520	540	555
	A	kW	390	408	426	432	448	463	479	494
	E	kW	407	426	444	452	467	484	499	516
EER	°	W/W	2,71	2,74	2,77	2,69	2,69	2,72	2,72	2,75
	L	W/W	2,41	2,44	2,46	2,43	2,43	2,44	2,44	2,45
	A	W/W	3,19	3,15	3,12	3,18	3,17	3,21	3,20	3,24
	E	W/W	2,85	2,82	2,78	2,83	2,82	2,86	2,86	2,89
ESEER	°	W/W	3,71	3,69	3,69	3,76	3,78	3,76	3,81	3,76
	L	W/W	3,60	3,58	3,58	3,65	3,67	3,65	3,70	3,65
	A	W/W	4,26	4,20	4,15	4,28	4,25	4,28	4,29	4,28
	E	W/W	4,13	4,07	4,03	4,15	4,12	4,15	4,16	4,15
Water flow rate	°	l/h	196082	203822	211562	217410	227210	235980	245960	254560
	L	l/h	182322	190062	197802	202270	211040	218100	226870	234090
	A	l/h	213970	221366	228763	235980	244070	255589	263500	275200
	E	l/h	199522	206058	212594	219820	226870	238050	245100	256280
Pressure drop	°	kPa	36	39	42	53	46	48	41	43
	L	kPa	31	34	37	46	40	41	35	36
	A	kPa	37	39	42	45	43	46	44	47
	E	kPa	32	34	36	39	37	40	38	41

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			*5202	*5402	*5702	*6003	*6303	*6603	*6903	*7203
Electrical data										
Total input current	(1)	°	A	693	715	736	778	820	841	883
	(1)	L	A	726	750	774	795	834	858	898
	(1)	A	A	655	685	715	723	757	780	814
	(1)	E	A	670	700	735	733	763	791	821
Maximum current (FLA)	°/L	A	924	968	1012	1050	1067	1107	1124	1164
	A/E	A	938	975	1012	1071	1088	1128	1145	1185
Starting current (LRA)	°/L	A	1109	1228	1227	1013	1072	1064	1122	1122
	A/E	A	1123	1235	1227	1034	1093	1085	1143	1143

Compressors

Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	3	3	3	3	3
Circuits		n°	2	2	2	3	3	3	3	3
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a

System side exchanger

Exchanger		type	Shell and tube							
		n°								
hydraulic connections (in/out)	°/L	Ø	6"/6"	6"/6"	6"/6"	4"/4"/5"	4"/4"/5"	4"/5"/5"	4"/5"/5"	5"/5"/5"
	A/E	Ø	6"/6"	6"/6"	6"/6"	4"/4"/5"	4"/5"/5"	4"/5"/5"	5"/5"/5"	5"/5"/5"

Fans standard

Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
	°/L	n°	16	18	20	20	22	22	24	24
	A/E	n°	20	20	20	26	28	28	30	30
Air flow rate cooling mode	°	m³/h	304000	324000	360000	365000	405000	400000	440000	435000
	L	m³/h	216000	240000	267000	268000	296000	290000	318000	312000
	A	m³/h	346000	346000	346000	446000	490000	484000	528000	522000
	E	m³/h	272000	283500	295000	306000	325000	330000	349000	354000

Hydronic kit system side

Useful static pressure	kPa	refer to the technical manual								
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Sound data

Sound pressure	°	dB(A)	68	68	68	68	68	68	69	68
	L	dB(A)	60	60	60	60	60	60	60	61
	A	dB(A)	68	68	68	68	68	68	68	68
	E	dB(A)	60	60	60	60	60	60	59	60
Sound power	°	dB(A)	101	101	101	101	101	101	102	102
	L	dB(A)	93	93	93	93	93	93	93	94
	A	dB(A)	101	101	101	101	101	101	102	102
	E	dB(A)	93	93	93	93	93	93	93	94
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

* Not certified model EUROVENT

(1) The electrical data of the versions without hydronic module integrated; (2) Standard expansion valve

Sound power

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

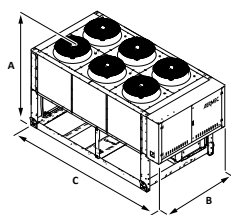
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

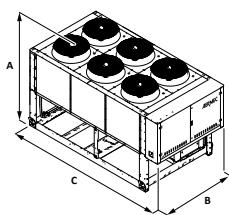
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

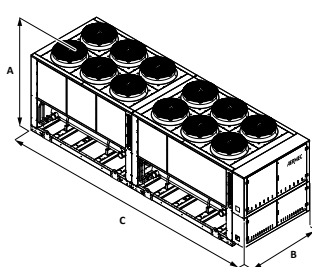
NS1251÷2401
(single module 1 circuits)



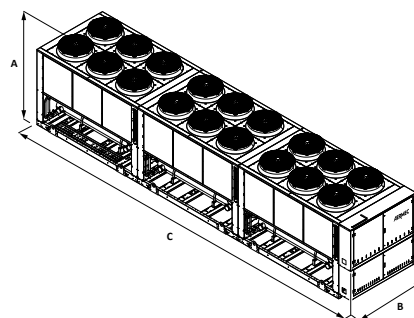
NS1402÷2802
(single module 2 circuits)



NS3002÷5702
(double module 2 circuits)



NS6003÷7203
(three module 3 circuits)



Mod. NS		Vers		1251	1401	1601	1801	2101	2401	1402	1602
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	%L	3780	3780	3780	3780	4770	4770	3780	3780
			A/E	3780	3780	3780	4770	5750	5750	3780	3780
Weight when empty	(kg)		%L	2910	3060	3150	3650	4230	4570	3250	3270
			A/E	3050	3230	3250	4330	4920	5150	3420	3560
Mod. NS		Vers		1802	2002	2202	2352	2502	2652	2802	3002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	%L	3780	4770	4770	4770	4770	5750	5750	7160
			A/E	4770	5750	5750	5750	5750	5750	5750	7160
Weight when empty	(kg)		%L	3460	4270	4740	4800	4900	5320	5330	6180
			A/E	3900	4700	5270	5390	5500	5510	5520	6450
Mod. NS		Vers		3202	3402	3602	3902	4202	4502	4802	5002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	%L	7160	7160	7160	8150	8150	9140	9140	10120
			A/E	7160	8150	9140	10120	10120	11100	11100	11100
Weight when empty	(kg)		%L	6270	6770	7280	7830	8180	8750	9090	9360
			A/E	6520	7540	8610	9180	9410	9820	10200	10450
Mod. NS		Vers		5202	5402	5702	6003	6303	6603	6903	7203
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	%L	11100	11100	11100	11530	12520	12520	13510	13510
			A/E	11100	11100	11100	14490	15470	15470	16450	16450
Weight when 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.

NSH 1251/2002 pompa di calore

R134a



AERMEC participates in the EUROVENT programme for LCP up to 600 kW. Check ongoing validity of certificate online: www.eurovent-certification.com

Reversible heat pumps
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 236÷732kW
Heating capacity 275÷786kW



- **STANDARD VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/2 REFRIGERANT CIRCUIT**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**
- **ELECTRONIC EXPANSION VALVE**

Characteristics

- Reversible heat pumps
- Version**
 - NS_H** Standard version
 - NS_HL** Standard low noise version
 - NS_HA** High efficiency version
 - NS_HE** High efficiency low noise version
- **Operational limits (1)**
 - max. external air temperature 48°C in cooling mode
 - Maximum leaving water temperature 55°C in heating mode
- 1/2 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 25 to 100%.
- Electronic expansion valve as a standard
- Economiser circuit with plate heat exchanger for improved performance, particularly at high compression ratios, as experienced in heating mode at low ambients
- Generously sized refrigerant circuit for minimum pressure drop
- Shell and tube evaporator optimised for refrigerant R134a.
- Pressure switch as standard supply
- Option integrated hydronic module, it consists of 1 or 2 pumps and 2 expansion tanks (25L.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint
- Options for partial or total heat recovery
- The low noise version "L/E" is equipped:
 - Compressor acoustical enclosure
 - Fan speed control (DCPX)
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- work with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Low ambient device for cooling operation below 20°C down to -10°C.
- **AVX:** Supporti anti-vibranti a molla.
- reduction of input current.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **AK: ACUSTIC 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.

Accessories factory fitted only

- **KRS:** Evaporator trace heating.
- **KRSDES/KRSREC:** Evaporator and heat recovery exchangers trace heating.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10%

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1	Alls	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1) Alls	69	69	69	69	68	68	68	73	73	73	73	73	73	73	73	73	73

Spring antivibration for unit without Hydronik kit "00"

AVX	H/HL	536	536	536	539	537	538	541	542	544	545	547	549	549	552	552	557	558
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Spring antivibration for unit with Hydronik kit

AVX	PA	H/HL	536	536	536	539	537	538	541	543	544	546	547	549	550	553	553	557	558
AVX	PC	H/HL	536	536	536	540	537	538	541	543	544	546	547	549	550	553	555	557	558
AVX	PE	H/HL	536	536	536	540	537	538	541	543	544	546	547	549	550	553	555	557	558
AVX	PG	H/HL	536	536	536	540	538	538	541	543	544	546	548	550	550	553	555	557	558
AVX	PJ	H/HL	536	536	536	540	538	538	541	543	544	546	548	550	550	553	555	557	558

Spring antivibration for unit without Hydronik kit "00"

AVX	HA/HE	536	536	536	540	537	538	541	543	543	545	549	551	551	554	556	557	559
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Spring antivibration for unit with Hydronik kit

AVX	PA	HA/HE	536	536	536	540	537	538	541	543	543	545	550	551	551	553	553	557	559
AVX	PC	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PE	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PG	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PJ	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559

Accessories factory fitted only

KRS		KRS11	KRS11	KRS11	KRS11	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS14	KRS14	KRS14	KRS14
KRS_DES	(2)	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES
RIFNSH		1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
GP300M		•	•	•															
GP400M					•														
GP300B						•	•												
GP400B								•											
GP500B									•	•	•	•	•	•					
GP300M+300M															•	•			
GP300M+400M																		•	
GP400M+400M																			•
AK	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) IDCPIX Accessory supplied as standard on Versions L, E, and D

(2) Accessory comes standard with the electrical heater for evaporator and desuperheater

(3) Accessory is only available for the low noise version "L/E"

(x2) the number in brackets indicates the quantity to order

Unit Configurator

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

Field	Code
1,2	NS
3,4,5,6	Size 1251-1401-1601-1801 (single module 1 circuits) 1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits) 3002-3202-3402-3602 (double module 2 circuits)
7	Expansion valve: X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
8	Model H Heat pumps
9	Heat recovery ° Without recovery D With Desuperheater
10	Version ° Standard L Standard in low noise operation A High efficiency E High efficiency in low noise operation
11	Coil ° In aluminium R In copper S In tinned copper V In painted aluminium-copper (epoxy paint)
12	Fans ° Standard J Inverter
13	Power supply ° 400V/3/50Hz with fuses 2 230V/3/50Hz with fuses ⁽⁴⁾ 4 230V/3/50Hz with circuit breakers ⁽⁴⁾ 5 500V/3/50Hz with fuses ⁽⁵⁾ 8 400V/3/50Hz with circuit breakers 9 500V/3/50Hz with circuit breakers ⁽⁵⁾
14-15	Hydronic kit 00 Without hydronic kit PA Hydronic pump (Pump A) PC Hydronic pump (Pump C) PE Hydronic pump (Pump E) PG Hydronic pump (Pump G) PJ Hydronic pump (Pump J)

(4) 230V/3/50Hz is not available for size 1251÷1801/2352÷3602

(5) 500V/3/50Hz is not available for size 1801-3402-3602

Technical Data

Mod NS_H Heat pump			1251	1401	1601	1801	1402	1602	1802	2002
Cooling capacity	H	kW	244	260	296	353	241	298	342	366
	HL	kW	235	250	280	335	227	285	327	354
	HA	kW	262	281	309	365	257	315	365	384
	HE	kW	250	266	291	343	242	301	349	366
Total input power	H	kW	91,82	100,7	111,02	135	97,8	111,9	131,18	135,38
	HL	kW	94,77	105,64	116,92	140,94	100,72	118,84	138,06	138,29
	HA	kW	86,93	95,02	107,82	128,32	94,88	108,33	125,32	132,49
	HE	kW	91,8	101,92	115,73	136,13	100,8	116,19	132,17	140,32
EER	H	W/W	2,66	2,59	2,67	2,61	2,47	2,66	2,61	2,7
	HL	W/W	2,48	2,37	2,4	2,38	2,26	2,4	2,37	2,56
	HA	W/W	3,01	2,96	2,87	2,84	2,71	2,9	2,91	2,89
	HE	W/W	2,73	2,61	2,52	2,52	2,4	2,59	2,64	2,61
ESEER	H	W/W	3,15	3,04	3,14	3,07	3,02	3,25	3,18	3,29
	HL	W/W	3,09	2,94	2,97	2,96	2,9	3,07	3,05	3,27
	HA	W/W	3,51	3,44	3,31	3,3	3,23	3,48	3,49	3,48
	HE	W/W	3,36	3,21	3,09	3,1	3,05	3,29	3,33	3,3
Water flow rate	H	l/h	42140	44892	51084	60888	41624	51428	58996	63124
	HL	l/h	40592	43172	48332	57792	39216	49192	56416	61060
	HA	l/h	45236	48504	53320	62952	44376	54352	62952	66220
	HE	l/h	43172	45924	50224	59168	41796	51944	60200	63124
Total pressure drop	H	kPa	34	25	39	32	33	32	40	45
	HL	kPa	32	23	35	30	30	30	37	43
	HA	kPa	38	41	27	43	36	50	43	47
	HE	kPa	32	37	24	38	33	46	39	43
Heating capacity	HA/HE	kW	276	292	337	382	273	341	381	412
	HA/HE	kW	282	298	333	394	282	344	397	413
Total input power	HA/HE	kW	93,08	98,9	111,37	130,21	97,99	113,21	129,5	142,8
	HA/HE	kW	88,07	94,16	103,94	126,59	93,07	106,63	123,6	133,76
COP	HA/HE	W/W	2,97	2,95	3,03	2,94	2,79	3,01	2,95	2,88
	HA/HE	W/W	3,2	3,17	3,2	3,12	3,03	3,22	3,21	3,09
Water flow rate	HA/HE	l/h	47300	50052	57792	65532	46784	58480	65360	70520
	HA/HE	l/h	48332	51084	57104	67596	48332	58824	67940	70864
Total pressure drop	HA/HE	kPa	42	30	49	37	41	42	48	55
	HA/HE	kPa	43	45	30	49	43	59	50	54

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

Technical Data

GENERAL DATA			1251	1401	1601	1801	1402	1602	1802	2002	
Electrical data											
Total input current cooling mode	(1)	H	A	157	174	189	226	173	192	225	232
	(1)	HL	A	166	185	204	242	182	207	241	245
	(1)	HA	A	149	164	185	215	168	186	216	227
	(1)	HE	A	161	178	202	234	181	202	233	246
Total input current heating mode	(1)	H/HL	A	159	171	189	218	173	193	223	242
	(1)	HA/HE	A	150	163	180	212	165	182	213	229
Maximum current (FLA)		H/HL	A	209	242	258	316	276	276	325	352
		HA/HE	A	209	242	258	316	276	276	325	352
Starting current (LRA)		H/HL	A	327	387	431	472	251	251	305	313
		HA/HE	A	327	387	431	472	251	251	305	313
Compressors											
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	
		n°	1	1	1	1	2	2	2	2	
Circuits		n°	1	1	1	1	2	2	2	2	
Capacity control	(2)	%	40-100	40-100	40-100	40-100	20-100	20-100	20-100	20-100	
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	
System side exchanger											
Exchanger		type	Shell and tube								
		n°	1	1	1	1	2	2	2	2	
hydraulic connections (in/out)	Alls	Ø	6"	6"	6"	6"	6"	6"	6"	6"	
Fans standard											
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	
	Alls	n°	6	6	6	8	6	6	8	10	
Air flow rate cooling mode		H	m³/h	128400	128400	120000	171200	128400	120000	171200	214000
		HL	m³/h	89880	89880	84000	119840	89880	84000	119840	149800
		HA	m³/h	117600	117600	112200	156000	117600	112200	153200	196000
		HE	m³/h	82320	117600	78540	109200	82320	78540	107240	137200
Hydronic kit system side						refer to the technical manual					
Useful static pressure			kPa refer to the technical manual								
Sound data											
Sound pressure		H/HA	dB(A)	61,5	61,5	62,5	63,5	62,0	63,0	63,5	64,0
		HL/HE	dB(A)	56,5	56,5	57,5	58,5	57,0	58,0	58,5	59,0
Sound power		H/HA	dB(A)	93,5	93,5	94,5	96,0	94,0	95,0	96,0	96,5
		HL/HE	dB(A)	88,5	88,5	89,5	91,0	89,0	90,0	91,0	91,5
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Electronic expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS_H Heat pump			2202	2352	2502	2652	2802	3002	3202	*3402	*3602
Cooling capacity	H	kW	394	432	465	490	518	556	592	649	706
	HL	kW	380	414	444	468	491	531	560	615	670
	HA	kW	413	454	498	523	546	590	*619	674	730
	HE	kW	393	435	486	505	516	559	585	635	686
Total input power	H	kW	145	167	183	194	198	222	222	246	270
	HL	kW	149	175	193	205	211	222	233	258	282
	HA	kW	139	158	173	187	196	203	215	236	256
	HE	kW	146	169	192	202	211	217	231	252	272
EER	H	W/W	2,71	2,58	2,54	2,53	2,61	2,5	2,67	2,64	2,62
	HL	W/W	2,55	2,36	2,3	2,28	2,33	2,39	2,4	2,39	2,38
	HA	W/W	2,98	2,86	2,87	2,8	2,79	2,91	2,87	2,86	2,85
	HE	W/W	2,68	2,57	2,53	2,5	2,45	2,57	2,53	2,53	2,52
ESEER	H	W/W	3,30	3,12	3,07	3,05	3,17	3,09	3,14	3,10	3,07
	HL	W/W	3,26	3,04	2,95	2,92	2,98	2,97	2,98	2,96	2,96
	HA	W/W	3,56	3,41	3,44	3,36	3,33	3,37	3,31	3,31	3,30
	HE	W/W	3,40	3,25	3,18	3,15	3,11	3,15	3,09	3,08	3,09
Water flow rate	H	l/h	67940	74476	80324	84452	89268	95976	102168	111972	121776
	HL	l/h	65532	71380	76712	80668	84624	91504	96664	106124	115584
	HA	l/h	71380	78260	86000	90300	94256	101824	106640	116272	125904
	HE	l/h	67940	74992	83936	87204	89096	96320	100792	109564	118336
Total pressure drop	H	kPa	40	35	41	23	25	32	39	35	32
	HL	kPa	37	34	38	21	22	29	35	32	30
	HA	kPa	53	37	38	40	43	34	27	35	43
	HE	kPa	48	34	35	37	39	30	24	31	38
Heating capacity	HA/HE	kW	437	481	525	557	589	629	674	719	764
	HA/HE	kW	452	504	543	565	587	631	666	727	789
Total input power	HA/HE	kW	147	166	177	186	195	210	222	241	260
	HA/HE	kW	141	158	171	177	185	198	208	230	253
COP	HA/HE	W/W	2,98	2,90	2,97	2,99	3,01	3,00	3,03	2,98	2,94
	HA/HE	W/W	3,20	3,19	3,18	3,19	3,17	3,19	3,21	3,16	3,12
Water flow rate	HA/HE	l/h	74820	82388	89956	95632	101136	107844	115584	123324	131064
	HA/HE	l/h	77400	86344	93052	96836	100620	108188	114208	124700	135192
Total pressure drop	HA/HE	kPa	47	43	46	29	32	39	49	43	37
	HA/HE	kPa	62	45	43	45	49	38	30	40	50

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

* Not certified model EUROVENT

GENERAL DATA			2202	2352	2502	2652	2802	3002	3202	3402	3602	
Electrical data												
Total input current cooling mode	(1)	H	A	245	283	310	330	340	363	378	415	453
	(1)	HL	A	259	302	333	354	368	389	407	445	484
	(1)	HA	A	233	268	295	318	335	349	370	400	430
	(1)	HE	A	254	293	333	349	365	380	403	436	468
Total input current heating mode	(1)	H/HL	A	246	279	301	319	335	360	378	407	436
	(1)	HA/HE	A	236	267	292	303	318	342	359	391	423
Maximum current (FLA)		H/HL	A	370	390	410	443	476	500	516	574	631
		HA/HE	A	370	390	410	443	476	500	516	574	631
Starting current (LRA)		H/HL	A	350	365	436	461	521	534	578	612	653
		HA/HE	A	350	365	436	461	521	534	578	612	653
Compressors												
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2	2	2
Capacity control	(2)	%	20-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100	20-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger												
Exchanger		type	Shell and tube									
		n°	1	1	1	1	1	2	2	2	2	
hydraulic connections (in/out)	Alls	Ø	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
Fans standard												
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
	Alls	n°	10	10	10	10	10	12	12	14	16	
Air flow rate cooling mode		H	m³/h	214000	214000	214000	207000	200000	248400	240000	291200	342400
		HL	m³/h	149800	149800	149800	144900	140000	173880	168000	203840	239680
		HA	m³/h	196000	196000	196000	191500	187000	229800	224400	268200	312000
		HE	m³/h	137200	137200	137200	134050	130900	196140	157080	187740	218400
Hydronic kit system side						refer to the technical manual						
Useful static pressure			kPa									
Sound data												
Sound pressure		H/HA	dB(A)	64,0	64,0	64,5	64,5	64,5	64,0	65,0	65,5	66,0
		HL/HE	dB(A)	59,0	59,0	59,5	59,5	59,5	59,0	60,0	60,5	61,0
Sound power		H/HA	dB(A)	96,5	96,5	97,0	97,0	97,0	97,0	97,5	98,5	99,0
		HL/HE	dB(A)	91,5	91,5	92,0	92,0	92,0	92,0	92,5	93,5	94,0
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Electronic expansion valve

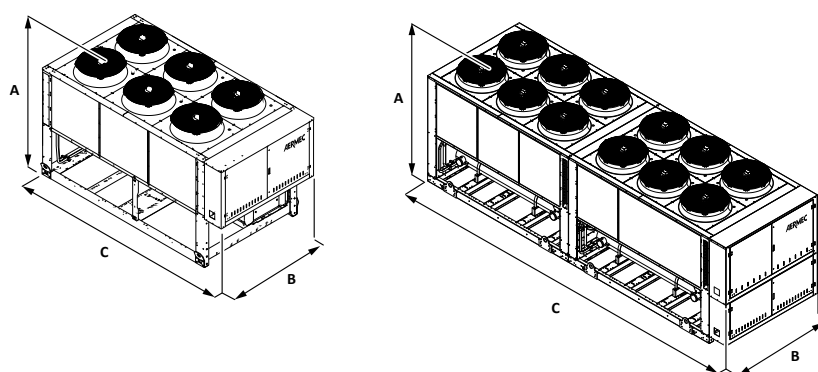
Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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



Mod. NS_H		Vers	1251	1401	1601	1801	1402	1602	1802	2002	2202
Height	(mm)	A	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	3780	3780	3780	4770	3780	3780	4770	5750	5750
Weight when empty	(kg)	H/HL	3150	3165	3340	4005	3475	3800	3930	4290	4355
		HA/HE	3245	3280	3435	4115	3570	3835	4005	4385	4570

Mod. NS_H		Vers	2352	2502	2652	2802	3002	3202	3402	3602
Height	(mm)	A	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	5750	5750	5750	5750	7160	7160	8150	9140
Weight when empty	(kg)	H/HL	4735	5090	5210	5330	6330	6555	7220	7885
		HA/HE	4940	5265	5470	5610	6540	6745	7425	8105

NS

1251/7203
free-cooling

R134a

Chillers with freecooling
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 243÷1554kW



- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/3 REFRIGERANT CIRCUITS**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers with freecooling
- Version**
- NS_FA** High efficiency version
- NS_FE** High efficiency low noise version
- **Operational limits (1)**
 - max. external air temperature 46°C
- 1/3 circuiti frigoriferi
- 1/3 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- Shell and tube evaporator optimised for refrigerant R134a
- Electronic expansion valve standard in size 5002 to 5702
- Pressure switch as standard supply
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-cooling coil
- Partial heat recovery (option) desuperheater
- Option integrated hydronic module, it consist of 1 or 2 pumps and 2 expansion tanks (25l.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint
- Fan speed control standard (DCPX)
- The low noise version "E" is equipped:
 - Compressor acoustical enclosure
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.
- Accessories factory fitted only**
 - **KRSDS:** Evaporator and heat recovery exchangers trace heating.
 - **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
 - **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
 - **AK: ACUSTIC KIT (only for Versions E)**
 - This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	Alls	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS_DES	(1) Alls	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
RIFNS	Alls	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002F
GP300M	Alls	•	•	•													
GP400M	Alls				•												
GP500M	Alls					•	•										
GP300B	Alls							•	•								
GP400B	Alls									•							
GP500B	Alls										•	•	•	•	•	•	
GP300M+300M	Alls																•
AK	(2) FE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	Alls	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS_DES	(1) Alls	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
RIFNS	Alls	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	Alls	•															
GP300M+400M	Alls		•														
GP400M+400M	Alls			•													
GP400M+500M	Alls				•	•											
GP500M+500M	Alls						•	•	•	•	•	•					
GP400M+400M+500M	Alls												•				
GP400M+500M+500M	Alls													•	•		
GP500M+500M+400M	Alls															•	•
AK	(2) FE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
spring antivibration		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
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		507	513	516	518	518	521	521	560	560	560	560	525	527	527	530	530

(1) The accessory comes standard with the electrical heater

(2) The accessory is only available for the low noise version "E"

(x2) the number in brackets indicates the quantity to order

Unit Configurator

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

Field	Code
1,2	NS
3,4,5,6	Size
	1251-1401-1601-1801-2101-2401 (single module 1 circuits)
	1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits)
	3002-3202-3402-3602-3902-4202-4502-4802-5002-5202-5402-5702 (double module 2 circuits)
	6003-6303-6603-6903-7203 (three module 3 circuits)
7	Expansion valve:
	° Standard (leaving water temperature down to 4°C)
Y	Low temperature (Low leaving liquid from 0°C down to -6°C) (3)
X	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures (4)
8	Model
F	Freecooling
9	Heat recovery
	° Without recovery
D	With Desuperheater (5)
10	Version
A	High efficiency
E	High efficiency in low noise operation
11	Coil
	° In aluminium
R	In copper
S	In tinned copper
V	In painted aluminium-copper (epoxy paint)
12	Fans
	° Standard
M	High static pressure (6)
J	Inverter (7)
13	Alimentazione
	° 400V/3/50Hz with fuses
2	230V/3/50Hz with fuses (8)
4	230V/3/50Hz with circuit breakers (8)
5	500V/3/50Hz with fuses (9)
8	400V/3/50Hz with circuit breakers
9	500V/3/50Hz with circuit breakers (9)
14-15	Hydronic kit
00	Without hydronic kit
PA	Hydronic pump (Pump A)
PB	Hydronic pump (A Pump and reserve pump)
PC	Hydronic pump (C Pump)
PD	Hydronic pump (C Pump and reserve pump)
PE	Hydronic pump (E Pump)
PF	Hydronic pump (E Pump and reserve pump)
PG	Hydronic pump (G Pump)
PH	Hydronic pump (G Pump and reserve pump)
PJ	Hydronic pump (J Pump)
PK	Hydronic pump (J Pump and reserve pump)
PN	Hydronic pump (N Pump) (10)
PO	Hydronic pump (N Pump and reserve pump) (10)
PP	Hydronic pump (P Pump) (10)
PQ	Hydronic pump (P Pump and reserve pump) (10)

(3) Options D are not compatible with option Y

(4) sizes 5002-5202-5402-5702 are available only with electronic expansion valve "X"

(5) The desuperheater **is not available**:

in the size 2002÷2802

in the size 1251-1401-1601-1801-1402-1602-1802, 3002÷4202, 6003÷6603 with built-in hydronic kit

(6) Not available with power supply (field, 2-4-5-9)

(7) Not available with power supply (field, 5-9)

(8) 230V/3/50Hz not available for size 1251÷2401/2352÷7203

(9) 500V/3/50Hz not available for size 1801÷2401/3402÷7203

(10) not available for size 1251÷1801/1402÷2002/3002÷4202/6003÷6603

Technical Data

Mod NS freecooling			1251	1401	1601	1801	2101	2401	1402	1602
Cooling capacity	FA	kW	272	304	338	408	465	518	285	324
	FE	kW	243	282	322	372	415	471	257	295
Total input power	FA	kW	91	104	115	144	157	177	103	119
	FE	kW	93	105	117	148	161	183	105	121
EER	FA	W/W	2,99	2,92	2,94	2,83	2,96	2,93	2,77	2,72
	FE	W/W	2,61	2,69	2,75	2,51	2,58	2,57	2,45	2,44
Water flow rate	FA	l/h	46780	52290	58140	70180	79980	89100	49020	55730
	FE	l/h	41800	48500	55380	63980	71380	81010	44200	50740
Total pressure drop	FA	kPa	57	54	46	74	78	97	43	56
	FE	kPa	46	47	42	62	62	80	35	46
Cooling capacity	FA	kW	280	291	301	403	486	503	285	297
	FE	kW	268	283	297	391	466	490	249	288
Total input power	FA/FE	kW	12	12	12	16	20	20	12	12
EER	FA	W/W	23,3	24,3	25,1	25,2	24,3	25,2	23,8	24,8
	FE	W/W	22,3	23,6	24,8	24,4	23,3	24,5	20,8	24,0
Water flow rate	FA	l/h	160	180	196	238	267	299	179	205
	FE	l/h	164	182	199	245	274	309	182	208
Total pressure drop	FA	kPa	78	82	85	136	128	163	70	91
	FE	kPa	62	71	77	113	102	135	57	75

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

GENERAL DATA			1251	1401	1601	1801	2101	2401	1402	1602	
Electrical data											
Total input current (Chiller)	(1)	FA	A	160	180	196	238	267	299	179	205
	(1)	FE	A	164	182	199	245	274	309	182	208
Total input current (Freecooling)	(1)	FA/FE	A	24	24	24	32	40	40	24	24
Maximum current (FLA)		FA/FE	A	242	242	102	346	365	405	275	315
Starting current (LRA)		FA/FE	A	387	431	431	501	631	695	251	289
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	1	1	1	1	1	1	2	2
Circuits			n°	1	1	1	1	1	1	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	6	6	6	8	10	10	6	6
Air flow rate (Chiller)		FA	m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
		FE	m ³ /h	70000	78000	87000	100000	112000	127000	74000	80000
Air flow rate (Freecooling)			m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		FA	dB(A)	62	63	65	65	66	66	64	65
		FE	dB(A)	54	55	57	57	57	58	56	57
Sound pressure (Freecooling)			dB(A)	62	63	65	65	66	66	64	65
Sound power (Chiller)		FA	dB(A)	94	95	97	97	98	98	96	97
		FE	dB(A)	86	87	89	89	90	90	88	89
Sound power (Freecooling)			dB(A)	94	95	97	97	98	98	96	97
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling			1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	FA	kW	377	429	480	501	522	553	584	642
	FE	kW	340	389	439	457	475	514	554	604
Total input power	FA	kW	133	153	168	177	186	200	215	219
	FE	kW	136	156	167	179	191	203	214	222
EER	FA	W/W	2,83	2,80	2,86	2,83	2,81	2,77	2,72	2,93
	FE	W/W	2,50	2,49	2,63	2,55	2,49	2,53	2,59	2,72
Water flow rate	FA	l/h	64840	73790	82560	86170	89780	95120	100450	110430
	FE	l/h	58480	66910	75510	78600	81700	88410	95290	103890
Total pressure drop	FA	kPa	60	77	81	89	97	107	123	50
	FE	kPa	49	62	68	94	80	93	110	44
Cooling capacity	FA	kW	393	452	491	498	505	514	522	592
	FE	kW	379	420	476	483	489	502	514	580
Total input power	FA/FE	kW	16	20	20	20	20	20	20	24
EER	FA	W/W	24,6	22,6	24,6	24,9	25,3	25,7	26,1	24,7
	FE	W/W	23,7	21,0	23,8	24,2	24,5	25,1	25,7	24,2
Water flow rate	FA	l/h	60954	69360	77600	81000	84400	89400	94420	103800
	FE	l/h	54970	62890	70978	73888	76798	83104	89571	97655
Total pressure drop	FA	kPa	115	120	139	153	167	189	216	83
	FE	kPa	93	62	116	127	138	163	195	74

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

GENERAL DATA			1802	2002	2202	2352	2502	2652	2802	3002	
Electrical data											
Total input current (Chiller)	(1)	FA	A	225	261	288	305	322	344	366	376
	(1)	FE	A	230	266	286	308	331	349	364	381
Total input current (Freecooling)	(1)	FA/FE	A	32	40	40	40	40	40	40	48
Maximum current (FLA)		FA/FE	A	360	389	409	442	475	475	475	484
Starting current (LRA)		FA/FE	A	340	420	437	497	524	568	570	579
Compressors											
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger		type	Shell and tube								
		n°	1	1	1	1	1	1	1	1	
hydraulic connections (in/out)		Ø	refer to the technical manual								
Fans standard											
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial
		n°	8								
Air flow rate (Chiller)	FA	m³/h	136000	170000	170000	170000	170000	170000	170000	170000	204000
	FE	m³/h	96000	124500	120000	123000	130000	130000	140000	165000	
Air flow rate (Freecooling)		m³/h	136000	170000	170000	170000	170000	170000	170000	170000	204000
Hydronic kit system side											
Useful static pressure		kPa	refer to the technical manual								
Sound data											
Sound pressure (Chiller)	FA	dB(A)	65	66	66	66	66	67	67	66	
	FE	dB(A)	57	57	58	58	58	59	59	58	
Sound pressure (Freecooling)		dB(A)	65	66	66	66	66	67	67	66	
Sound power (Chiller)	FA	dB(A)	97	98	98	98	98	99	99	99	
	FE	dB(A)	89	90	90	90	90	91	91	91	
Sound power (Freecooling)		dB(A)	97	98	98	98	98	99	99	99	
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling			3202	3402	3602	3902	4202	4502	4802	5002
Cooling capacity	FA	kW	675	746	817	873	926	983	1036	1084
	FE	kW	645	694	744	787	843	887	943	1017
Total input power	FA	kW	230	259	288	300	321	334	354	374
	FE	kW	233	265	298	311	333	346	369	381
EER	FA	W/W	2,93	2,88	2,84	2,91	2,88	2,94	2,93	2,90
	FE	W/W	2,77	2,62	2,50	2,53	2,53	2,56	2,56	2,67
Water flow rate	FA	l/h	116100	128310	140530	150160	159270	169080	178190	186450
	FE	l/h	110940	119370	127970	135370	145000	152570	162200	174930
Total pressure drop	FA	kPa	46	59	74	76	86	87	97	100
	FE	kPa	42	51	62	62	71	71	80	88
Cooling capacity	FA	kW	602	705	807	889	907	989	1007	993
	FE	kW	594	688	782	585	881	956	979	976
Total input power	FA/FE	kW	24	28	32	36	36	40	40	40
EER	FA	W/W	25,1	25,2	25,2	24,7	25,2	24,7	25,2	24,8
	FE	W/W	24,8	24,6	24,4	16,3	24,5	23,9	24,5	24,4
Water flow rate	FA	l/h	109134	120613	132100	141147	149716	158931	167500	175261
	FE	l/h	104284	112200	120290	127242	136300	143410	152464	164430
Total pressure drop	FA	kPa	85	108	136	132	150	145	163	157
	FE	kPa	77	93	113	107	125	118	135	138

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

GENERAL DATA			3202	3402	3602	3902	4202	4502	4802	5002	
Electrical data											
Total input current (Chiller)	(1)	FA	A	391	434	476	505	537	566	598	629
	(1)	FE	A	396	444	493	524	557	586	623	641
Total input current (Freecooling)	(1)	FA/FE	A	48	56	64	72	72	80	80	80
Maximum current (FLA)		FA/FE	A	484	588	692	711	751	770	810	900
Starting current (LRA)		FA/FE	A	579	649	677	810	857	934	934	1085
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	2	2	2	2	2	2	2	
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	12	14	16	18	18	20	20	20
Air flow rate (Chiller)		FA	m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
		FE	m ³ /h	174000	187000	200000	212000	227000	239000	254000	254000
Air flow rate (Freecooling)			m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		FA	dB(A)	67	67	67	68	68	68	68	69
		FE	dB(A)	59	59	59	60	60	60	60	61
Sound pressure (Freecooling)			dB(A)	67	67	67	68	68	68	68	69
Sound power (Chiller)		FA	dB(A)	100	100	100	101	101	101	101	102
		FE	dB(A)	92	92	92	93	93	93	93	94
Sound power (Freecooling)			dB(A)	100	100	100	101	101	101	101	102
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling			5202	5402	5702	600	6303	6603	6903	7203
Cooling capacity	FA	kW	1154	1225	1282	1335	1391	1444	1501	1554
	FE	kW	1066	1116	1159	1216	1259	1315	1358	1414
Total input power	FA	kW	403	432	444	465	478	498	511	532
	FE	kW	413	445	457	479	492	514	527	549
EER	FA	W/W	2,86	2,84	2,89	2,87	2,91	2,90	2,94	2,92
	FE	W/W	2,58	2,51	2,54	2,54	2,56	2,56	2,58	2,58
Water flow rate	FA	l/h	198490	210700	220510	229620	239250	248370	258170	267290
	FE	l/h	183350	191950	199350	209150	216550	226180	233580	243210
Total pressure drop	FA	kPa	103	111	119	82	83	90	97	101
	FE	kPa	88	92	97	68	68	75	79	84
Cooling capacity	FA	kW	1009	1025	1035	1310	1393	1410	1493	1510
	FE	kW	988	1001	1010	1272	1347	1371	1446	1469
Total input power	FA/FE	kW	40	40	40	52	56	56	60	60
EER	FA	W/W	25,2	25,6	25,9	25,2	24,9	25,2	24,9	25,2
	FE	W/W	24,7	25,0	25,3	24,5	24,1	24,5	24,1	24,5
Water flow rate	FA	l/h	486579	198060	207280	215843	224900	233466	242682	251251
	FE	l/h	172351	180435	187390	196600	203550	212600	219560	228616
Total pressure drop	FA	kPa	152	161	171	146	142	151	163	160
	FE	kPa	130	134	140	121	117	125	134	133

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

GENERAL DATA			5202	5402	5702	6003	6303	6603	6903	7203
Electrical data										
Total input current (Chiller)	(1)	FA	A	672	714	743	775	804	836	897
	(1)	FE	A	689	735	765	798	492	863	926
Total input current (Freecooling)	(1)	FA/FE	A	80	80	80	104	112	112	120
Maximum current (FLA)		FA/FE	A	958	995	1032	1097	1116	1156	1215
Starting current (LRA)		FA/FE	A	1143	1255	1247	1060	1121	1113	1173
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	3	3	3	3	3
Circuits		n°	2	2	2	3	3	3	3	3
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	2	2	2	3	3	3	3	3
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	20	20	20	26	28	28	30	30
Air flow rate (Chiller)	FA	m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
	FE	m ³ /h	254000	254000	254000	327000	339000	354000	366000	381000
Air flow rate (Freecooling)		m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
Sound data										
Sound pressure (Chiller)	FA	dB(A)	69	69	69	69	69	70	69	69
	FE	dB(A)	63	63	63	62	62	63	63	63
Sound pressure (Freecooling)		dB(A)	69	69	69	69	69	70	69	69
Sound power (Chiller)	FA	dB(A)	102	102	102	102	102	103	103	103
	FE	dB(A)	94	94	94	94	94	95	95	95
Sound power (Freecooling)		dB(A)	102	102	102	102	102	103	103	103
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

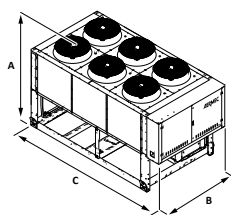
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

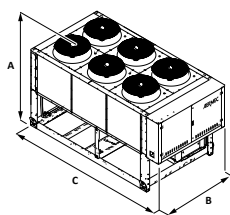
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

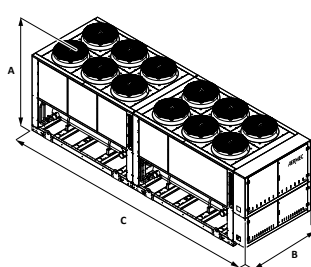
NS1251÷2401
(single module 1 circuits)



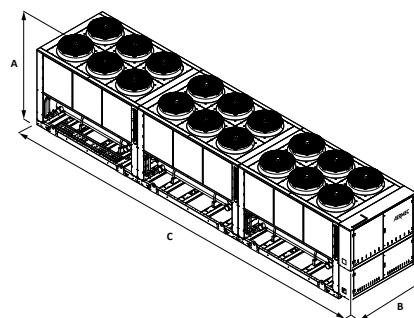
NS1402÷2802
(single module 2 circuits)



NS3002÷5702
(double module 2 circuits)



NS6003÷7203
(three module 3 circuits)



Mod. NS		Vers	1251	1401	1601	1801	2101	2401	1402	1602
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	3780	3780	3780	4770	5750	3780	3780
Weight when empty	(kg)	Alls		3760	3770	3840	5000	5950	4010	4030
Mod. NS		Vers	1802	2002	2202	2352	2502	2652	2802	3002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	4770	5750	5750	5750	5750	5750	7160
Weight when empty	(kg)	Alls		4730	5470	5790	6340	6330	6350	7210
Mod. NS		Vers	3202	3402	3602	3902	4202	4502	4802	5002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	7160	8150	9140	10120	10120	11100	11100
Weight when empty	(kg)	Alls		7310	8410	9180	10580	11580	11104	11320
Mod. NS		Vers	5202	5402	5702	6003	6303	6603	6903	7203
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	11100	11100	11100	14490	15470	15470	16450
Weight when empty	(kg)	Alls		12600	12700	12800	15160	16560	16840	17300

For transport reasons Versions FA and FE, 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.

NS

1251/7203
free-cooling
HWT

R134a

Chillers with freecooling HWT
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 251÷1542kW



Designed for
**DATA CENTERS &
PROCESS COOLING**
Applications

- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPERATES TO 46 °C AMBIENT**
- **WATER PRODUCTION UP TO 30 °C**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers with freecooling
- Version**
- NS_WFA** High efficiency version
- NS_WFE** High efficiency low noise version
- **Operational limits (1)**
- max. external air temperature 46°C
- 1/3 circuiti frigoriferi
- 1/3 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- Shell and tube evaporator optimised for refrigerant R134a
- Pressure switch as standard supply
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-cooling coil
- Partial heat recovery (option) desuperheater
- Option integrated hydronic module, it consist of 1 or 2 pumps and 2 expansion tanks (25l.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint
- Fan speed control standard (DCPX)
- The low noise version "E" is equipped:
 - Compressor acoustical enclosure
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.
- Accessories factory fitted only**
- **KRSDS:** Evaporator and heat recovery exchangers trace heating.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **AK: ACUSTIC KIT (only for Versions E)**
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	Alls	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS_DES	(1) Alls	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
RIFNS	Alls	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002F
GP300M	Alls	•	•	•													
GP400M	Alls				•												
GP500M	Alls					•	•										
GP300B	Alls							•	•								
GP400B	Alls									•							
GP500B	Alls										•	•	•	•	•	•	
GP300M+300M	Alls																•
AK	(2) FE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	Alls	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	Alls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS_DES	(1) Alls	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
RIFNS	Alls	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	Alls	•															
GP300M+400M	Alls		•														
GP400M+400M	Alls			•													
GP400M+500M	Alls				•	•											
GP500M+500M	Alls						•	•	•	•	•	•					
GP400M+400M+500M	Alls												•				
GP400M+500M+500M	Alls													•	•		
GP500M+500M+400M	Alls															•	•
AK	(2) FE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
spring antivibration		1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) The accessory comes standard with the electrical heater

(2) The accessory is only available for the low noise version "FE"

(3) Development order

(x2) the number in brackets indicates the quantity to order

Unit Configurator

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

Field	Code
1,2	NS
3,4,5,6	Size
	1251-1401-1601-1801-2101-2401 (single module 1 circuits)
	1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits)
	3002-3202-3402-3602-3902-4202-4502-4802-5002-5202-5402-5702 (double module 2 circuits)
	6003-6303-6603-6903-7203 (three module 3 circuits)
7	Expansion valve:
W	Electronic expansion valve, leaving water temperature from +5°C up to +30°C
8	Model
F	Freecooling
9	Heat recovery
	° Without recovery
10	Version
A	High efficiency
E	High efficiency in low noise operation
11	Coil
	° In aluminium
R	In copper
S	In tinned copper
V	In painted aluminium-copper (epoxy paint)
12	Fans
	° Standard
M	High static pressure
J	Inverter
13	Power supply
	° 400V/3/50Hz with fuses
8	400V/3/50Hz with circuit breakers
14-15	Hydronic kit
00	Without hydronic kit
PA	Hydronic pump (Pump A)
PB	Hydronic pump (A Pump and reserve pump)
PC	Hydronic pump (C Pump)
PD	Hydronic pump (C Pump and reserve pump)
PE	Hydronic pump (E Pump)
PF	Hydronic pump (E Pump and reserve pump)
PG	Hydronic pump (G Pump)
PH	Hydronic pump (G Pump and reserve pump)
PJ	Hydronic pump (J Pump)
PK	Hydronic pump (J Pump and reserve pump)
PN	Hydronic pump (N Pump) (3)
PO	Hydronic pump (N Pump and reserve pump) (3)
PP	Hydronic pump (P Pump) (3)
PQ	Hydronic pump (P Pump and reserve pump) (3)

(3) not available for size 1251÷1801/1402÷2002/3002÷4202/6003÷6603

Technical Data

Mod NS freecooling HWT			1251	1401	1601	1801	2101	2401	1402	1602
Cooling capacity	FA	kW	265	306	331	398	459	514	304	340
	FE	kW	251	286	307	367	424	472	285	314
Total input power	FA	kW	71	83	88	101	113	129	80	98
	FE	kW	73	86	94	106	117	135	85	103
EER	FA	W/W	3,73	3,69	3,76	3,94	4,06	3,98	3,80	3,47
	FE	W/W	3,44	3,33	3,27	3,46	3,62	3,50	3,35	3,05
Cooling capacity	FA	kW	265	306	331	398	459	514	304	340
	FE	kW	251	286	307	367	424	472	285	314
Total input power	FA/FE	kW	12	12	12	16	20	20	12	12
EER	FA	W/W	22,1	25,5	27,6	24,9	23,0	25,7	25,3	28,3
	FE	W/W	20,9	23,8	25,6	22,9	21,2	23,6	23,8	26,2
External air temperature total freecooling	BA	°C	12,7	11,3	10,7	12,2	12,7	11,7	11,1	10,1
	BE	°C	12,8	11,9	11,6	12,8	13,2	12,5	10,2	10,9
Water flow rate	FA	l/h	45580	52632	56932	68456	78948	88408	52288	58480
	FE	l/h	43172	49192	52804	63124	72928	81184	49020	54008
Total pressure drop (Chiller)	FA	kPa	55	56	45	71	76	96	50	62
	FE	kPa	49	49	39	61	65	81	44	53
Total pressure drop (Freecooling)	FA	kPa	84	95	92	147	142	183	91	114
	FE	kPa	75	83	80	125	121	154	80	97

Cooling

Evaporator water temperature (in/out) 25°C/20°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 25°C

GENERAL DATA			1251	1401	1601	1801	2101	2401	1402	1602	
Electrical data											
Total input current (Chiller)	(1)	FA	A	123	142	157	179	196	234	148	174
	(1)	FE	A	125	147	163	185	201	241	152	181
Total input current (Freecooling)	(1)	FA/FE	A	24	24	24	32	40	40	24	24
Maximum current (FLA)		FA/FE	A	159	182	197	228	259	292	188	210
Starting current (LRA)		FA/FE	A	281	322	376	438	446	492	288	304
Compressors											
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	1	1	1	1	1	1	2	2	
Circuits		n°	1	1	1	1	1	1	2	2	
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100	
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	
System side exchanger											
Exchanger		type	Shell and tube								
		n°	1	1	1	1	1	1	1	1	
hydraulic connections (in/out)		Ø	refer to the technical manual								
Fans standard											
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	
		n°	6	6	6	8	10	10	6	6	
Air flow rate (Chiller)	FA	m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000	
	FE	m ³ /h	70000	78000	87000	100000	112000	127000	74000	80000	
Air flow rate (Freecooling)		m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000	
Hydronic kit system side											
Useful static pressure		kPa	refer to the technical manual								
Sound data											
Sound pressure (Chiller)	FA	dB(A)	62	63	65	65	66	66	64	65	
	FE	dB(A)	54	55	57	57	57	58	56	57	
Sound pressure (Freecooling)		dB(A)	62	63	65	65	66	66	64	65	
Sound power (Chiller)	FA	dB(A)	94	95	97	97	98	98	96	97	
	FE	dB(A)	86	87	89	89	90	90	88	89	
Sound power (Freecooling)		dB(A)	94	95	97	97	98	98	96	97	
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling HWT			1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	FA	kW	411	445	472	493	520	550	574	637
	FE	kW	382	419	436	461	483	509	543	593
Total input power	FA	kW	110	118	122	133	143	155	167	171
	FE	kW	114	122	126	139	150	164	177	180
EER	FA	W/W	3,74	3,77	3,87	3,71	3,64	3,55	3,44	3,73
	FE	W/W	3,35	3,43	3,46	3,32	3,22	3,10	3,07	3,29
Cooling capacity	FA	kW	411	445	472	493	520	550	574	637
	FE	kW	382	419	436	461	483	509	543	593
Total input power	FA/FE	kW	16	20	20	20	20	20	20	24
EER	FA	W/W	25,7	22,3	23,6	24,7	26,0	27,5	28,7	26,5
	FE	W/W	23,9	21,0	21,8	23,1	24,2	25,5	27,2	24,7
External air temperature total freecooling	BA	°C	11,4	12,2	12,5	12,2	11,6	11,1	10,7	11,0
	BE	°C	11,9	12,0	13,1	12,6	12,2	11,8	11,3	11,7
Water flow rate	FA	l/h	70692	76540	81184	84796	89440	94600	98728	109564
	FE	l/h	65704	72068	74992	79292	83076	87548	93396	101996
Total pressure drop (chiller)	FA	kPa	72	82	79	87	97	107	119	50
	FE	kPa	62	73	68	76	84	92	107	43
Total pressure drop (Freecooling)	FA	kPa	155	147	153	168	188	212	237	94
	FE	kPa	134	131	130	147	162	182	212	81

Cooling

Evaporator water temperature (in/out) 25°C/20°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 25°C

GENERAL DATA			1802	2002	2202	2352	2502	2652	2802	3002	
Electrical data											
Total input current (Chiller)	(1)	FA	A	196	208	212	229	245	265	284	299
	(1)	FE	A	201	212	217	236	254	277	298	310
Total input current (Freecooling)	(1)	FA/FE	A	32	40	40	40	40	40	40	48
Maximum current (FLA)		FA/FE	A	244	264	276	293	310	333	356	379
Starting current (LRA)		FA/FE	A	332	377	389	415	432	473	496	558
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	8							
Air flow rate (Chiller)	FA	m ³ /h	136000	170000	170000	170000	170000	170000	170000	170000	204000
	FE	m ³ /h	96000	124500	120000	123000	130000	130000	140000	165000	
Air flow rate (Freecooling)		m ³ /h	136000	170000	170000	170000	170000	170000	170000	170000	204000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
				refer to the technical manual							
Sound data											
Sound pressure (Chiller)	FA	dB(A)	65	66	66	66	66	67	67	67	66
	FE	dB(A)	57	57	58	58	58	59	59	59	58
Sound pressure (Freecooling)		dB(A)	65	66	66	66	66	67	67	67	66
Sound power (Chiller)	FA	dB(A)	97	98	98	98	98	99	99	99	99
	FE	dB(A)	89	90	90	90	90	91	91	91	91
Sound power (Freecooling)		dB(A)	97	98	98	98	98	99	99	99	99
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling HWT			3202	3402	3602	3902	4202	4502	4802	5002
Cooling capacity	FA	kW	662	729	796	857	912	973	1028	1087
	FE	kW	614	674	734	791	839	896	944	1003
Total input power	FA	kW	176	189	202	214	230	242	258	281
	FE	kW	188	200	212	223	241	252	270	296
EER	FA	W/W	3,76	3,86	3,94	4,00	3,97	4,02	3,98	3,87
	FE	W/W	3,27	3,37	3,46	3,55	3,48	3,56	3,50	3,39
Cooling capacity	FA	kW	662	729	796	857	912	973	1028	1087
	FE	kW	614	674	734	791	839	896	944	1003
Total input power	FA/FE	kW	24	28	32	36	36	40	40	40
EER	FA	W/W	27,6	26,0	24,9	23,8	25,3	24,3	25,7	27,2
	FE	W/W	25,6	24,1	22,9	22,0	23,3	22,4	23,6	25,1
External air temperature total freecooling	BA	°C	10,7	11,5	12,2	12,5	12,0	12,2	11,7	10,8
	BE	°C	11,6	12,2	12,8	13,0	12,6	12,8	12,5	11,7
Water flow rate	FA	l/h	113864	125388	136912	147404	156864	167356	176816	186964
	FE	l/h	105608	115928	126248	136052	144308	154112	162368	172516
Total pressure drop (chiller)	FA	kPa	45	57	71	74	84	86	96	102
	FE	kPa	39	49	60	63	71	73	81	87
Total pressure drop (Freecooling)	FA	kPa	93	117	147	144	166	162	183	179
	FE	kPa	80	100	125	123	140	137	154	153

Cooling

Evaporator water temperature (in/out) 25°C/20°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 25°C

GENERAL DATA			3202	3402	3602	3902	4202	4502	4802	5002	
Electrical data											
Total input current (Chiller)	(1)	FA	A	314	336	358	375	413	430	468	496
	(1)	FE	A	326	348	370	386	426	442	482	514
Total input current (Freecooling)	(1)	FA/FE	A	48	56	64	72	72	80	80	80
Maximum current (FLA)		FA/FE	A	394	425	456	487	520	551	584	601
Starting current (LRA)		FA/FE	A	573	635	666	674	720	751	784	920
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	2	2	2	2	2	2	2	2
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	12	14	16	18	18	20	20	20
Air flow rate (Chiller)		FA	m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
		FE	m ³ /h	174000	187000	200000	212000	227000	239000	254000	254000
Air flow rate (Freecooling)			m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		FA	dB(A)	67	67	67	68	68	68	68	69
		FE	dB(A)	59	59	59	60	60	60	60	61
Sound pressure (Freecooling)			dB(A)	67	67	67	68	68	68	68	69
Sound power (Chiller)		FA	dB(A)	100	100	100	101	101	101	101	102
		FE	dB(A)	92	92	92	93	93	93	93	94
Sound power (Freecooling)			dB(A)	100	100	100	101	101	101	101	102
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling			5202	5402	5702	600	6303	6603	6903	7203
Cooling capacity	FA	kW	1146	1205	1264	1310	1371	1426	1487	1542
	FE	kW	1062	1113	1164	1206	1263	1311	1368	1416
Total input power	FA	kW	304	332	360	331	343	359	371	387
	FE	kW	322	354	386	347	358	376	387	405
EER	FA	W/W	3,77	3,63	3,51	3,96	4,00	3,97	4,01	3,98
	FE	W/W	3,30	3,14	3,02	3,48	3,53	3,49	3,53	3,50
Cooling capacity	FA	kW	1146	1205	1264	1310	1371	1426	1487	1542
	FE	kW	1062	1113	1164	1206	1263	1311	1368	1416
Total input power	FA/FE	kW	40	40	40	52	56	56	60	60
EER	FA	W/W	28,7	30,1	31,6	25,2	24,5	25,5	24,8	25,7
	FE	W/W	26,6	27,8	29,1	23,2	22,6	23,4	22,8	23,6
External air temperature total freecooling	BA	°C	10,2	9,7	9,1	12,0	12,2	11,9	12,0	11,7
	BE	°C	11,0	10,5	10,0	12,7	12,8	12,6	12,7	12,5
Water flow rate	FA	l/h	197112	207260	217408	225320	235812	245272	255764	265224
	FE	l/h	182664	191436	200208	207432	217236	225492	235296	243552
Total pressure drop (chiller)	FA	kPa	103	108	116	79	81	89	96	100
	FE	kPa	88	92	99	67	69	75	81	85
Total pressure drop (Freecooling)	FA	kPa	170	177	189	159	157	168	182	179
	FE	kPa	146	151	160	135	134	142	154	151

Cooling

Evaporator water temperature (in/out) 12°C/7°C; external air temperature 35°C

Freecooling (100%)

Evaporator water temperature (in) 15 °C; external air temperature 2°C

GENERAL DATA			5202	5402	5702	6003	6303	6603	6903	7203
Electrical data										
Total input current (Chiller)	(1)	FA	A	524	568	612	592	609	647	702
	(1)	FE	A	546	596	646	611	627	667	723
Total input current (Freecooling)	(1)	FA/FE	A	80	80	80	104	112	112	120
Maximum current (FLA)		FA/FE	A	618	657	696	748	779	812	876
Starting current (LRA)		FA/FE	A	937	1001	1040	948	979	1012	1076
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	3	3	3	3	3
Circuits		n°	2	2	2	3	3	3	3	3
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	2	2	2	3	3	3	3	3
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	20	20	20	26	28	28	30	30
Air flow rate (Chiller)	FA	m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
	FE	m ³ /h	254000	254000	254000	327000	339000	354000	366000	381000
Air flow rate (Freecooling)		m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
Sound data										
Sound pressure (Chiller)	FA	dB(A)	69	69	69	69	69	70	69	69
	FE	dB(A)	63	63	63	62	62	63	63	63
Sound pressure (Freecooling)		dB(A)	69	69	69	69	69	70	69	69
Sound power (Chiller)	FA	dB(A)	102	102	102	102	102	103	103	103
	FE	dB(A)	94	94	94	94	94	95	95	95
Sound power (Freecooling)		dB(A)	102	102	102	102	102	103	103	103
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

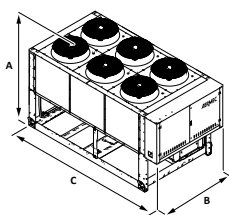
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

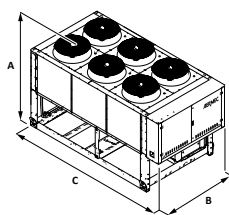
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

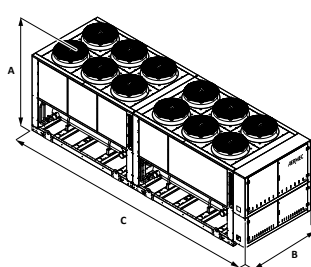
NS1251÷2401
(single module 1 circuits)



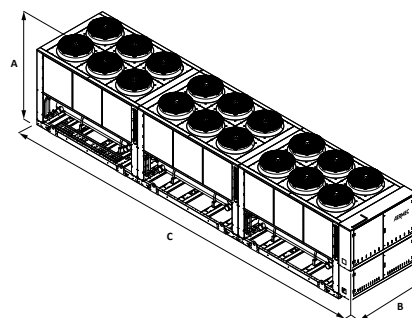
NS1402÷2802
(single module 2 circuits)



NS3002÷5702
(double module 2 circuits)



NS6003÷7203
(three module 3 circuits)



Mod. NS		Vers	1251	1401	1601	1801	2101	2401	1402	1602
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	3780	3780	3780	4770	5750	3780	3780
Weight when empty	(kg)	Alls		3468	3482	3840	4622	5509	3668	4030
Mod. NS		Vers	1802	2002	2202	2352	2502	2652	2802	3002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	4770	5750	5750	5750	5750	5750	7160
Weight when empty	(kg)	Alls		4730	5182	5232	5769	5745	5774	6913
Mod. NS		Vers	3202	3402	3602	3902	4202	4502	4802	5002
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	7160	8150	9140	10120	10120	11100	11100
Weight when empty	(kg)	Alls		7310	8023	8424	9761	10032	10213	11706
Mod. NS		Vers	5202	5402	5702	6003	6303	6603	6903	7203
Height	(mm)	A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	Alls	11100	11100	11100	14490	15470	15470	16450
Weight when empty	(kg)	Alls		12312	12385	12458	13954	15291	15562	15950

For transport reasons Versions FA and FE, 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.

NS

1251/7203
glycolfree

R134a

Chillers with freecooling glycolfree
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 243÷1554kW



- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/3 REFRIGERANT CIRCUITS**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers with freecooling glycolfree
- Version**
- NS_BA** High efficiency version
- NS_BE** High efficiency low noise version
- **Operational limits (1)**
- max. external air temperature 46°C
- 1/3 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- Shell and tube evaporator optimised for refrigerant R134a
- Electronic expansion valve standard in size 5002 to 5702
- Pressure switch as standard supply
- 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
- Partial heat recovery (option) desuperheater
- Option integrated hydronic module, it consist of 1 or 2 pumps and 2 expansion tanks (251.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint
- DCPX as standard: fan speed control by means of phase-cut controller
- The low noise version "E" is equipped:
 - Compressor acoustical enclosure
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **remote control max. 18 units in RS485 network with integrated GPRS modem;**
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.
- Accessories factory fitted only**
 - **KRS: (compulsory accessory).** Evaporator trace heating.
 - **KRSDS: (compulsory accessory)** Evaporator and heat recovery exchangers trace heating.
- **KDI:** 20 mm **doubled thickness evaporator insulation. Provides stand-still protection down to -20°C.** Must be ordered in conjunction with options KRS and KRSDS heaters.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **AK: ACUSTIC KIT (only for Versions E)**
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	all	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only	all																
KRS	(1) all	KRS10	KRS10	KRS11	KRS10	KRS11	KRS11	KRS11	KRS11	KRS10	KRS10	KRS11	KRS11	KRS11	KRS11	KRS11	KRS13
KRS DES	(2) all	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
KDI	(3) all	01	01	02	03	04	04	06	06	06	06	08	08	08	08	08	01+02
RIFNS	all	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002F
GP300M	all	•	•	•													
GP400M	all				•												
GP500M	all					•	•										
GP300B	all							•	•								
GP400B	all									•							
GP500B	all										•	•	•	•	•	•	
GP300M+300M	all																•
AK	(4) BE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	all	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only	all																
KRS	(1) all	KRS14	KRS13	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRS DES	(2) all	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KDI	(3) all	02 (x2)	02+03	03 (x2)	03+04	03+04	04 (x2)	04 (x2)	04+05	05 (x2)	05 (x2)	05 (x2)	03 (x2)+04	03+04 (x2)	03+04 (x2)	04 (x3)	04 (x3)
RIFNS	all	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	all	•															
GP300M+400M	all		•														
GP400M+400M	all			•													
GP400M+500M	all				•	•											
GP500M+500M	all						•	•	•	•	•	•					
GP400M+400M+500M	all												•				
GP400M+500M+500M	all													•	•		
GP500M+500M+400M	all															•	•
AK	(4) BE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Spring anti-vibration mounts		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
		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		507	513	516	518	518	521	521	560	560	560	560	525	527	527	530	530

(1) Accessory (compulsory) comes standard with the electrical heater for evaporator

(2) Accessory (**compulsory**) with **desuperheater** comes standard with the electrical heater for evaporator and desuperheater

(3) Accessory **KDI must always be combined with the KRS and KRSDS heating elements**

(4) The accessory is only available for the low noise version "BE"

(x2) the number in brackets indicates the quantity to order

Unit Configurator

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

Field	Code
1,2	NS
3,4,5,6	Size
	1251-1401-1601-1801-2101-2401 (single module 1 circuits)
	1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits)
	3002-3202-3402-3602-3902-4202-4502-4802-5002-5202-5402-5702 (double module 2 circuits)
	6003-6303-6603-6903-7203 (three module 3 circuits)
7	Expansion valve:
	° Standard (leaving water temperature down to 4°C)
	Y Low temperature (Low leaving liquid from 0°C down to -6°C) (5)
	X Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures (6)
8	Model
	F Freecooling Glycolfree
9	Heat recovery
	° Without recovery
	D With Desuperheater(7)
10	Version
	A High efficiency
	E High efficiency in low noise operation
11	Coil
	° In aluminium
	R In copper
	S In tinned copper
	V In painted aluminium-copper (epoxy paint)
12	Fans
	° Standard
	M High static pressure (8)
	J Inverter (9)
13	Alimentazione
	° 400V/3/50Hz with fuses
	2 230V/3/50Hz with fuses (10)
	4 230V/3/50Hz with circuit breakers (10)
	5 500V/3/50Hz with fuses (11)
	8 400V/3/50Hz with circuit breakers
	9 500V/3/50Hz with circuit breakers (11)
14-15	Hydronic kit
	00 Without hydronic kit
	PA Hydronic pump (Pump A)
	PB Hydronic pump (A Pump and reserve pump) (12)
	PC Hydronic pump (C Pump)
	PD Hydronic pump (C Pump and reserve pump) (12)
	PE Hydronic pump (E Pump)
	PF Hydronic pump (E Pump and reserve pump) (12)
	PG Hydronic pump (G Pump)
	PH Hydronic pump (G Pump and reserve pump) (12)
	PJ Hydronic pump (J Pump)
	PK Hydronic pump (J Pump and reserve pump) (12)

(5)options D are not compatible with option Y

(6) sizes 5002-5202-5402-5702 are available only with electronic expansion valve "X"

(7) The desuperheater **is not available**:

in the size 1251÷1601, 1402, 1602, 2002÷3402

in the size 1801-1802, 6003÷6603 with built-in hydronic kit

(8) Not available with power supply (field, 2-4-5-9)

(9) Not available with power supply (field, 5-9)

(10) 230V/3/50Hz not available for size 1251÷2401/2352÷7203

(11) 500V/3/50Hz not available for size 1801÷2401/3402÷7203

(12) Not available for size 1251÷1601/3002÷3402

Technical Data

Mod NS freecooling Glycol free			1251	1401	1601	1801	2101	2401	1402	1602
Cooling capacity	BA	kW	272	304	338	408	465	518	285	324
	BE	kW	243	282	322	372	415	471	257	295
Total input power	BA	kW	91	104	115	144	157	177	103	119
	BE	kW	93	105	117	148	161	183	105	121
EER	BA	W/W	2,99	2,92	2,94	2,83	2,96	2,93	2,77	2,72
	BE	W/W	2,61	2,69	2,75	2,51	2,58	2,57	2,45	2,44
Cooling capacity	BA/BE	kW	213	222	229	307	370	383	217	226
Total input power	BA/BE	kW	14,0	14,0	14,0	19,8	25,3	25,5	14,0	14,0
EER	BA/BE	W/W	15,2	15,9	16,4	15,5	14,6	15,0	15,5	16,1
Water flow rate	BA	l/h	46780	52290	58140	70180	79980	89100	49020	55730
	BE	l/h	41800	48500	55380	63980	71380	81010	44200	50740
Total pressure drop	BA	kPa	82	79	71	94	90	104	67	79
	BE	kPa	65	68	64	78	72	86	54	65

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 15 °C; External air temperature 2°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			1251	1401	1601	1801	2101	2401	1402	1602
Electrical data										
Total input current (Chiller)	(1)	BA	A	160	180	196	238	267	299	205
	(1)	BE	A	164	182	199	245	274	309	208
Total input current (Glycolfree)	(1)	BA/BE	A	28	28	28	40	51	51	28
Maximum current (FLA)		BA/BE	A	242	242	242	346	365	405	315
Starting current (LRA)		BA/BE	A	387	431	431	501	631	695	289
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	1	1	1	1	1	1	2	2
Circuits		n°	1	1	1	1	1	1	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	6	6	6	8	10	10	6	6
Air flow rate (Chiller)	BA	m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
	BE	m ³ /h	70000	78000	87000	100000	112000	127000	74000	80000
Air flow rate (Glycolfree)		m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
Sound data										
Sound pressure (Chiller)	BA	dB(A)	62	63	65	65	66	66	64	65
	BE	dB(A)	54	55	57	57	57	58	56	57
Sound pressure (Glycolfree)		dB(A)	62	63	65	65	66	66	64	65
Sound power (Chiller)	BA	dB(A)	94	95	97	97	98	98	96	97
	BE	dB(A)	86	87	89	89	90	90	88	89
Sound power (Glycolfree)		dB(A)	94	95	97	97	98	98	96	97
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling Glycolfree			1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	BA	kW	377	429	480	501	522	553	584	642
	BE	kW	340	389	439	457	475	514	554	604
Total input power	BA	kW	133	153	168	177	186	200	215	219
	BE	kW	136	156	167	179	191	203	214	222
EER	BA	W/W	2,83	2,80	2,86	2,83	2,81	2,77	2,72	2,93
	BE	W/W	2,50	2,49	2,63	2,55	2,49	2,53	2,59	2,72
Cooling capacity	BA/BE	kW	299	344	374	379	385	391	397	451
Total input power	BA/BE	kW	19,8	25,3	25,3	25,4	25,5	27,1	27,2	28,0
EER	BA/BE	W/W	15,1	13,6	14,8	14,9	15,1	14,4	14,6	16,1
Water flow rate	BA	l/h	64840	73790	82560	86170	89780	95120	100450	110430
	BE	l/h	58480	66910	75510	78600	81700	88410	95290	103890
Total pressure drop	BA	kPa	81	86	92	97	103	110	121	74
	BE	kPa	66	71	77	81	86	95	109	66

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 15 °C; External air temperature 2°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			1802	2002	2202	2352	2502	2652	2802	3002	
Electrical data											
Total input current (Chiller)	(1)	BA	A	225	261	288	305	322	344	366	376
	(1)	BE	A	230	266	286	308	331	349	364	381
Total input current (Glycolfree)	(1)	BA/BE	A	40	51	51	51	51	54	54	56
Maximum current (FLA)		BA/BE	A	360	389	409	442	475	475	475	484
Starting current (LRA)		BA/BE	A	340	420	437	497	524	568	570	579
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	8							
Air flow rate (Chiller)		BA	m³/h	136000	170000	170000	170000	170000	170000	170000	204000
		BE	m³/h	96000	124500	120000	123000	130000	130000	140000	165000
Air flow rate (Glycolfree)			m³/h	136000	170000	170000	170000	170000	170000	170000	204000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
				refer to the technical manual							
Sound data											
Sound pressure (Chiller)		BA	dB(A)	65	66	66	66	66	67	67	66
		BE	dB(A)	57	57	58	58	58	59	59	58
Sound pressure (Glycolfree)			dB(A)	65	66	66	66	66	67	67	66
Sound power (Chiller)		BA	dB(A)	97	98	98	98	98	99	99	99
		BE	dB(A)	89	90	90	90	90	91	91	91
Sound power (Glycolfree)			dB(A)	97	98	98	98	98	99	99	99
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS Breecooling GlycolBree			3202	3402	3602	3902	4202	4502	4802	5002
Cooling capacity	BA	kW	675	746	817	873	926	983	1036	1084
	BE	kW	645	694	744	787	843	887	943	1017
Total input power	BA	kW	230	259	288	300	321	334	354	374
	BE	kW	233	265	298	311	333	346	369	381
EER	BA	W/W	2,93	2,88	2,84	2,91	2,88	2,94	2,93	2,90
	BE	W/W	2,77	2,62	2,50	2,53	2,53	2,56	2,56	2,67
Cooling capacity	BA/BE	kW	458	536	614	677	690	753	766	756
Total input power	BA/BE	kW	28,0	33,8	39,6	45,1	45,3	50,8	51,0	51,0
EER	BA/BE	W/W	16,4	15,9	15,5	15,0	15,2	14,8	15,0	14,8
Water Blow rate	BA	l/h	116100	128310	140530	150160	159270	169080	178190	186450
	BE	l/h	110940	119370	127970	135370	145000	152570	162200	174930
Total pressure drop	BA	kPa	71	82	94	92	99	97	104	99
	BE	kPa	65	71	78	75	82	79	86	87

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 15 °C; External air temperature 2°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			3202	3402	3602	3902	4202	4502	4802	5002	
Electrical data											
Total input current (Chiller)	(1)	BA	A	391	434	476	505	537	566	598	629
	(1)	BE	A	396	444	493	524	557	586	623	641
Total input current (Glycolfree)	(1)	BA/BE	A	56	68	79	90	91	102	102	102
Maximum current (FLA)		BA/BE	A	484	588	692	711	751	770	810	900
Starting current (LRA)		BA/BE	A	579	649	677	810	857	934	934	1085
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	2	2	2	2	2	2	2	
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	12	14	16	18	18	20	20	20
Air flow rate (Chiller)		BA	m³/h	204000	238000	272000	306000	306000	340000	340000	340000
		BE	m³/h	174000	187000	200000	212000	227000	239000	254000	254000
Air flow rate (Glycolfree)			m³/h	204000	238000	272000	306000	306000	340000	340000	340000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		BA	dB(A)	67	67	67	68	68	68	68	69
		BE	dB(A)	59	59	59	60	60	60	60	61
Sound pressure (Glycolfree)			dB(A)	67	67	67	68	68	68	68	69
Sound power (Chiller)		BA	dB(A)	100	100	100	101	101	101	101	102
		BE	dB(A)	92	92	92	93	93	93	93	94
Sound power (Glycolfree)			dB(A)	100	100	100	101	101	101	101	102
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling Glycolfree			5202	5402	5702	600	6303	6603	6903	7203
Cooling capacity	BA	kW	1154	1225	1282	1335	1391	1444	1501	1554
	BE	kW	1066	1116	1159	1216	1259	1315	1358	1414
Total input power	BA	kW	403	432	444	465	478	498	511	532
	BE	kW	413	445	457	479	492	514	527	549
EER	BA	W/W	2,86	2,84	2,89	2,87	2,91	2,90	2,94	2,92
	BE	W/W	2,58	2,51	2,54	2,54	2,56	2,56	2,58	2,58
Cooling capacity	BA/BE	kW	768	780	788	984	1060	1073	1136	1149
Total input power	BA/BE	kW	51,0	51,0	51,0	65,1	70,6	70,8	76,3	76,5
EER	BA/BE	W/W	15,1	15,3	15,5	15,1	15,0	15,2	14,9	15,0
Water flow rate	BA	l/h	198490	210700	220510	229620	239250	248370	258170	267290
	BE	l/h	183350	191950	199350	209150	216550	226180	233580	243210
Total pressure drop	BA	kPa	95	101	106	98	96	99	99	104
	BE	kPa	81	84	87	81	79	82	81	86

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 15 °C; External air temperature 2°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			5202	5402	5702	6003	6303	6603	6903	7203	
Electrical data											
Total input current (Chiller)	(1)	BA	A	672	714	743	775	804	836	865	897
	(1)	BE	A	689	735	765	798	492	863	892	926
Total input current (Glycolfree)	(1)	BA/BE	A	102	102	102	130	141	142	153	153
Maximum current (FLA)		BA/BE	A	958	995	1032	1097	1116	1156	1175	1215
Starting current (LRA)		BA/BE	A	1143	1255	1247	1060	1121	1113	1173	1173
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	3	3	3	3	3
Circuits			n°	2	2	2	3	3	3	3	3
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	2	2	2	3	3	3	3	3
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	20	20	20	26	28	28	30	30
Air flow rate (Chiller)		BA	m³/h	340000	340000	340000	442000	476000	476000	510000	510000
		BE	m³/h	254000	254000	254000	327000	339000	354000	366000	381000
Air flow rate (Glycolfree)			m³/h	340000	340000	340000	442000	476000	476000	510000	510000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		BA	dB(A)	69	69	69	69	69	70	69	69
		BE	dB(A)	63	63	63	62	62	63	63	63
Sound pressure (Glycolfree)			dB(A)	69	69	69	69	69	70	69	69
Sound power (Chiller)		BA	dB(A)	102	102	102	102	102	103	103	103
		BE	dB(A)	94	94	94	94	94	95	95	95
Sound power (Glycolfree)			dB(A)	102	102	102	102	102	103	103	103
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

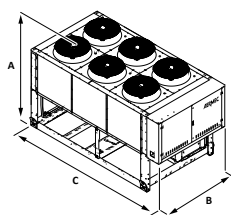
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

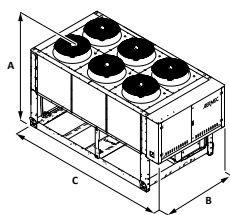
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

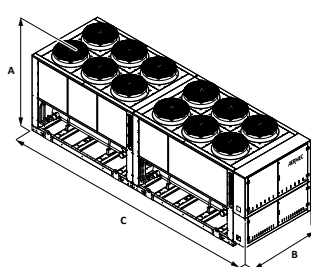
NS1251÷2401
(single module 1 circuits)



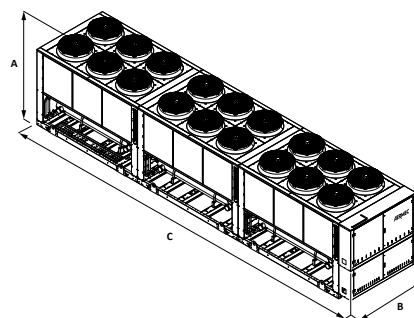
NS1402÷2802
(single module 2 circuits)



NS3002÷5702
(double module 2 circuits)



NS6003÷7203
(three module 3 circuits)



Mod. NS		Vers	1251	1401	1601	1801	2101	2401	1402	1602
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	3780	3780	3780	4770	5750	3780	3780
Weight when empty	(kg)	All		3760	3770	3840	5000	5950	4010	4030
Mod. NS		Vers	1802	2002	2202	2352	2502	2652	2802	3002
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	4770	5750	5750	5750	5750	5750	7160
Weight when empty	(kg)	All		4730	5470	5790	6340	6330	6350	7210
Mod. NS		Vers	3202	3402	3602	3902	4202	4502	4802	5002
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	7160	8150	9140	10120	10120	11100	11100
Weight when empty	(kg)	All		7310	8410	9180	10580	11580	11104	11320
Mod. NS		Vers	5202	5402	5702	6003	6303	6603	6903	7203
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	11100	11100	11100	14490	15470	15470	16450
Weight when empty	(kg)	All		12600	12700	12800	15160	16560	16840	17300

For transport reasons Versions BA and BE, 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.

NS

1251/7203
glycolfree
HWT

R134a

Chillers with freecooling glycolfree HWT
Air/Water outdoor installation
Axial fans and twin-rotor screw compressor
Cooling capacity 243÷1554kW



Designed for
**DATA CENTERS &
PROCESS COOLING**
Applications

- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPERATES TO 46 °C AMBIENT**
- **WATER PRODUCTION UP TO 30 °C**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

- Chillers with freecooling glycolfree
Version
NS_BA High efficiency version
NS_BE High efficiency low noise version
- **Operational limits (1)**
 - max. external air temperature 46°C
- 1/3 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100%. **(25 to 100% with electronic expansion valve option)**
- Shell and tube evaporator optimised for refrigerant R134a
- Pressure switch as standard supply
- 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
- Partial heat recovery (option) desuperheater
- Option integrated hydronic module, it consists of 1 or 2 pumps and 2 expansion tanks (25L.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint
- DCPX as standard: fan speed control by means of phase-cut controller
- The low noise version "E" is equipped:
 - Compressor acoustical enclosure
 - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **remote control max. 18 units in RS485 network with integrated GPRS modem;**
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.
- **KRS: (compulsory accessory).** Evaporator trace heating.
- **KRSDS: (compulsory accessory)** Evaporator and heat recovery exchangers trace heating.
- **KDI:** 20 mm **doubled thickness evaporator insulation. Provides stand-still protection down to -20°C.** Must be ordered in conjunction with options KRS and KRSDS heaters.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **AK: ACUSTIC KIT (only for Versions E)**
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AER485P1	all	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only	all																
KRS	(1) all	KRS10	KRS10	KRS11	KRS10	KRS11	KRS11	KRS11	KRS11	KRS10	KRS10	KRS11	KRS11	KRS11	KRS11	KRS11	KRS13
KRS_DES	(2) all	KRS10DES	KRS10DES	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS18DES	KRS18DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS13DES
KDI	(3) all	01	01	02	03	04	04	06	06	06	06	08	08	08	08	08	01+02
RIFNS	all	1251F	1401F	1601F	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002F
GP300M	all	•	•	•													
GP400M	all				•												
GP500M	all					•	•										
GP300B	all							•	•								
GP400B	all									•							
GP500B	all										•	•	•	•	•	•	
GP300M+300M	all																•
AK	(4) BE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
AER485P1	all	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	all	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only	all																
KRS	(1) all	KRS14	KRS13	KRS12	KRS13	KRS13	KRS14	KRS14	KRS14	KRS14	KRS14	KRS14	KRS15	KRS16	KRS16	KRS17	KRS17
KRS_DES	(2) all	KRS14DES	KRS13DES	KRS12DES	KRS13DES	KRS13DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES	KRS15DES	KRS16DES	KRS16DES	KRS17DES	KRS17DES
KDI	(3) all	02 (x2)	02+03	03 (x2)	03+04	03+04	04 (x2)	04 (x2)	04+05	05 (x2)	05 (x2)	05 (x2)	03 (x2)+04	03+04 (x2)	03+04 (x2)	04 (x3)	04 (x3)
RIFNS	all	3202F	3402F	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
GP300M+300M	all	•															
GP300M+400M	all		•														
GP400M+400M	all			•													
GP400M+500M	all				•	•											
GP500M+500M	all						•	•	•	•	•	•					
GP400M+400M+500M	all												•				
GP400M+500M+500M	all													•	•		
GP500M+500M+400M	all															•	•
AK	(4) BE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Spring anti-vibration mounts		1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
AVX		3202	3402	3602	3902	4202	4502	4802	5002	5202	5402	5702	6003	6303	6603	6903	7203
		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

- (1) Accessory (compulsory) comes standard with the electrical heater for evaporator
(2) Accessory (compulsory) comes standard with the electrical heater for evaporator and desuperheater
(3) Accessory KDI must always be combined with the KRS and KRSEDES heating elements
(4) The accessory is only available for the low noise version "BE"
(x2) the number in brackets indicates the quantity to order

Unit Configurator

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

Field	Code
1,2	NS
3,4,5,6	Size 1251-1401-1601-1801-2101-2401 (single module 1 circuits) 1402-1602-1802-2002-2202-2352-2502-2652-2802 (single module 2 circuits) 3002-3202-3402-3602-3902-4202-4502-4802-5002-5202-5402-5702 (double module 2 circuits) 6003-6303-6603-6903-7203 (three module 3 circuits)
7	Expansion valve: W Electronic expansion valve, leaving water temperature from +5°C up to +30°C
8	Model B Freecooling Glycolfree
9	Heat ecovery ° Without recovery
10	Version A High efficiency E High efficiency in low noise operation
11	Coil ° In aluminium R In copper S In tinned copper V In painted aluminium-copper (epoxy paint)
12	Fans ° Standard M High static pressure J Inverter
13	Power supply ° 400V/3/50Hz with fuses 8 400V/3/50Hz with circuit breakers
14-15	Hydronic kit 00 Without hydronic kit PA Hydronic pump (Pump A) PB Hydronic pump (A Pump and reserve pump) (5) PC Hydronic pump (C Pump) PD Hydronic pump (C Pump and reserve pump) (5) PE Hydronic pump (E Pump) PF Hydronic pump (E Pump and reserve pump) (5) PG Hydronic pump (G Pump) PH Hydronic pump (G Pump and reserve pump) (5) PJ Hydronic pump (J Pump) PK Hydronic pump (J Pump and reserve pump) (5)

(5) Not available for size 1251÷1601/3002÷3402

Pump assembly option not available in sizes 1402, 1602, 2002

Technical Data

Mod NS freecooling Glycol free			1251	1401	1601	1801	2101	2401	1402	1602
Cooling capacity	BA	kW	272	304	338	408	465	518	285	324
	BE	kW	243	282	322	372	415	471	257	295
Total input power	BA	kW	91	104	115	144	157	177	103	119
	BE	kW	93	105	117	148	161	183	105	121
EER	BA	W/W	2,99	2,92	2,94	2,83	2,96	2,93	2,77	2,72
	BE	W/W	2,61	2,69	2,75	2,51	2,58	2,57	2,45	2,44
Cooling capacity	BA	kW	265	306	331	398	459	514	304	340
	BE	kW	251	286	307	367	424	472	285	314
Total input power	BA/BE	kW	14,0	14,0	14,0	19,8	25,3	25,5	14,0	14,0
EER	BA	W/W	18,9	21,9	23,6	20,1	18,1	20,2	21,7	24,3
	BE	W/W	17,9	20,4	21,9	18,5	16,8	18,5	20,4	22,4
External air temperature total freecooling	BA	°C	8,6	7,2	6,6	8,1	8,6	7,6	7,0	6,0
	BE	°C	8,7	7,8	7,5	8,7	9,1	8,4	6,1	6,8
Water flow rate	BA	l/h	46780	52290	58140	70180	79980	89100	49020	55730
	BE	l/h	41800	48500	55380	63980	71380	81010	44200	50740
Total pressure drop	BA	kPa	78	80	69	90	88	103	76	88
	BE	kPa	70	70	59	76	75	87	67	75

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 25°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			1251	1401	1601	1801	2101	2401	1402	1602
Electrical data										
Total input current (Chiller)	(1)	BA	A	160	180	196	238	267	299	205
	(1)	BE	A	164	182	199	245	274	309	208
Total input current (Glycolfree)	(1)	BA/BE	A	28	28	28	40	51	51	28
Maximum current (FLA)		BA/BE	A	159	182	197	228	259	292	210
Starting current (LRA)		BA/BE	A	281	322	376	438	446	492	304
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	1	1	1	1	1	1	2	2
Circuits		n°	1	1	1	1	1	1	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	6	6	6	8	10	10	6	6
Air flow rate (Chiller)	BA	m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
	BE	m ³ /h	70000	78000	87000	100000	112000	127000	74000	80000
Air flow rate (Glycolfree)		m ³ /h	102000	102000	102000	136000	170000	170000	102000	102000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
Sound data										
Sound pressure (Chiller)	BA	dB(A)	62	63	65	65	66	66	64	65
	BE	dB(A)	54	55	57	57	57	58	56	57
Sound pressure (Glycolfree)		dB(A)	62	63	65	65	66	66	64	65
Sound power (Chiller)	BA	dB(A)	94	95	97	97	98	98	96	97
	BE	dB(A)	86	87	89	89	90	90	88	89
Sound power (Glycolfree)		dB(A)	94	95	97	97	98	98	96	97
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling Glycolfree			1802	2002	2202	2352	2502	2652	2802	3002
Cooling capacity	BA	kW	411	445	472	493	520	550	574	637
	BE	kW	382	419	436	461	483	509	543	593
Total input power	BA	kW	110	118	122	133	143	155	167	171
	BE	kW	114	122	126	139	150	164	177	180
EER	BA	W/W	3,74	3,77	3,87	3,71	3,64	3,55	3,44	3,73
	BE	W/W	3,35	3,43	3,46	3,32	3,22	3,10	3,07	3,29
Cooling capacity	BA	kW	411	445	472	493	520	550	574	637
	BE	kW	382	419	436	461	483	509	543	593
Total input power	BA/BE	kW	19,8	25,3	25,3	25,4	25,5	27,1	27,2	28,0
	BA	W/W	20,8	17,6	18,7	19,4	20,4	20,3	21,1	22,8
EER	BE	W/W	19,3	16,6	17,2	18,1	18,9	18,8	20,0	21,2
External air temperature total freecooling	BA	°C	7,3	8,1	8,4	8,1	7,5	7,0	6,6	6,9
	BE	°C	7,8	7,9	9,0	8,5	8,1	7,7	7,2	7,6
Water flow rate	BA	l/h	70692	76540	81184	84796	89440	94600	98728	109564
	BE	l/h	65704	72068	74992	79292	83076	87548	93396	101996
Total pressure drop	BA	kPa	97	93	89	95	103	109	118	74
	BE	kPa	84	83	76	83	89	94	105	64

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 25°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			1802	2002	2202	2352	2502	2652	2802	3002
Electrical data										
Total input current (Chiller)	(1)	BA	A	225	261	288	305	322	344	376
	(1)	BE	A	230	266	286	308	331	349	381
Total input current (Glycolfree)	(1)	BA/BE	A	40	51	51	51	54	54	56
Maximum current (FLA)		BA/BE	A	244	264	276	293	310	333	379
Starting current (LRA)		BA/BE	A	332	377	389	415	432	473	558
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	1	1	1	1	1	1	1	1
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	8							
Air flow rate (Chiller)	BA	m ³ /h	136000	170000	170000	170000	170000	170000	170000	204000
	BE	m ³ /h	96000	124500	120000	123000	130000	130000	140000	165000
Air flow rate (Glycolfree)		m ³ /h	136000	170000	170000	170000	170000	170000	170000	204000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
			refer to the technical manual							
Sound data										
Sound pressure (Chiller)	BA	dB(A)	65	66	66	66	66	67	67	66
	BE	dB(A)	57	57	58	58	58	59	59	58
Sound pressure (Glycolfree)		dB(A)	65	66	66	66	66	67	67	66
Sound power (Chiller)	BA	dB(A)	97	98	98	98	98	99	99	99
	BE	dB(A)	89	90	90	90	90	91	91	91
Sound power (Glycolfree)		dB(A)	97	98	98	98	98	99	99	99
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling Glycolfree			3202	3402	3602	3902	4202	4502	4802	5002
Cooling capacity	BA	kW	662	729	796	857	912	973	1028	1087
	BE	kW	614	674	734	791	839	896	944	1003
Total input power	BA	kW	176	189	202	214	230	242	258	281
	BE	kW	188	200	212	223	241	252	270	296
EER	BA	W/W	3,76	3,86	3,94	4,00	3,97	4,02	3,98	3,87
	BE	W/W	3,27	3,37	3,46	3,55	3,48	3,56	3,50	3,39
Cooling capacity	BA	kW	662	729	796	857	912	973	1028	1087
	BE	kW	614	674	734	791	839	896	944	1003
Total input power	BA/BE	kW	28,0	33,8	39,6	45,1	45,3	50,8	51,0	51,0
EER	BA	W/W	23,6	21,6	20,1	19,0	20,1	19,2	20,2	21,3
	BE	W/W	21,9	19,9	18,5	17,5	18,5	17,6	18,5	19,7
External air temperature total freecooling	BA	°C	6,6	7,4	8,1	8,4	7,9	8,1	7,6	6,7
	BE	°C	7,5	8,1	8,7	8,9	8,5	8,7	8,4	7,6
Water Blow rate	BA	l/h	113864	125388	136912	147404	156864	167356	176816	186964
	BE	l/h	105608	115928	126248	136052	144308	154112	162368	172516
Total pressure drop	BA	kPa	69	79	89	89	97	96	103	100
	BE	kPa	59	68	76	76	82	81	87	85

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 15 °C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			3202	3402	3602	3902	4202	4502	4802	5002	
Electrical data											
Total input current (Chiller)	(1)	BA	A	314	336	358	375	413	430	468	496
	(1)	BE	A	326	348	370	386	426	442	482	514
Total input current (Glycolfree)	(1)	BA/BE	A	56	68	79	90	91	102	102	102
Maximum current (FLA)		BA/BE	A	394	425	456	487	520	551	584	601
Starting current (LRA)		BA/BE	A	573	635	666	674	720	751	784	920
Compressors											
Compressors			type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
			n°	2	2	2	2	2	2	2	2
Circuits			n°	2	2	2	2	2	2	2	2
Capacity control	(2)		%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant			type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger											
Exchanger			type	Shell and tube							
			n°	2	2	2	2	2	2	2	
hydraulic connections (in/out)			Ø	refer to the technical manual							
Fans standard											
Fans			type	axial	axial	axial	axial	axial	axial	axial	axial
			n°	12	14	16	18	18	20	20	20
Air flow rate (Chiller)		BA	m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
		BE	m ³ /h	174000	187000	200000	212000	227000	239000	254000	254000
Air flow rate (Glycolfree)			m ³ /h	204000	238000	272000	306000	306000	340000	340000	340000
Hydronic kit system side											
Useful static pressure			kPa	refer to the technical manual							
Sound data											
Sound pressure (Chiller)		BA	dB(A)	67	67	67	68	68	68	68	69
		BE	dB(A)	59	59	59	60	60	60	60	61
Sound pressure (Glycolfree)			dB(A)	67	67	67	68	68	68	68	69
Sound power (Chiller)		BA	dB(A)	100	100	100	101	101	101	101	102
		BE	dB(A)	92	92	92	93	93	93	93	94
Sound power (Glycolfree)			dB(A)	100	100	100	101	101	101	101	102
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Technical Data

Mod NS freecooling Glycolfree			5202	5402	5702	600	6303	6603	6903	7203
Cooling capacity	BA	kW	1146	1205	1264	1310	1371	1426	1487	1542
	BE	kW	1062	1113	1164	1206	1263	1311	1368	1416
Total input power	BA	kW	304	332	360	331	343	359	371	387
	BE	kW	322	354	386	347	358	376	387	405
EER	BA	W/W	3,77	3,63	3,51	3,96	4,00	3,97	4,01	3,98
	BE	W/W	3,30	3,14	3,02	3,48	3,53	3,49	3,53	3,50
Cooling capacity	BA	kW	1146	1205	1264	1310	1371	1426	1487	1542
	BE	kW	1062	1113	1164	1206	1263	1311	1368	1416
Total input power	BA/BE	kW	51,0	51,0	51,0	65,1	70,6	70,8	76,3	76,5
EER	BA	W/W	22,5	23,6	24,8	20,1	19,4	20,1	19,5	20,2
	BE	W/W	20,8	21,8	22,8	18,5	17,9	18,5	17,9	18,5
External air temperature total freecooling	BA	°C	6,1	5,6	5,0	7,9	8,1	7,8	7,9	7,6
	BE	°C	6,9	6,4	5,9	8,6	8,7	8,5	8,6	8,4
Water flow rate	BA	l/h	197112	207260	217408	225320	235812	245272	255764	265224
	BE	l/h	182664	191436	200208	207432	217236	225492	235296	243552
Total pressure drop	BA	kPa	94	98	104	94	94	97	98	103
	BE	kPa	81	84	88	80	80	82	83	87

Cooling

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

Freecooling Glycolfree (100%)

Evaporator water temperature (in) 25°C; Primary circuit glycol 30%; secondary system circuit glycol 0%

GENERAL DATA			5202	5402	5702	6003	6303	6603	6903	7203
Electrical data										
Total input current (Chiller)	(1)	BA	A	524	568	612	592	609	647	702
	(1)	BE	A	546	596	646	611	627	667	723
Total input current (Glycolfree)	(1)	BA/BE	A	102	102	102	130	141	142	153
Maximum current (FLA)		BA/BE	A	618	657	696	748	779	812	876
Starting current (LRA)		BA/BE	A	937	1001	1040	948	979	1012	1076
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	3	3	3	3	3
Circuits		n°	2	2	2	3	3	3	3	3
Capacity control	(2)	%	40-100	40-100	40-100	40-100	40-100	40-100	40-100	40-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Exchanger		type	Shell and tube							
		n°	2	2	2	3	3	3	3	3
hydraulic connections (in/out)		Ø	refer to the technical manual							
Fans standard										
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial
		n°	20	20	20	26	28	28	30	30
Air flow rate (Chiller)	BA	m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
	BE	m ³ /h	254000	254000	254000	327000	339000	354000	366000	381000
Air flow rate (Glycolfree)		m ³ /h	340000	340000	340000	442000	476000	476000	510000	510000
Hydronic kit system side										
Useful static pressure		kPa	refer to the technical manual							
Sound data										
Sound pressure (Chiller)	BA	dB(A)	69	69	69	69	69	70	69	69
	BE	dB(A)	63	63	63	62	62	63	63	63
Sound pressure (Glycolfree)		dB(A)	69	69	69	69	69	70	69	69
Sound power (Chiller)	BA	dB(A)	102	102	102	102	102	103	103	103
	BE	dB(A)	94	94	94	94	94	95	95	95
Sound power (Glycolfree)		dB(A)	102	102	102	102	102	103	103	103
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

(1) The electrical data of the versions without hydronic module integrated

(2) Standard expansion valve

Sound power

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

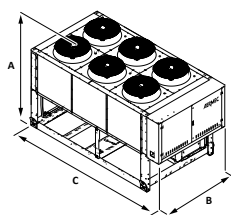
Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

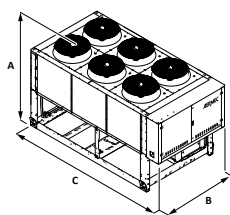
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

Dimensions (mm)

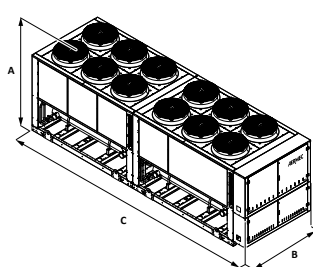
NS1251÷2401
(single module 1 circuits)



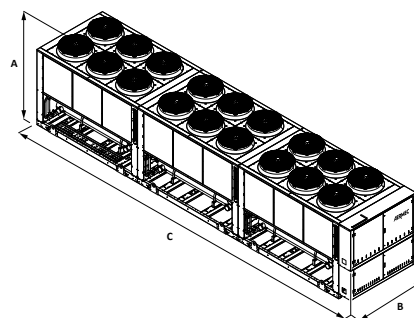
NS1402÷2802
(single module 2 circuits)



NS3002÷5702
(double module 2 circuits)



NS6003÷7203
(three module 3 circuits)



Mod. NS		Vers	1251	1401	1601	1801	2101	2401	1402	1602
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	3780	3780	3780	4770	5750	3780	3780
Weight when empty	(kg)	All		3596	3610	3968	4779	5708	3796	4158
Mod. NS		Vers	1802	2002	2202	2352	2502	2652	2802	3002
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	4770	5750	5750	5750	5750	5750	7160
Weight when empty	(kg)	All		4887	5360	5431	5968	5944	5975	7169
Mod. NS		Vers	3202	3402	3602	3902	4202	4502	4802	5002
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	7160	8150	9140	10120	10120	11100	11100
Weight when empty	(kg)	All		7566	8308	8738	10117	10388	10611	12104
Mod. NS		Vers	5202	5402	5702	6003	6303	6603	6903	7203
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	All	11100	11100	11100	14490	15470	15470	16450
Weight when empty	(kg)	All		12710	12783	12856	14467	15846	16117	16505

For transport reasons Versions BA and BE, 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.

NSI

R134a

Air cooled chillers
INVERTER screw compressors, axial fans
Cooling capacity 262÷1249 kW



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



**HIGH
SEASONAL
EFFICIENCY**

New generation INVERTER screw compressor



Features

- Available in 14 sizes
- Cooling only version
- Refrigerant R134a
- New generation INVERTER screw compressor:
 - Continuous capacity control from 15 to 100%
 - With automatic control of compression ratio
 - With opto-electronic control of oil level
- AC Inverter:
 - Refrigerant cooled
 - With control of operating field
 - With integrated data logger

High efficiency version "A"

- Operating limit up to 46 °C external air temperature
- Compressor acoustical enclosure for low noise operation
- Electronic expansion valve
- Dry expansion shell and tube evaporator optimised for refrigerant R134a
- Extremely low noise axial fans with options:
 - **M** high static pressure fans
 - **J** inverter fans

- Pump assembly option (see Unit Configurator) that includes:
 - 1 pump
 - 1 pump plus 1 standby
 - 2 expansion tanks of 25 litres
- Microprocessor controller
- Multilingual display
- Compact dimensions
- 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.
- **KRS:** Evaporator 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.

- **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.

Accessory compatibility														
	1251	1401	1601	1701	1801	2502	2802	3202	3402	3602	4203	4803	5103	5403
AER485P1	•(x1)	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP300M *	1	•	•	•										
GP400M *	1			•	•									
GP500B *	1					•	•							
GP300M+GP300M *	1							•						
GP400M+GP400M *	1								•	•				
GP300M+GP300M+GP300M *	1										•	•		
GP400M+GP400M+GP400M *	1												•	•
DCPX	69	69	69	69	69	73	73	73	73	73	73+69	73+69	73+76	73+76
KRS	2	•	•	•	•	•	•	•	•	•	•	•	•	•

1. Accessory only factory fitted
2. Accessory available for all sizes, to fit contact factory

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	15-16
Code	Size	Expansion device	Model	Heat recovery	Version	Condenser coil	Fan	Power supply	Pump

Code:

NSI

Size:

1251, 1401, 1601, 1701, 1801, 2502, 2802, 3202, 3402, 3602, 4203, 4803, 5103, 5403

Expansion device:

X - R134a electronic expansion valve, minimum leaving water temperature down to +4 °C
(for lower temperatures contact the factory)

Model:

° - Cooling only

Heat recovery:

° - Without heat recovery

Version:

A - High efficiency

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

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)

Technical Data

Mod. NSI	Vers		1251	1401	1601	1701	1801	2502	2802
Cooling capacity	A	kW	262	302	333	374	416	526	591
Total input power	A	kW	88	100	112	127	140	173	199
Water flow rate	A	l/h	45240	52110	57370	64490	71800	90720	102170
Pressure drop	A	kPa	36,0	46,9	25,2	37,1	33,5	47,3	58,8
EER	A	W/W	2,98	3,02	2,96	2,95	2,97	3,03	2,97
ESEER	A	W/W	4,69	4,68	4,64	4,63	4,67	4,78	4,69
Power supply		V/ph/Hz	430/3/50Hz						
Total input current	A	A	140	159	179	202	223	275	315
Maximum current (FLA)	A	A	180	211	242	275	309	357	416
Starting current (LRA)	A	A	18	18	18	20	20	119	119
Capacity control	A	%	24-100	20-100	18-100	17-100	15-100	12-100	12-100
Compressors	A	type	screw - inverter						
		n°	1	1	1	1	1	2	2
Refrigerant	A	type	R134a						
Refrigerant circuits	A	n°	1	1	1	1	1	2	2
Air flow rate	A	m ³ /h	116000	110000	106000	145000	136000	180000	173000
Fans	A	type	Axial						
	A	n°	6	6	6	8	8	10	10
Evaporator	A	type	shell and tube evaporator						
		n°	1	1	1	1	1	1	1
Sound power	A	dB(A)	94,9	96,7	98,5	98,2	97,8	97,9	99,7
Maximum external air temp.		°C	46	46	46	46	46	46	46

Mod. NSI	Vers		*3202	*3402	*3602	*4203	*4803	*5103	*5403
Cooling capacity	A	kW	666	748	833	906	999	1122	1249
Total input power	A	kW	224	253	280	299	337	380	420
Water flow rate	A	l/h	114730	128970	143600	156340	172100	193460	215410
Pressure drop	A	kPa	25,2	37,1	33,5	46,9	25,2	37,1	33,5
EER	A	W/W	2,97	2,95	2,98	3,03	2,97	2,95	2,98
ESEER	A	W/W	4,64	4,63	4,67	4,76	4,64	4,63	4,67
Power supply		V/ph/Hz	430/3/50Hz						
Total input current	A	A	358	403	446	476	537	605	669
Maximum current (FLA)	A	A	483	550	618	632	725	825	927
Starting current (LRA)	A	A	121	126	126	225	225	232	232
Capacity control	A	%	9-100	9-100	9-100	7-100	7-100	7-100	7-100
Compressors	A	type	screw - inverter						
		n°	2	2	2	3	3	3	3
Refrigerant	A	type	R134a						
Refrigerant circuits	A	n°	2	2	2	3	3	3	3
Air flow rate	A	m ³ /h	212000	290000	272000	330000	318000	435000	408000
Fans	A	type	Axial						
	A	n°	12	16	16	18	18	24	24
Evaporator	A	type	shell and tube evaporator						
		n°	2	2	2	3	3	3	3
Sound power	A	dB(A)	101,5	101,2	100,8	101,5	103,3	103,0	102,6
Maximum external air temp.		°C	46	46	46	46	46	46	46

* Not certified model EUROVENT

Data declared in accordance with UNI EN 14511:2011

COOLING MODE

Entering water temperature	12 °C
Leaving water temperature	7 °C
External air temperature	35 °C

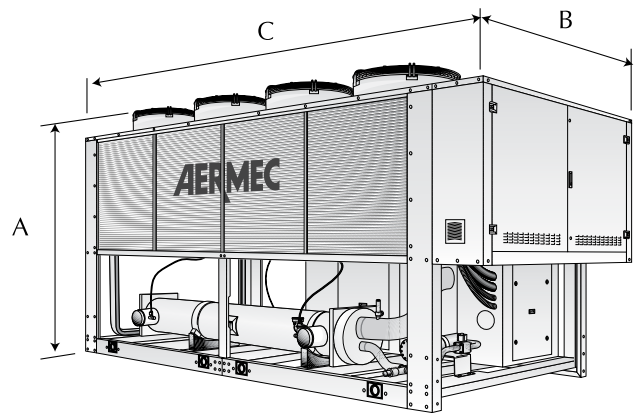
Sound power:

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

Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



Mod. NSI			1251	1401	1601	1701	1801	2502	2802	3202	3402	3602	4203	4803	5103	5403
Height	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Lenght	C	mm	3780	3780	3780	4770	4770	5750	5750	7160	9140	9140	10540	10540	13510	13510
Weight empty		kg	2979	3082	3252	3763	3956	5407	5562	6493	7464	7850	9194	9704	11155	11734

NSI Air cooled chillers INVERTER screw compressors, axial fans Cooling capacity from 257 to 1193 kW 1251/5403 free-cooling

R134a



New generation INVERTER screw compressor

Features

- Available in 14 sizes
- Freecooling version
- Refrigerant R134a
- New generation INVERTER screw compressor:
 - Continuous capacity control from 15 to 100%
 - With automatic control of compression ratio
 - With opto-electronic control of oil level
- AC Inverter:
 - Refrigerant cooled
 - With control of operating field
 - With integrated data logger
- Three-way valve installed on the hydraulic circuit to modulate flow to the Free-cooling coil
- **High efficiency version "A"**
 - Operating limit up to 44 °C external air temperature
 - Compressor acoustical enclosure for low noise operation
 - Electronic expansion valve
 - Dry expansion shell and tube evaporator optimised for refrigerant R134a
 - Extremely low noise axial fans with options:
 - J inverter fans
- Pump assembly option (see Unit Configurator) that includes:
 - 1 pump
 - 1 pump plus 1 standby
 - 2 expansion tanks of 25 litres
- Microprocessor controller
- Multilingual display
- Compact dimensions
- 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.
- **KRS: Evaporator 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.**
- **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.

Accessory compatibility														
	1251	1401	1601	1701	1801	2502	2802	3202	3402	3602	4203	4803	5103	5403
GP300M *	1	•	•	•										
GP400M *	1			•	•									
GP500B *	1					•	•							
GP300M+GP300M *	1							•						
GP400M+GP400M *	1								•	•				
GP300M+GP300M+GP300M *	1										•	•		
GP400M+GP400M+GP400M *	1												•	•
KRS	2	•	•	•	•	•	•	•	•	•	•	•	•	•

1. Accessory only factory fitted
2. Accessory available for all sizes, to fit contact factory

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	15-16
Code	Size	Expansion device	Model	Heat recovery	Version	Condenser coil	Fan	Power supply	Pump

Code:

NSI

Size:

1251, 1401, 1601, 1701, 1801, 2502, 2802, 3202, 3402, 3602, 4203, 4803, 5103, 5403

Expansion device:

X - R134a electronic expansion valve, minimum leaving water temperature down to +4 °C
(for lower temperatures contact the factory)

Model:

F - Freecooling

Heat recovery:

° - Without heat recovery

Version:

A - High efficiency

Condenser coil:

° - Aluminium

R - Copper

S - Tinned copper

V - Anti-corrosion coated aluminium

Fan:

° - Standard

J - Inverter

Power supply:

° - 400V/3/50Hz with fuses

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)

Technical Data

Mod. NSI	Vers		1251	1401	1601	1701	1801	2502	2802
Cooling capacity	FA	kW	257	295	319	368	397	516	566
Total input power	FA	kW	92	104	119	133	149	182	214
Water flow rate	FA	l/h	44430	50980	55160	63620	68690	89480	98180
Pressure drop	FA	kPa	49	64	46	66	66	106	126
EER	FA	W/W	2,79	2,83	2,68	2,77	2,67	2,83	2,64
Cooling capacity (freecooling)	FA	kW	277	282	286	365	394	505	510
Total input power	FA	kW	10,5	10,5	10,5	14,0	14,0	17,5	17,5
Water flow rate	FA	l/h	44430	50980	55160	63620	68690	89480	98180
Pressure drop	FA	kPa	81	105	94	140	152	206	246
EER	FA	W/W	26,38	26,88	27,24	26,07	28,14	28,86	29,14
Power supply	V/ph/Hz		430/3/50Hz						
Total input current	FA	A	146	165	190	211	236	287	336
Total input current (freecooling)	FA	A	19	19	19	25	25	32	32
Maximum current (FLA)	FA	A	183	214	245	279	313	362	416
Starting current (LRA)	FA	A	21	21	21	24	24	124	124
Capacity control	FA	%	24-100	20-100	18-100	17-100	15-100	12-100	12-100
Compressors	FA	type n°	screw - inverter						
			1	1	1	1	1	2	2
Refrigerant	FA	type	R134a						
Refrigerant circuits	FA	n°	1	1	1	1	1	2	2
Air flow rate	FA	m ³ /h	107000	102000	102000	136000	136000	170000	170000
Fans	FA	type	Axial						
	FA	n°	6	6	6	8	8	10	10
Evaporator	FA	type	shell and tube evaporator						
		n°	1	1	1	1	1	1	1
Sound power	FA	dB(A)	99	101	103	102	102	102	104
Maximum external air temp.		°C	44	44	44	44	44	44	44

Mod. NSI	Vers		3202	3402	3602	4203	4803	5103	5403
Cooling capacity	FA	kW	639	736	795	885	959	1105	1193
Total input power	FA	kW	238	266	297	312	357	398	457
Water flow rate	FA	l/h	110320	127240	137390	152950	165470	190860	206080
Pressure drop	FA	kPa	46	66	66	64	46	66	66
EER	FA	W/W	2,68	2,77	2,67	2,83	2,68	2,77	2,61
Cooling capacity (freecooling)	FA	kW	572	730	788	847	858	1095	1182
Total input power	FA	kW	21,0	28,0	28,0	31,5	31,5	42,0	42,0
Water flow rate	FA	l/h	110320	127240	137390	152950	165470	190860	206080
Pressure drop	FA	kPa	94	140	152	105	94	140	152
EER	FA	W/W	27	26	28	27	27	26	28
Power supply	V/ph/Hz		430/3/50Hz						
Total input current	FA	A	379	421	471	495	569	632	726
Total input current (freecooling)	FA	A	38	51	51	57	57	76	76
Maximum current (FLA)	FA	A	489	558	626	641	734	837	939
Starting current (LRA)	FA	A	127	134	134	234	234	244	244
Capacity control	FA	%	9-100	9-100	9-100	7-100	7-100	7-100	7-100
Compressors	FA	type n°	screw - inverter						
			2	2	2	3	3	3	3
Refrigerant	FA	type	R134a						
Refrigerant circuits	FA	n°	2	2	2	3	3	3	3
Air flow rate	FA	m ³ /h	204000	272000	272000	306000	306000	408000	408000
Fans	FA	type	Axial						
	FA	n°	12	16	16	18	18	24	24
Evaporator	FA	type	shell and tube evaporator						
		n°	2	2	2	3	3	3	3
Sound power	FA	dB(A)	106	105	105	106	107	107	107
Maximum external air temp.		°C	44	44	44	44	44	44	44

Data declared in accordance with UNI EN 14511:2011

RAFFREDDAMENTO

COOLING MODE

Entering water temperature 12 °C

Leaving water temperature 7 °C

External air temperature 35 °C

FREECOOLING MODE

Entering water temperature 15 °C

External air temperature 2 °C

Glycol 0%

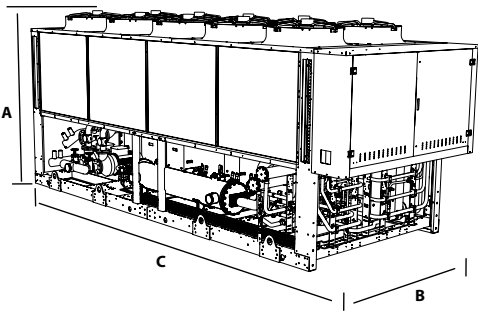
Sound power:

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

Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



Mod. NSI			1251	1401	1601	1701	1801	2502	2802	3202	3402	3602	4203	4803	5103	5403
Height	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Lenght	C	mm	3780	3780	3780	4770	4770	5750	5750	7160	9140	9140	10940	10940	13510	13510
Weight empty		kg	3296	3399	3569	4216	4400	5955	6128	7127	8349	8594	10154	10664	12493	13046

TBX

R134a

Air cooled chillers with two-stage centrifugal compressor and axial fans
Cooling capacity 259÷861kW



Aermec

participates in the EUROVENT:
LCP programme, up to 600 kW
The products are listed on the site
www.eurovent-certification.com
* not certified models



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 "o" and Low noise "L" Versions:
 1. Operating limit up to 42 °C external air temperature
 2. Compressor acoustical enclosure for low noise operation
 3. Fan speed control
- High efficiency "A" and High efficiency low noise "E" Versions:
 1. Operating limit up to 42 °C external air temperature
 2. Compressor acoustical enclosure for low noise operation
 3. EC (Electronically Commutated) fan
- Modulating capacity control microprocessor system
- Evaporator trace heating.
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **GP: Protective grille.** Condenser coil external protection against accidental or hail damage.
- **Factory fitted.**
- **PTW: Remote control of the chiller operating functions.**

TBX	VERS.	1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
AER485P1	All	✓(x1)	✓(x1)	✓(x1)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
AERWEB300-6	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-18	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-6G	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AERWEB300-18G	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GP300M	L E	✓											
GP400M	L E		✓										
GP500M	L E			✓	✓	✓							
GP 300M+300M	L E						✓						
GP 300M+400M	L E							✓	✓	✓			
GP 400M+400M	L E										✓		
GP 400M+500M	L E											✓	
GP 500M+500M	L E												✓
GP 300M	° A	✓											
GP 400M	° A		✓										
GP 500M	° A			✓	✓	✓							
GP 300M+300M	° A						✓						
GP 300M+400M	° A							✓	✓				
GP 400M+400M	° A									✓			
GP 400M+500M	° A										✓		
GP 500M+500M	° A											✓	✓
AVX	°	570	571	571	572	573	574	575	575	576	576	577	577
	L	570	571	571	572	573	574	575	575	575	576	576	577
	A	570	571	571	572	573	574	575	575	576	576	578	578
	E	570	571	571	572	573	574	575	575	575	576	576	577

Note:

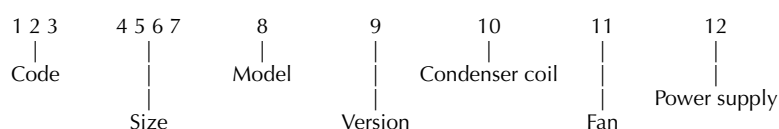
The number in brackets (x2) indicates the quantity to order.

AER485P1 - GP Accessory only factory fitted.

Unit Configurator

Combinando opportunamente le numerose opzioni disponibili, è possibile configurare ciascun modello in modo tale da soddisfare le più specifiche esigenze impiantistiche.

Configuration fields:



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	126	126	132	138	188	194	200	206	206
	L	A	24	30	36	126	126	132	138	188	188	194	200	206
	A	A	30	38	46	136	136	144	152	202	210	218	226	226
	E	A	30	38	46	136	136	144	152	202	202	210	218	226
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											
Refrigerant	n°		1	1	1	2	2	2	2	2	2	2	2	2
Refrigerant circuit	type		R134a											
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
Electric heater	n°/W		1/170	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250
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

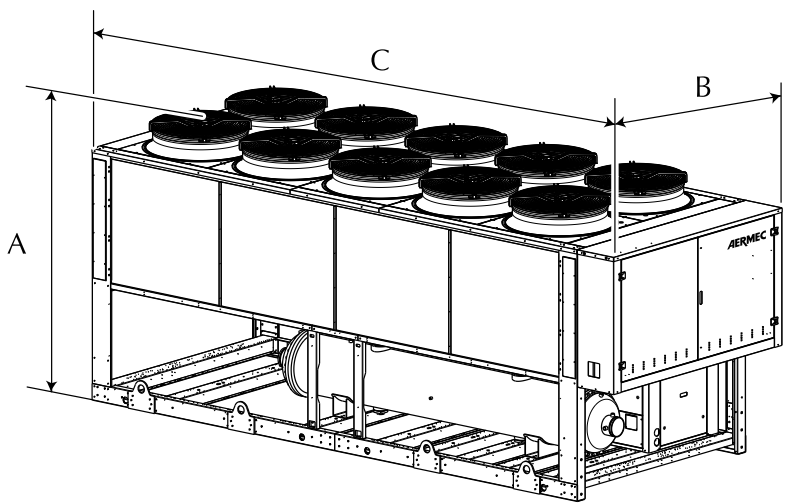
Sound power:

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

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 $\Delta t = 2.5^\circ\text{C}$
- 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

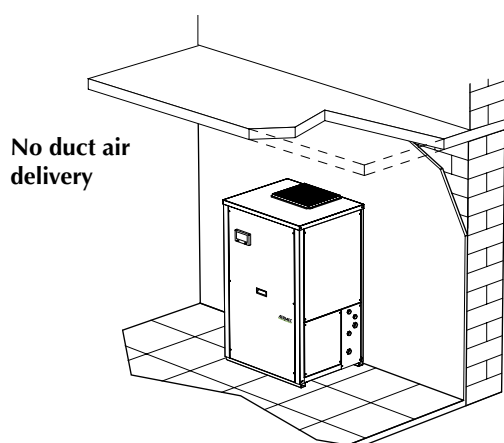
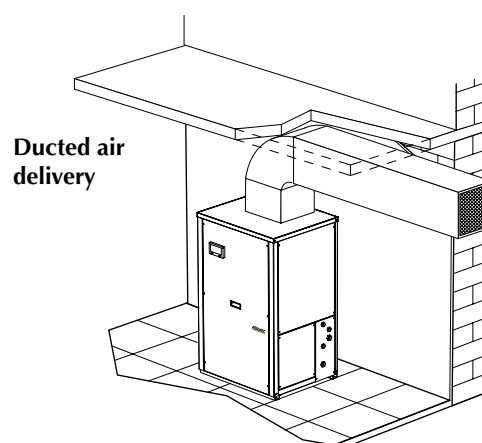
- **PR3**: Simplified remote panel. Allows basic machine checks to be carried out (turning on and off, signalling of alarms and season changeover). Can be made remote with shielded cable up to 30 m.
- **PRD1**: Smart remote panel. Repeats at a distance the functions of the panel on the machine. Can be 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.

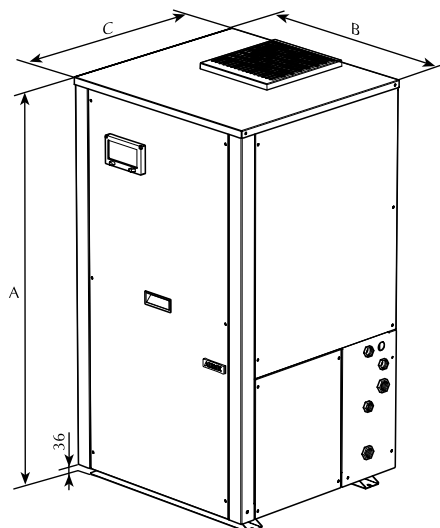
■ Cooling:

- water outlet temperature 7 °C;
- ambient air temperature 35 °C;
- $\Delta t = 5$ °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

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
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	20H	25	25H	30	30 H
Cooling capacity	kW	6,92	6,92	8,23	8,23	9,74	9,74
Total input power*	kW	1,95	1,92	2,22	2,22	2,62	2,62
Evaporator water flow rate	l/h	1187	1187	1410	1410	1668	1668
Useful head system side circuit	kPa	63	63	61	61	59	59
Condenser water consumption	l/h	1485	1485	1758	1758	2080	2080
Condenser pressure drop	kPa	18	9	13	10	12	11
Heating capacity	kW	-	7,77	-	9,26	-	10,85
Total input power*	kW	-	2,59	-	3,08	-	3,57
Condenser water flow rate	l/h	-	1342	-	1600	-	1875
Useful head system side circuit	kPa	-	61	-	59	-	57
Condenser water consumption (10 °C)	l/h	-	929	-	1106	-	1300
Evaporator pressure drop	kPa	-	2	-	2	-	2
ENERGY INDEX							
EER	W/W	3,56	3,60	3,70	3,71	3,72	3,72
ESEER	W/W	4,59	4,00	4,58	4,23	4,58	4,24
COP	W/W	-	3,00	-	3,00	-	3,04
ELECTRICAL DATA							
Power supply		230V ~ 50Hz.					
Input current	A	10,18	10,18	11,89	11,89	13,18	13,81
Input current	A	-	13,39	-	15,70	-	18,31
Max. current (FLA)	A	15	15	18	18	24	24
Peak current (LRA)	A	61	61	76	76	100	100
SOUND DATA							
Sound power	dB(A)	56,5	56,5	56,5	57,0	57,5	57,5
Sound pressure	dB(A)	48,0	48,0	48,5	48,5	49,0	49,0
HYDRAULIC CONNECTION							
Hydraulic connection**	Ø	1"	1"	1"	1"	1"	1"
Storage tank capacity	l	23	23	23	23	23	23
Compressor	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll

DATA DECLARED IN ACCORDANCE WITH UNI EN 14511: 2011

Cooling

- processed water temperature 7 °C;
- water inlet temperature to condenser 30 °C;
- $\Delta t = 5$ °C.

Heating

- processed water temperature 50 °C;
- water inlet temperature to evaporator 10 °C;
- $\Delta t = 5$ °C.

* including circulator pump power consumption.

** male Gas connection.

Sound power

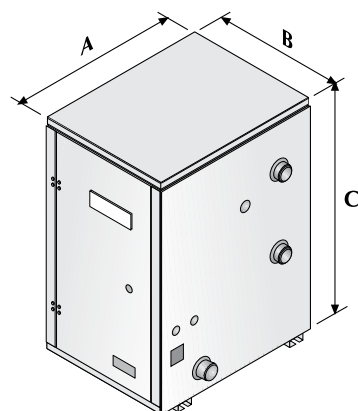
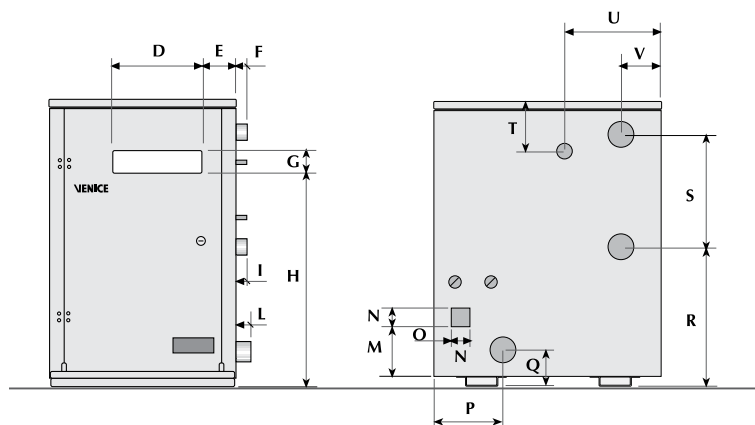
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Power supply = 1~ 230V 50Hz.

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				

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

WRL 025/160 cooling only

R410A

Variable Multi Flow

VMF



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

Water-cooled chillers
Cooling capacity from 6,58÷43,40 kW



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.
- **AERSET:** The AERSET accessory allows the automatic compensation of the operating

setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.

Mandatory accessory: AER485 or MODU-485A

- **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;

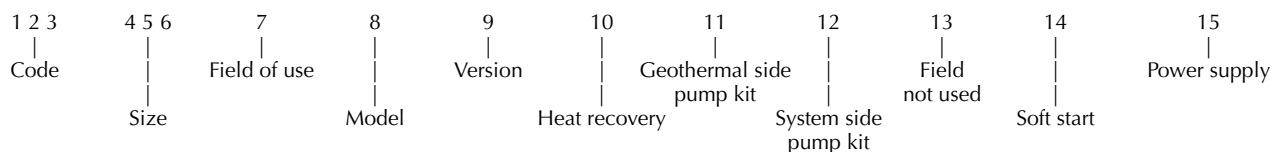
Accessory compatibility

WRL	025	030	040	050	070	080	100	140	160
VT (version °)	9	9	9	9	9	9	15	15	15
VT (version A)	15	15	15	15	15	15	15A	15A	15A
KSAE	•	•	•	•	•	•	•	•	•
PR3	•	•	•	•	•	•	•	•	•
AERSET	•	•	•	•	•	•	•	•	•
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:



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

GEOHERMAL 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)
 I - Inverter Pump (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 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/1/50Hz (only for models WRL 025 - 030 - 040)

Configuration example:

WRL050Y°°°°°°S°

Technical Data

WRL MODEL			025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1	kW	6,58	8,27	11,26	-	-	-	-	-	-
	400V-3		6,58	8,37	11,16	14,56	19,06	21,66	29,26	38,08	43,40
Input power	230V-1	kW	1,58	1,92	2,70	-	-	-	-	-	-
	400V-3		1,53	1,84	2,60	3,27	4,22	4,95	6,51	8,46	9,91
Input current	230V-1	A	7,20	9,20	11,70	-	-	-	-	-	-
	400V-3		4,29	4,57	4,90	6,40	7,40	9,10	12,80	14,80	18,20
Evaporator water flow rate	230V-1	l/h	1138	1432	1951	-	-	-	-	-	-
	400V-3		1138	1449	1934	2520	3299	3752	5061	6591	7514
Pressure drop (system side) <i>nom</i>	230V-1	kPa	15,0	18,0	23,0	-	-	-	-	-	-
	400V-3		15,0	19,0	23,0	23,0	27,0	32,0	27,0	36,0	41,0
Water consumption (geothermal side)	230V-1	l/h	1391	1739	2380	-	-	-	-	-	-
	400V-3		1383	1741	2348	3044	3973	4539	6109	7940	9090
Pressure drop (geothermal side)	230V-1	kPa	28,0	29,0	36,0	-	-	-	-	-	-
	400V-3		28,0	30,0	35,0	32,0	40,0	46,0	42,0	57,0	66,0

ENERGY INDEX

E.E.R.	230V-1	W/W	4,15	4,30	4,18	-	-	-	-	-	-
	400V-3		4,29	4,56	4,29	4,45	4,51	4,37	4,49	4,50	4,38
ESEER	230V-1	W/W	4,22	4,41	4,34	-	-	-	-	-	-
	400V-3		4,42	4,65	4,46	4,59	4,58	4,46	4,89	4,84	4,69

COMPRESSOR

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 - 50 - 100	0 - 50 - 100	0 - 50 - 100

EVAPORATOR

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
Quantity			n°	1	1	1	1	1	1	1	1

CONDENSER

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
Quantity			n°	1	1	1	1	1	1	1	1

BUFFER TANK

Tank capacity			l	100	100	100	100	100	150	150	150
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EXPANSION VESSEL

WRL with pump only			n°/l	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

SOUND DATA

Sound power			dB(A)	55,5	57,0	57,5	59,0	60,0	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

WRL-A MODEL			025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1	kW	6,64	8,36	11,39	-	-	-	-	-	-
	400V-3		6,64	8,46	11,29	14,73	19,27	21,90	29,95	39,00	44,41
Input power	230V-1	kW	1,60	1,90	2,60	-	-	-	-	-	-
	400V-3		1,55	1,81	2,52	3,18	4,06	4,75	6,40	8,32	9,71
Input current	230V-1	A	8,77	10,81	13,36	-	-	-	-	-	-
	400V-3		4,67	4,21	6,56	9,21	10,37	12,16	15,49	18,19	21,82
Evaporator water flow rate	230V-1	l/h	1138	1432	1951	-	-	-	-	-	-
	400V-3		1138	1449	1933	2520	3299	3751	5061	6591	7514
Useful head system side "P"	230V-1	kPa	66	63	53	-	-	-	-	-	-
	400V-3		66	63	53	82	72	65	147	164	158
Water consumption (geothermal side)	230V-1	l/h	1391	1739	2380	-	-	-	-	-	-
	400V-3		1383	1741	2348	3044	3973	4539	6110	7940	9090
Useful head geothermal side "B"	230V-1	kPa	52	48	37	-	-	-	-	-	-
	400V-3		52	48	38	68	53	43	116	137	125

ENERGY INDEX

E.E.R.	230V-1	W/W	4,14	4,41	4,37	-	-	-	-	-	-
	400V-3		4,27	4,69	4,49	4,63	4,74	4,61	4,68	4,68	4,57

HYDRONIC KIT			025	030	040	050	070	080	100	140	160
Useful head system side	°	P	230V-1	66	62	53	-	-	-	-	-
			400V-3N	66	61	53	80	71	63	146	162
	A	P	230V-1	65	61	52	-	-	-	-	-
			400V-3N	65	60	52	75	63	53	130	133
Useful head geothermal side	°	N	400V-3N	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	236	247
			400V-3N	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	220	218
	All	B	230V-1	52	48	38	-	-	-	-	-
			400V-3	52	48	38	68	53	43	116	137
		U	400V-3	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	203	222
			230V-1	52	48	38	-	-	-	-	-
			400V-3	52	48	38	68	53	43	n.d.	n.d.
			230V-1	52	48	38	-	-	-	-	-
			400V-3	52	48	38	88	80	73	n.d.	n.d.
			230V-1	52	48	38	-	-	-	-	-

DATA DECLARED IN ACCORDANCE WITH UNI EN 14511: 2011

COOLING

Evaporator inlet temperature	12°C
Evaporator outlet temperature	7°C
Condenser inlet temperature	30°C
Condenser outlet temperature	35°C

SOUND POWER:

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

SOUND PRESSURE:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Technical Data "E"

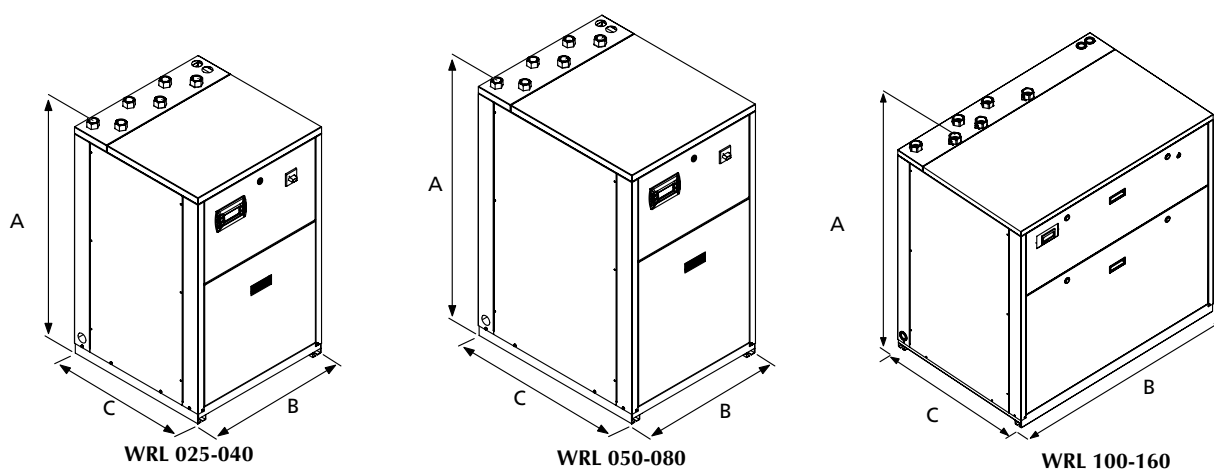
WRL-E Model			025E	030E	040E	050E	070E	080E	100E	140E	160E
Cooling capacity	230V-1	kW	6,2	7,8	10,4	-	-	-	-	-	-
	400V-3		6,3	7,8	10,4	13,4	17,4	19,7	26,8	34,7	39,4
Input power	230V-1	kW	1,7	2,1	2,9	-	-	-	-	-	-
	400V-3		1,7	2,0	2,8	3,6	4,5	5,3	7,2	9,1	10,6
Input current	230V-1	A	8,3	10,5	12,8	-	-	-	-	-	-
	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 "00"	230V-1	kPa	13	15	20	-	-	-	-	-	-
	400V-3		13	15	20	18	21	24	21	28	31

Cooling:

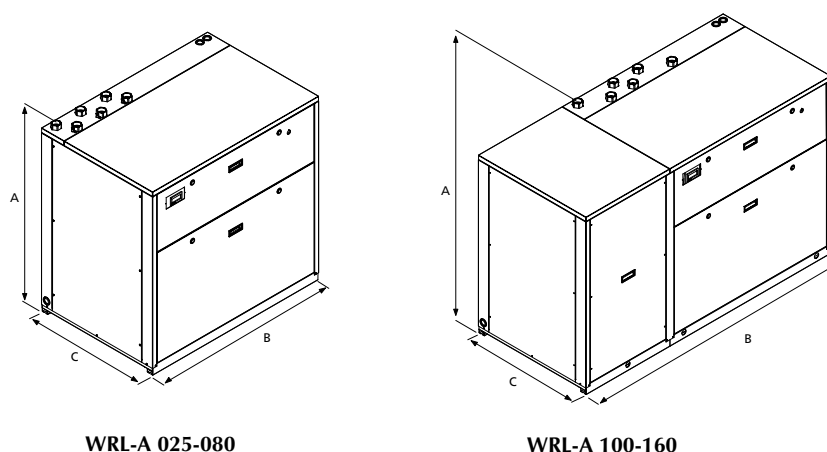
Condensing temperature
Outlet water temperature

45°C
7°C; Δt 5°C

Dimensions (mm)



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	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.

WRL 180/650 reversible water-side

R410A



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



PGD1
Simplified remote panel.
ACCESSORY



- **HIGH EFFICIENCIES**
- **POSSIBILITY OF HAVING: PARTIAL HEAT RECOVERY PRODUCTION OF HOT WATER UP TO 55 °C**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

High efficiency

Aermec has designed these units to optimise heat pump operation, providing high performances and low energy consumption.

Connections

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

Silent

The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

Dynamic set point

Using the latest generation of electronic controller and with an external air temperature sensor (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

Advantages

Using the latest innovative technology and focus on maximum quality gives the WRL series the maximum energy efficiency, ease of installation, and most versatile application using renewable energy sources.

Model

- **WRL_°:** Reversible water-side
- **WRL_K:** Reversible water-side with low pressure drops system side
- **WRL_E:** Evaporating unit

Technical features

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low

electrical input

- Flow switch as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
- The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- Latest generation of electronic controller
- User-friendly remote mounted control panel with alarm notification.

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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.

Field	Code
1,2,3	WRL
4,5,6	Size 180-200-300-400-500-550-600-650
7	Filed use <ul style="list-style-type: none"> ◦ Standard (Standard with leaving water above +4°C)
	Y Low temperature with leaving liquid down to -8°C
	X Electronic expansion valve with leaving liquid down to +4°C (for different temperature contact us)
8	Model <ul style="list-style-type: none"> ◦ Reversible water-side
	K Reversible water-side with low pressure drops system side
	E Evaporating unit (1)
9	Version <ul style="list-style-type: none"> ◦ Standard
10	Heat recovery <ul style="list-style-type: none"> ◦ Without heat recovery
	D Con desurriscaldatore
11	Pumps condenser side <ul style="list-style-type: none"> ◦ Without pumps
	B Low static pressure pump
	U High static pressure pump
	F Low static pressure inverter pump
	I High static pressure inverter pump
	V 2-way modulating valve
	Pumps evaporator side <ul style="list-style-type: none"> ◦ Without pumps
	P Low static pressure pump
	N High static pressure pump
12	Field not used <ul style="list-style-type: none"> ◦
13	Soft-start <ul style="list-style-type: none"> ◦ Without Soft Start
	S With Soft Start
13	Power supply <ul style="list-style-type: none"> ◦ 400V/3/50Hz
	5 500V/3/50Hz (2)

(1) shipped with holding charge only

(2) 500V/3/50Hz only size 400+650

Technical data

Model WRL_° standard			180°	200°	300°	400°	500°	550°	600°	650°
Cooling capacity	(3)	kW	50	64	74	86	100	129	150	168
Input power	(3)	kW	10,95	14,52	16,91	18,34	20,51	26,96	30,98	35,73
E.E.R.	(3)	W/W	4,52	4,42	4,39	4,67	4,86	4,79	4,83	4,71
E.S.E.E.R.	-		4,61	4,43	4,40	4,40	5,47	5,67	5,23	4,82
Evaporator water flow rate		l/h	8559	11094	12838	14838	17205	22320	25872	29126
Pressure drops system side		kPa	27	43	46	60	30	49	53	67
Condenser water flow rate		l/h	10176	13210	15290	17459	20242	26265	30400	34312
Pressure drops geothermal side		kPa	27	46	62	81	32	52	57	72
Heating capacity		kW	51	69	76	89	102	140	161	180
Input power		kW	12,79	17,46	19,16	21,29	23,49	32,51	37,00	42,04
COP		W/W	4,02	3,97	3,98	4,18	4,35	4,32	4,34	4,28
Condenser water flow rate		l/h	8808	11858	13031	15201	17494	24030	27518	30791
Pressure drops system side		kPa	20	37	44	61	24	44	47	59
Evaporator water flow rate		l/h	6668	8963	9859	11711	13560	18640	21381	23843
Pressure drops geothermal side		kPa	19	31	30	41	20	37	38	47

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C
(3) EUROVENT for reversible units side water certifies the sun made cold (12/7°C - 30/35°C)

Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

Model WRL_K low pressure drops			180K	200K	300K	400K	500K	550K	600K	650K
Cooling capacity	(3)	kW	50	66	76	88	100	133	154	173
Input power	(3)	kW	10,95	14,49	16,91	18,31	20,51	26,75	30,81	35,55
E.E.R.	(3)	W/W	4,52	4,56	4,52	4,83	4,86	4,98	5,01	4,89
E.S.E.E.R.	-		4,61	4,43	4,40	4,40	5,47	5,67	5,23	4,82
Evaporator water flow rate		l/h	8559	11427	13223	15284	17205	22990	26648	30000
Pressure drops system side		kPa	27	34	42	48	30	24	33	41
Condenser water flow rate		l/h	10176	13543	15675	17904	20242	26934	31176	35186
Pressure drops geothermal side		kPa	27	48	65	85	32	55	60	76
Heating capacity		kW	51	71	78	91	102	144	164	184
Input power		kW	12,79	17,46	19,19	21,30	23,49	32,38	37,00	41,96
COP		W/W	4,02	4,06	4,06	4,28	4,35	4,44	4,46	4,39
Condenser water flow rate		l/h	8808	12135	13336	15563	17494	24605	28178	31528
Pressure drops system side		kPa	20	39	46	64	24	46	49	62
Evaporator water flow rate		l/h	6668	9530	10482	12422	13560	19754	22655	25274
Pressure drops geothermal side		kPa	19	25	30	35	20	20	25	32

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C
(3) EUROVENT for reversible units side water certifies the sun made cold (12/7°C - 30/35°C)

Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

Model WRL_E evaporating unit			180E	200E	300E	400E	500E	550E	600E	650E
Cooling capacity		kW	46,0	60,1	69,6	80,1	90,6	121,3	140,2	158,7
Input power		kW	12,4	16,0	18,5	19,8	23,1	29,6	34,1	38,5
E.E.R.		W/W	3,7	3,8	3,8	4,1	3,9	4,1	4,1	4,1
Evaporator water flow rate		l/h	7900	10340	11980	13770	15580	20860	24110	27300
Pressure drops system side		kPa	23	39	39	56	25	42	47	57

Cooling

Evaporator water temperature (in/out) 12°C/7°C; Condensing temperature 45°C

Technical data

GENERAL DATA				180	200	300	400	500	550	600	650
Electrical data											
Total input current cooling mode	(4)	°	A	19,90	25,00	28,50	31,90	36,30	50,80	59,30	68,30
Total input current heating mode	(4)	°	A	22,80	29,50	32,00	35,90	41,10	57,80	66,70	76,10
Total input current cooling mode	(4)	E	A	22,9	28,5	32,4	35,6	41,8	55,8	64,8	73,9
Maximum current (FLA)			A	32	42	45	52	59	99	112	125
Starting current (LRA)			A	119	123	125	167	174	265	310	323
Compressors											
Compressors			type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
			n°	2	2	2	2	2	2	2	2
Circuits			n°	1	1	1	1	1	1	1	1
Capacity control			%	50-100	50-100	50-100	50-100	50-100	50-100	50-100	50-100
Refrigerant			type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
System side exchanger											
Evaporator			type	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Geothermal side exchanger											
Condenser			type	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Heat recovery side exchanger											
Desuperheater			type	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate
			n°	1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)			Ø	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Hydronic kit				to							
Sound data											
Sound pressure			dB(A)	29,1	29,8	30,9	39,1	35,6	47,1	47,1	47,1
Sound power			dB(A)	61,1	61,8	62,9	71,1	67,6	79,1	79,1	79,1
Power supply			V/ph/Hz	400V/3/50Hz							

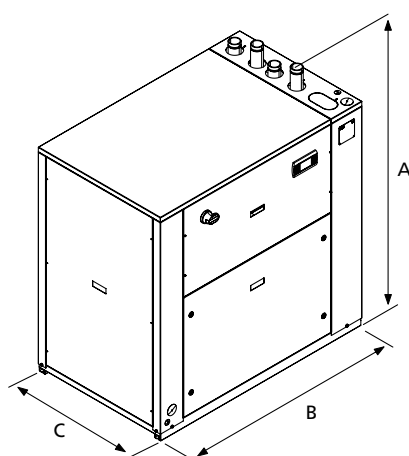
(4) The electrical data of the versions without hydronic module integrated

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

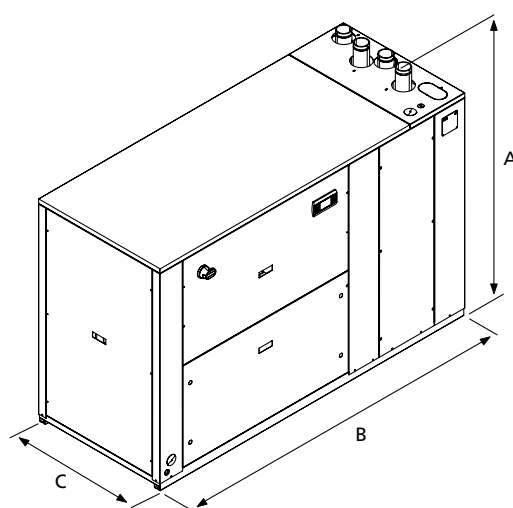
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Dimensions (mm)



WRL 180-400



WRL 500-650

Model WRL			180	200	300	400	500	550	600	650
Height	A	mm	1380	1380	1380	1380	1380	1380	1380	1380
Width	B	mm	1320	1320	1320	1320	2060	2060	2060	2060
Depth	C	mm	845	845	845	845	845	845	845	845
Weight		kg	375	375	381	388	518	594	670	715

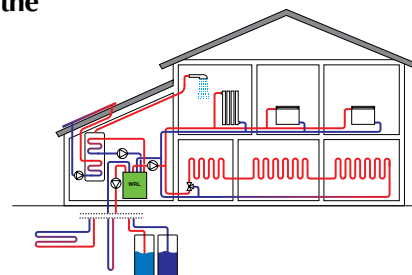
WRL 025/160 heat pump

R410A



Aermec participates in the EUROVENT Programme: LCP / W / P / C
The products of interest can be found on the website
www.eurovent-certification.com

Water cooled reversible heat pumps for the production of hot water up to 60 °C
Cooling capacity from 6÷40 kW
Heating capacity from 8÷48 kW



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.

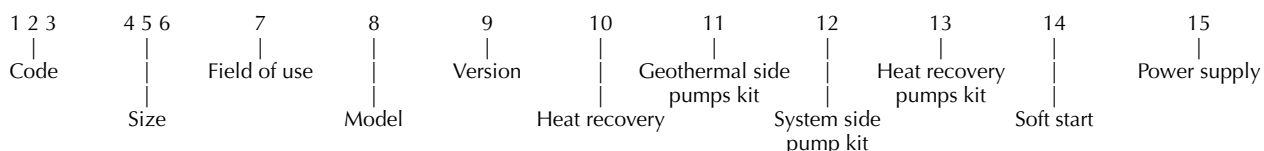
Accessory compatibility

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)	15	15	15	15	15	15	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:



CODE:

WRL

SIZE:

025 - 030 - 040 - 050 - 070 - 080 - 100 - 140 - 160

FIELD OF USE:

X - Electronic thermostatic valve models water produced up to +4°C (for lower temperatures please 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)

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 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/1/50Hz (only for size WRL 025 - 030 - 040)

4 - 230V/3/50Hz (only for size WRL 050-070-080-100-140-160)

Technical Data

WRL-H MODEL			025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1	kW	6,28	7,87	10,26	-	-	-	-	-	-
	400V-3		6,28	8,09	10,37	13,71	17,66	20,16	27,43	35,27	40,28
Input power	230V-1	kW	1,75	1,99	2,55	-	-	-	-	-	-
	400V-3		1,65	1,91	2,42	3,18	4,42	5,19	6,35	8,80	10,32
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
Evaporator water flow rate	230V-1	l/h	1086	1362	1776	-	-	-	-	-	-
	400V-3		1086	1400	1795	2372	3055	3489	4741	6100	6968
Pressure drop (system side)	230V-1	kPa	13,0	15,0	20,0	-	-	-	-	-	-
	400V-3		13,0	15,8	20,4	19	22	26	22	29	33
Condenser water flow rate	230V-1	l/h	1371	1686	2186	-	-	-	-	-	-
	400V-3		1354	1708	2183	2886	3770	4326	5771	7525	8636
Pressure drop (geothermal side)	230V-1	kPa	22,0	22,0	30,0	-	-	-	-	-	-
	400V-3		21,4	22,6	30,0	29	36	41	37	48	56
Heating capacity	230V-1	kW	7,94	10,00	12,68	-	-	-	-	-	-
	400V-3		7,93	9,53	12,56	16,47	21,03	24,19	32,93	41,90	48,17
Input power	230V-1	kW	2,10	2,60	3,35	-	-	-	-	-	-
	400V-3		2,09	2,43	3,14	4,13	5,32	6,23	8,22	10,55	12,41
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
Condenser water flow rate	230V-1	l/h	1355	1709	2164	-	-	-	-	-	-
	400V-3		1354	1628	2127	2813	3591	4130	5628	7157	8224
Pressure drop (system side)	230V-1	kPa	20,4	22,0	29,0	-	-	-	-	-	-
	400V-3		20,0	20,0	28,0	28,0	32,3	37,6	35,3	43,1	51,0
Condenser water flow rate (geothermal side)	230V-1	l/h	1700	2150	2720	-	-	-	-	-	-
	400V-3		1700	2064	2746	3589	4569	5232	7178	9110	10403
Pressure drop (geothermal side)	230V-1	kPa	34,0	37,4	46,5	-	-	-	-	-	-
	400V-3		32,3	33,6	46,5	43,3	49,6	58,8	52,3	62,0	73,0

ELECTRICAL INDEX

E.E.R.	230V-1	W/W	3,58	3,95	4,02	-	-	-	-	-	-
	400V-3		3,81	4,24	4,28	4,31	3,99	3,89	4,32	4,01	3,90
E.S.E.E.R.	230V-1	W/W	3,97	4,42	4,37	-	-	-	-	-	-
	400V-3		4,23	4,66	4,64	4,65	4,23	4,10	5,28	4,84	4,56
C.O.P.	230V-1	W/W	3,78	3,85	3,79	-	-	-	-	-	-
	400V-3		3,80	3,92	4,00	3,99	3,95	3,88	4,01	3,97	3,88

WRL-HA MODEL			025	030	040	050	070	080	100	140	160
Cooling capacity	230V-1	kW	6,34	7,95	10,37	-	-	-	-	-	-
	400V-3		6,33	8,18	10,48	13,87	17,86	20,38	28,09	36,12	41,22
Input power	230V-1	kW	1,79	1,99	2,48	-	-	-	-	-	-
	400V-3		1,69	1,90	2,35	3,12	4,29	5,01	6,25	8,74	10,19
Input current	230V-1	A	10,07	12,40	15,14	-	-	-	-	-	-
	400V-3		5,77	5,40	7,44	9,97	11,93	13,22	15,94	19,99	22,60
Evaporator water flow rate	230V-1	l/h	1086	1362	1776	-	-	-	-	-	-
	400V-3		1085	1400	1795	2372	3055	3489	4742	6100	6968
Useful head system side "P"	230V-1	kPa	67	65	57	-	-	-	-	-	-
	400V-3		68	64	57	85	78	71	154	170	164
Condenser water flow rate	230V-1	l/h	1371	1686	2186	-	-	-	-	-	-
	400V-3		1353	1708	2183	2886	3770	4326	5771	7525	8636
Useful head geothermal side "B"	230V-1	kPa	52	50	44	-	-	-	-	-	-
	400V-3		53	49	44	72	59	49	126	144	133
Heating capacity	230V-1	kW	7,57	9,68	12,12	-	-	-	-	-	-
	400V-3		7,55	9,13	11,94	15,73	19,98	23,09	31,09	39,40	45,47
Input power	230V-1	kW	2,11	2,56	3,24	-	-	-	-	-	-
	400V-3		2,11	2,43	3,01	4,02	5,11	5,95	8,00	10,33	12,09
Input current	230V-1	A	12,16	14,79	18,23	-	-	-	-	-	-
	400V-3		6,46	6,48	8,32	11,13	13,45	15,04	18,44	23,41	26,71
Condenser water flow rate	230V-1	l/h	1307	1673	2092	-	-	-	-	-	-
	400V-3		1304	1577	2061	2719	3453	3986	5438	6894	7947
Pressure drop (system side)	230V-1	kPa	62	57	49	-	-	-	-	-	-
	400V-3		62	60	50	77	68	59	138	160	152
Evaporator water flow rate	230V-1	l/h	967	1251	1550	-	-	-	-	-	-
	400V-3		963	1178	1559	2051	2594	2982	4102	5185	5940
Pressure drop (geothermal side)	230V-1	kPa	66	63	61	-	-	-	-	-	-
	400V-3		66	65	61	93	88	83	166	176	171

ELECTRICAL INDEX

E.E.R.	230V-1	W/W	3,54	3,99	4,17	-	-	-	-	-	-
	400V-3		3,75	4,30	4,45	4,44	4,17	4,07	4,49	4,14	4,04
C.O.P.	230V-1	W/W	3,59	3,79	3,73	-	-	-	-	-	-
	400V-3		3,58	3,76	3,96	3,92	3,91	3,88	3,89	3,81	3,76

HYDRONIC KIT

Usefoul head system side	P	230V-1	kPa	67	65	57	-	-	-	-	-
		400V-3N	kPa	69	64	57	85	78	71	154	170
	N	400V-3N	kPa	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	243	255
Usefoul head geothermal side	B	230V-1	kPa	52	50	44	-	-	-	-	-
		400V-3N	kPa	58	55	46	72	59	49	126	147
	U	400V-3N	kPa	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	213	233
		230V-1	kPa	62	60	54	-	-	-	-	-
	I	400V-3N	kPa	67	65	56	87	78	71	n.d.	n.d.

PERFORMANCE IN ACCORDANCE WITH UNI EN14511:2011

Cooling:

- Plant side water temperature (in/out)
- Source side water temperature (in/out)

12°C/7°C
30°C/35°C

Heating:

- Plant side water temperature (in/out)
- Source side water temperature (in/out)

40°C/45°C
10°C/7°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

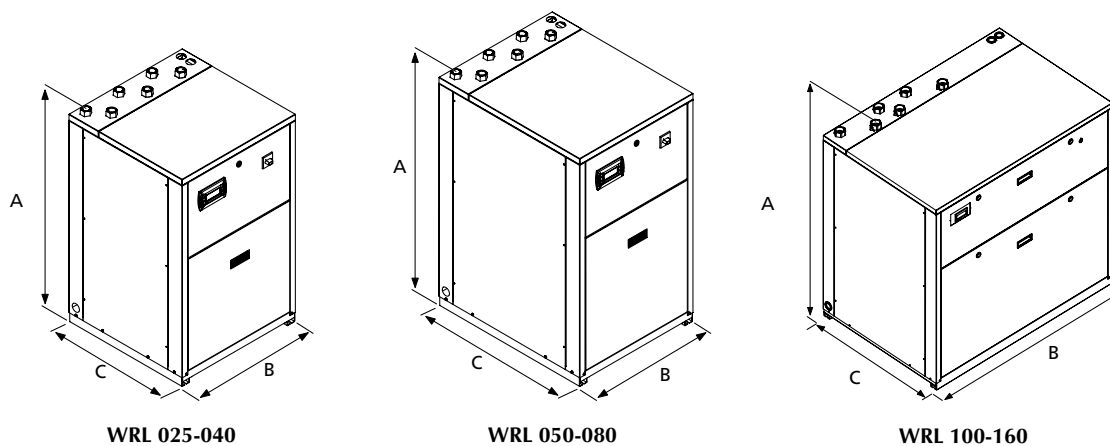
SOUND POWER

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

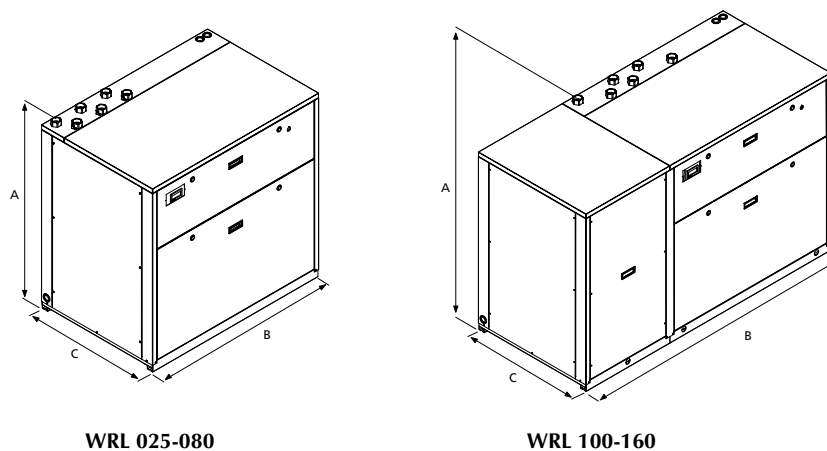
SOUND PRESSURE

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)



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		025HA	030HA	040HA	050HA	070HA	080HA	100HA	140HA	160HA
Height (A)	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
Width (B)	mm	1157	1157	1157	1157	1157	1157	1757	1757	1757
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.

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

WRL

**180 / 650
reversible
refrigerant
circuit**



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



PGD1
Simplified remote panel.
ACCESSORY

**Water cooled reversible heat pumps
for the production of hot water up to 55°C**
Cooling capacity from 45÷157kW
Heating capacity from 53÷184kW



- **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	45	59	65	79	93	120	140	157
Input power	Kw	10,96	14,83	16,47	18,68	20,23	27,69	31,44	35,97
Input current	A	20	25	28	32	36	52	60	69
Evaporator water flow rate	l/h	7740	10286	11180	13726	16030	20709	24166	27142
Evaporator pressure drop	kPa	20	37	37	55	25	40	40	50
Condenser water flow rate	l/h	9365	12453	13595	16419	19034	24780	28795	32405
Condenser pressure drop	kPa	32	55	53	76	35	58	58	73
Heating capacity	Kw	53	71	77	93	107	144	165	184
Input power	Kw	13,04	17,76	19,11	22,57	23,98	33,06	37,16	42,60
Input current	A	23	29	31	37	41	57	65	75
Condenser water flow rate	l/h	9113	12175	13154	15913	18298	24705	28247	31523
Condenser pressure drop	kPa	30	52	49	72	32	58	56	70
Evaporator water flow rate	l/h	12009	16042	17343	21229	24645	33289	38175	42437
Evaporator pressure drop	kPa	49	89	92	132	61	107	101	125
Energy index									
E.E.R.	W/W	4,09	4,01	3,93	4,24	4,59	4,33	4,45	4,36
E.S.E.E.R.	W/W	4,72	4,53	4,58	4,54	5,62	5,43	5,42	5,00
C.O.P.	W/W	4,08	4,01	4,03	4,13	4,46	4,37	4,44	4,33
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 1/2"	2 1/2"	2 1/2"	2 1/2"
Quantity	n°	1	1	1	1	1	1	1	1
System side heat exchanger		PLATES							
Hydraulic connections	ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Quantity	n°	1	1	1	1	1	1	1	1
Desuperheater (optional)		PLATES							
Hydraulic connections	ø	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
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

WRL-H model		180	200	300	400	500	550	600	650
Usefoul head	P kPa	141	120	117	92	114	116	105	147
system side	N kPa	217	195	193	169	193	247	233	210
Usefoul head	B-F kPa	126	96	95	140	172	148	133	102
geothermal side	U-I kPa	202	173	226	194	225	213	193	158

PERFORMANCE IN ACCORDANCE WITH UNI EN14511: 2011

COOLING

Evaporator inlet temperature	12°C
Evaporator outlet temperature	7°C
Condenser inlet temperature	30°C
Condenser outlet temperature	35°C

HEATING

Evaporator inlet temperature	10°C
Evaporator outlet temperature	5°C
Condenser inlet temperature	40°C
Condenser outlet temperature	45°C

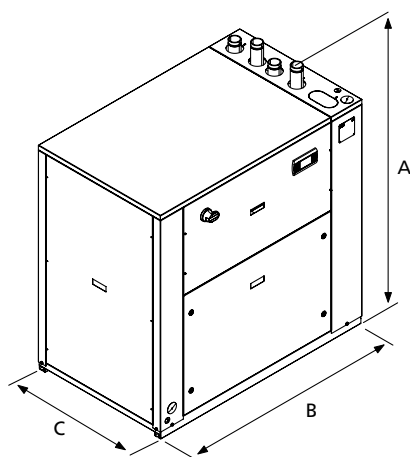
SOUND POWER

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

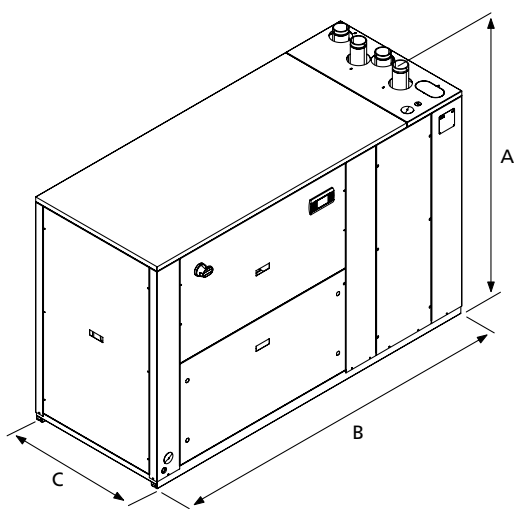
SOUND PRESSURE

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)



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	2060	2060	2060	2060
Depth (C)	mm	845	845	845	845	845	845	845	845
Weight empty	kg	370	370	381	388	522	598	708	753

R410A



Aermec adheres to the EUROVENT Certification Programme: LCP
The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **HEAT PUMP WITH REFRIGERANT SIDE REVERSING FOR GEOTHERMAL APPLICATIONS**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**
- **PRODUCTION OF HOT WATER UP TO 55 °C**

Characteristics

NXW is the range of water cooled heat pumps that operate with refrigerant R410a. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

Maximum energy efficiency

For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

Models available

NXW°: water side reversible heat pump
NXWH: refrigerant side reversible heat pump

All models are available in low noise version Integrated hydronic module on system side/ on geothermal side

The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the geothermal side.

Advanced controls

The NXW controller provides several functions:

- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

Construction details:

- Structure and base in hot dip galvanised sheet steel with epoxy paint 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.

- ed at time of order and is available factory fitted only.
- **AVX:** spring anti-vibration mounts.
- **DRE:** Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only available for 400V-3-phase power supply. Factory fitted only.

Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400
AER485P1	Alls	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•
PGD1	Alls	•	•	•	•	•	•	•	•	•	•	•
AVX												
Water side reversible heat pump ¹⁰⁰¹	°	319	319	301	301	301	303	310	314	316	316	315
With n°1 pumps	°	320	320	320	320	320	312	651	665	653	654	654
With n°2 pumps	°	320	320	309	309	309	312	651	665	653	654	654
With n°3 pumps	°	320	320	309	309	309	312	651	665	653	654	654
With n°4 pumps	°	309	309	310	310	310	312	651	665	653	654	654
refrigerant side reversible heat pump "H"		319	319	301	301	302	310	310	314	316	315	317
With n°1 pumps	°	320	320	320	309	309	651	651	665	654	654	654
With n°2 pumps	°	320	320	303	309	311	651	651	665	654	654	654
With n°3 pumps	°	309	309	303	311	312	651	651	665	654	654	654
With n°4 pumps	°	309	309	312	312	312	651	651	665	654	654	654
Water side reversible heat pump ¹⁰⁰¹		309	309	310	303	303	310	314	314	315	315	317
With n°1 pumps	L	321	321	311	311	651	651	652	653	654	659	659
With n°2 pumps	L	311	311	31	311	651	651	652	653	654	659	659
With n°3 pumps	L	311	311	312	312	651	651	652	653	654	659	659
With n°4 pumps	L	312	312	312	310	651	651	652	653	654	659	659
refrigerant side reversible heat pump "H"		309	309	310	303	304	314	314	315	317	317	318
With n°1 pumps	L	311	311	311	311	651	652	665	653	659	659	659
With n°2 pumps	L	311	311	312	313	651	652	665	653	659	659	659
With n°3 pumps	L	312	312	312	313	651	652	665	653	659	659	659
With n°4 pumps	L	312	312	312	313	651	652	665	653	659	659	659
Evaporating unit "E"		319	319	301	301	301	303	310	314	316	316	315
With n°1 pumps		320	320	320	320	320	312	651	665	653	654	654
With n°2 pumps		320	320	309	309	309	312	651	665	653	654	654
With n°3 pumps		320	320	309	309	309	312	651	665	653	654	654
With n°4 pumps		309	309	310	310	310	312	651	665	653	654	654
Evaporating unit low nois versions "LE"		309	309	310	303	303	310	314	314	315	315	317
With n°1 pumps		321	321	311	311	651	651	652	653	654	659	659
With n°2 pumps		311	311	31	311	651	651	652	653	654	659	659
With n°3 pumps		311	311	312	312	651	651	652	653	654	659	659
With n°4 pumps		312	312	312	310	651	651	652	653	654	659	659
Model with total heat recovery "T"		303	303	310	310	310	314	652	315	322	322	322
Model with total heat recovery low nois versions "LT"		312	312	651	651	652	652	652	323	324	324	324
RIF	Alls	98	98	95	95	95	95	95	96	97	97	97
DRE	Alls	501	551	601	651	701	751	801	901	1001	1251	1401

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.

1 2 3	4 5 6 7	8	9	10	11	12	13	14***	15***
Code		Field of use		Version		Heat recovery		Pumps Evaporator	
	Size		Model		Evaporator		Power supply		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 thermostatic valve, max. temp. of water produced: +4°C
(for lower temperatures please contact us)

Model:

- ° - water side reversible heat pump
- H - refrigerant side reversible heat pump

Version:

- ° - Standard
- L - Low Noise

Evaporator:

- ° - Standard
- E - Evaporating unit (shipped with holding charge only)

Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)
- T - With total heat recovery

Power supply:

- ° - 400V 3~ 50Hz with circuit breakers
- 4 - 220V 3~ 50Hz with circuit breakers*
- 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

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 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 ° - NXW L

Size			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity (E)	400V/3	kW	112	120	148	166	188	222	257	291	325	354	384
Total input power (E)	400V/3	kW	23.08	24.93	30.65	34.36	38.93	45.59	53.00	60.28	66.51	72.63	78.66
E.E.R. (E)	400V/3	W/W	4.83	4.83	4.84	4.84	4.83	4.87	4.85	4.82	4.89	4.87	4.88
E.S.E.E.R.	400V/3	-	6,01	6,02	6,01	6,04	6,02	6,05	6,03	6,02	6,06	6,05	6,06
Total current input	400V/3	A	48.30	50.60	58.40	63.00	86.00	94.00	102.00	120.00	138.00	140.00	143.00
Evaporator water flow rate	400V/3	l/h	19264	20812	25628	28724	32508	38356	44376	50224	56072	61060	66220
Pressure drops user side	400V/3	kPa	30	35	32	40	43	47	49	55	35	36	36
Condenser water flow rate	400V/3	l/h	22891	24717	30448	34100	38603	45480	52611	59669	66611	72547	78655
Pressure drops source side	400V/3	kPa	25	29	29	37	37	45	60	38	29	34	36
Heating capacity	400V/3	kW	119	129	161	182	205	243	280	319	357	389	420
Total input power	400V/3	kW	27.16	29.37	36.59	41.13	46.75	55.09	63.75	72.25	80.80	87.98	95.11
COP	400V/3	W/W	4.39	4.41	4.41	4.42	4.39	4.41	4.40	4.41	4.42	4.42	4.41
Total current input	400V/3	A	53.3	56.2	66	72.0	94.0	105.0	115.0	135.0	154.0	160.0	165.0
Condenser water flow rate	400V/3	l/h	20468	22188	27692	31215	35195	41624	47988	54696	61232	66736	72068
Pressure drops user side	400V/3	kPa	20	23	24	31	31	38	50	32	25	29	30
Evaporator water flow rate	400V/3	l/h	16138	17515	21859	24596	27763	32882	37890	43143	48291	52651	56839
Pressure drops source side	400V/3	kPa	21	25	23	29	31	34	36	41	26	27	27

ELECTRICAL DATA

Maximum current (FLA)	400V/3	A	75	80	96	107	122	146	169	193	217	231	248
Starting current (LRA)	400V/3	A	240	245	227	238	289	319	341	398	422	490	504

Data declared in accordance with EN 14511:2011 - (E) EUROVENT for reversible units on the water side certifies the sun made cold (12-7°C - 30-35°C)

Cooling:

- User side water temperatures (in/out) 12°C/7°C
- Source side water temperatures (in/out) 30°C/35°C

Heating:

- User side water temperatures (in/out) 40°C/45°C
- Source side water temperatures (in/out) 10°C/5°C

Modello NXW H - NXW HL

Size			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity	400V/3	kW	105.71	113.66	140.62	159.52	180.47	211.33	242.12	277.29	313.35	341.23	369.14
Total input power	400V/3	kW	23.92	25.84	31.24	35.39	40.20	47.13	54.23	62.17	70.41	76.61	82.74
E.E.R.	400V/3	W/W	4.42	4.40	4.50	4.51	4.49	4.48	4.46	4.46	4.45	4.45	4.46
E.S.E.E.R.	400V/3	-	5,73	5,71	5,76	5,85	5,76	5,79	5,64	5,72	5,85	5,77	5,80
Total current input	400V/3	A	49	52	60	65	87	95	104	122	140	144	147
Evaporator water flow rate	400V/3	l/h	18232	19608	24252	27520	31132	36464	41796	47816	54008	58824	63640
Pressure drops user side	400V/3	kPa	17	20	19	24	24	29	38	24	19	22	24
Condenser water flow rate	400V/3	l/h	22023	23693	29203	33108	37488	43899	50293	57865	65250	71030	76810
Pressure drops source side	400V/3	kPa	25	29	28	35	35	42	55	36	28	32	34
Heating capacity	400V/3	kW	125.61	136.04	166.09	187.97	210.77	270.08*	310.89*	325.88	366.17	400.48	434.77
Total input power	400V/3	kW	27.96	30.32	36.86	41.75	46.94	55.60*	64.58*	72.55	80.76	88.67	96.49
COP	400V/3	-	4.49	4.49	4.51	4.50	4.49	4.86	4.81	4.49	4.53	4.52	4.51
Total current input	400V/3	A	53.3	56.2	65.1	71.0	92.7	105.01	115.01	133.1	151.9	157.8	162.7
Condenser water flow rate	400V/3	l/h	21536	23316	28478	32216	36130	37475	43059	55886	62828	68702	74576
Pressure drops user side	400V/3	kPa	24	28	26	33	32	31	40	33	26	30	32
Evaporator water flow rate	400V/3	l/h	28589	30965	37822	42843	47999	46267	53207	74186	83446	91221	99023
Pressure drops source side	400V/3	kPa	43	49	46	58	58	46	61	58	46	52	58

ELECTRICAL DATA

Maximum current (FLA)	400V/3	A	75	80	75	107	122	146	169	193	217	231	248
Starting current (LRA)	400V/3	A	240	245	240	238	289	319	341	398	422	490	504

Data declared in accordance with EN 14511:2011

Cooling:

- User side water temperatures (in/out) 12°C/7°C
- Source side water temperatures (in/out) 30°C/35°C

Heating:

- User side water temperatures (in/out) 40°C/45°C
- Source side water temperatures (in/out) 10°C/7°C

(*) Heating:

- User side water temperatures (in/out) 40°C/45°C
- Source side water temperatures (in/out) 10°C/5°C

Model NXW E - NXW EL

Size			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity	400V/3	kW	105	113	139	156	177	209	241	273	305	332	360
Total input power	400V/3	kW	24.9	26.8	33.0	36.9	41.7	48.8	56.5	64.7	72.3	78.8	85.3
E.E.R.	400V/3	W/W	4.22	4.23	4.22	4.24	4.23	4.28	4.27	4.22	4.22	4.22	4.22
Total current input	400V/3	A	54.1	56.7	65.4	70.6	96.3	105.3	114.2	134.4	154.6	156.8	160.2
Evaporator water flow rate	400V/3	l/h	18031	19480	23988	26918	30381	35935	41488	46976	52463	57187	61909
Pressure drops user side	400V/3	kPa	26	31	28	35	38	41	43	48	31	32	32

ELECTRICAL DATA

Maximum current (FLA)	A	75	80	96	107	122	146	169	193	217	231	248
Starting current (LRA)	A	240	245	227	238	289	319	341	398	422	490	504

COOLING LINES (0 - 10 m.)

Delivery line (C1+C2)	400V/3	Ø mm	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/42	42/42
Liquid line (C1+C2)	400V/3	Ø mm	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/35	35/35

Cooling:

- User side water temperatures (in/out) 12°C/7°C
- Condensing temperature 45°C
- Δt 5°C

Technical Data

Size		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
compressors							Scroll					
N° compressors/ N° 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					
Hydraulic connection "OH"	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"	3"
Hydraulic connection "H"												
Quantity	n°						1					
Condenser							Plate					
Hydraulic connection "OH"	ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3" 3"	3"	3"	3"
Hydraulic connection "H"												
Quantity	n°						1					
Expansion vessel												
n°/capacity	n°/l	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25
Calibration	bar	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
Sound data												
Sound power	dB(A)	°/H	78	79	79	80	82	86	88	88	90	90
		L/HL	72	73	73	74	76	80	82	82	84	84
Sound pressure	dB(A)	°/H	46	47	47	48	50	54	56	56	58	58
		L/HL	40	41	41	42	44	48	50	50	52	52

Sound power:

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

Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

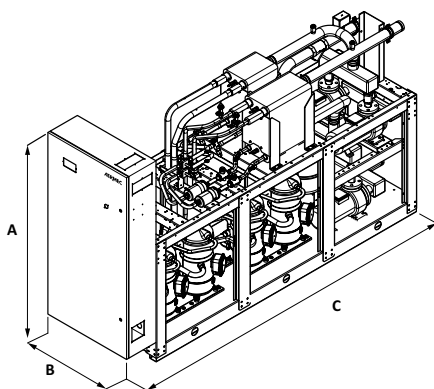
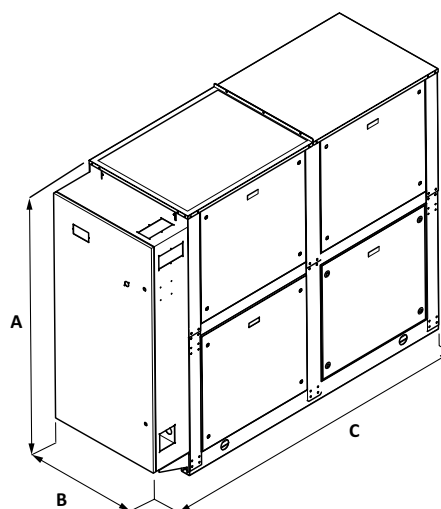
Dimensions (mm)

Mod. NXW ° / H / E			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	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
Length	C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420
	°		578	582	682	690	727	882	989	1180	1417	1461	1539
Weight	H	kg	628	633	734	743	791	948	1042	1275	1545	1577	1657
	E		525	530	610	619	638	796	904	1044	1260	1304	1358

Mod. NXW L / HL / EL			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	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
Length	C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420
	L		750	755	854	863	900	1054	1187	1378	1615	1659	1737
Weight	HL	kg	801	805	907	915	963	1121	1240	1473	1743	1774	1855
	EL		697	702	781	791	810	968	1104	1244	1460	1504	1558

Mod. NXW ° / NXW H POMPE			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	mm	1775	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit										

Mod. NXW L / NXW HL POMPE			0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	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
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit										



NXP

**Multipurpose
Water/Water for indoor installation
scroll compressor plate exchanger
Cooling capacity 109÷501kW
Heating capacity 123÷560kW**

R410A



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

Characteristics

NXP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version

NXP_° Multipurpose standard
NXP_L Multipurpose Low noise

- **Operational limits (1)**
 - Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- High efficiency scroll compressors with low

power input

- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High and low pressure transducers as standard
- The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the geothermal side. (jusqu'à un maximum de 4 pompes installées)
- Microprocessor controls
 - Control from the leaving water temperature
 - Automatic rotation of compressors and pumps based on operating hours

- Programmable time-clock
- Analog Inputs Multifunction 0-10V, or da 4-20mA
- Load limiting safety control
- Electrical panel with wires numbered all the main components of security and control
- Externally mounted user interface with display of all operating parameters in 4 languages
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **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..
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current.
Available only with 400V power supply.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NXP	Vers.	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
AER485P1	All	•	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	All	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	All	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1) All	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only														
DRE	(2) All	501	551	601	651	701	751	801	901	1001	1251	1401	1401	1401
RIF	All	98	98	95	95	95	95	95	96	97	97	97	97	97

(1) Contact us for the compatibility

(2) Only available for 400V/3N/50Hz power supply

Unit Configurator

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

Field	Code
1,2,3	NXP
4,5,6,7	Size
	0500-0550-0600-0650-0700-0750-0800-0900-1000-1250-1400-1500-1650
8	Field of use:
	° standard thermostatic expansion valve (3)
9	System type
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	Version
	° Standard
	L Low noise
11	Power supply
	° 400V/3N/50Hz with circuit breakers
	4 220V/3/50Hz with circuit breakers (4)
	5 500V/3/50Hz with circuit breakers (5)
12	System integrated hydronic module
	° without pumps or buffer tank
	M n°1 low head pump
	N n°2 low head pumps
	O n°1 high head pump
	P n°2 high head pumps
13	Heat recovery integrated hydronic module
	° without pumps or buffer tank
	U n°1 low head pump
	V n°2 low head pumps
	W n°1 high head pump
	Z n°2 high head pumps

(3) leaving water above +4 °C

(4) Only size 0500÷0700

(5) Only size 0800÷1000

Technical Data

Mod. NXP Multipurpose for 2-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Heating system side														
Heating capacity	kW	123	131	159	176	211	240	289	321	353	384	434	491	551
Total input power	kW	29	32	38	43	51	59	70	78	83	91	102	117	130
COP	W/W	4,17	4,13	4,16	4,11	4,12	4,06	4,12	4,10	4,25	4,23	4,25	4,19	4,22
Water flow rate system side	l/h	21013	22491	27168	30160	36076	40998	49658	55144	60599	65943	74492	84108	94416
Total pressure drop	kPa	27	31	34	41	49	57	24	29	22	26	30	38	40
Water flow rate geothermal side	l/h	27248	29109	35220	38994	46709	52918	64027	71019	78774	85679	96918	109091	122810
Total pressure drop	kPa	36	40	39	47	51	56	40	48	36	44	50	63	67
Heating DHW side														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate DHW side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate system side	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate DHW side	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER (6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70	7,81

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C;
Condenser water temperature (in/out) 30°C/35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

Heating mode with heat recovery

Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

Cooling mode with heat recovery

heat recovery water temperature (in/out) 40°C/45°C;
Evaporator water temperature (out) 7°C

Mod. NXP Multipurpose for 4-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Heating system side														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate system side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate (cold side)	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop (cold side)	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate (hot side)	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop (hot side)	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER (6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70	7,81

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C;
Condenser water temperature (in/out) 30°C/35°C

Heating (14511:2011)

Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

Cooling mode with heat recovery

heat recovery water temperature (in/out) 40°C/45°C;
Evaporator water temperature (out) 7°C

Technical Data

DATI GENERALI			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data only cooling mode															
Total input current	(7)	A	47	50	58	65	83	90	92	100	106	135	149	169	188
only heating mode															
Total input current	(7)	A	54	58	68	76	95	103	112	123	130	154	173	196	217
only recovery mode															
Total input current	(7)	A	54	57	67	75	94	103	110	122	129	153	171	194	216
Cooling heat recovery mode															
Total input current	(7)	A	54	57	67	75	95	103	110	121	129	153	171	195	216
Maximum current (FLA)	(7)	A	71	77	91	102	124	135	163	179	195	208	237	266	295
Starting current (LRA)	(7)	A	214	220	206	216	267	323	332	340	356	459	488	600	629
Compressors															
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (geothermal)															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
System integrated hydronic module															
For more information, refer to the selection program Magellan or the technical documentation available															
Dati sonori															
Sound pressure	(8) °	dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	60
	(8) L	dB(A)	40	41	41	42	44	48	50	50	50	52	52	54	54
Sound power	(8) °	dB(A)	78	79	79	80	82	86	88	88	88	90	90	92	92
	(8) L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	86
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

Sound power

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

Sound pressure

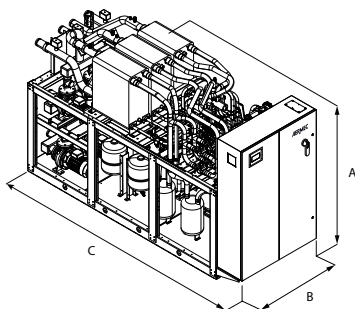
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

(7) The technical data are versions without hydronic module integrated

(8) Calculated in cooling mode

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

Dimensions (mm)



Mod. NXP (without pumps)	Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm) A	°	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm) B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm) C		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600

Mod. NXP (with pumps)	Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm) A	°	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm) B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm) C		3452	3452	3452	3452	3452	3452	3452	3750	3750	3750	3750	3750

Water cooled chillers and heat pumps with twin-rotor screw compressor
Cooling capacity from 146÷712kW
Heating capacity from 161÷771kW

High-efficiency versions



Aermec participates in the EUROVENT Program: LCP
The products of interest can be found on the website
www.eurovent-certification.com



Characteristics

- Available in 13 sizes (5 sizes single compressor and 8 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.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERWEB300		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AER485P1		✓	✓	✓	✓	✓	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
RIF		-	161	161	201	241	-	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AVX	°/L	651	651	652	652	656	658	658	658	659	667	661	661	661
	E	-	668	668	668	669	-	670	670	670	671	672	672	672
	D	-	651	652	652	654	-	658	659	659	667	661	661	661
	DE	-	668	668	668	669	-	670	670	670	671	672	672	672
	T	-	652	655	655	657	-	662	662	662	663	664	664	664
AKW		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Unit Configurator

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

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:

601, 0701, 0801, 0901, 1101, 1202, 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)
(not available for the size 0601 and 1202)
- T - With total heat recovery
(not available for the size 0601 and 1202)

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		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Cooling capacity (E)	kW	146	179	212	233	293	293	356	422	468	527	586	660	712
Total input power (E)	kW	31,75	38,10	43,24	49,28	59,68	63,52	76,83	86,53	101,02	110,73	120,50	137,70	148,19
Water flow rate evaporator	l/h	25284	30788	36636	40248	50568	50568	61404	72756	80840	90988	101136	114036	122980
Pressure drop evaporator	kPa	29	20	20	19	23	38	36	40	41	45	48	53	62
Water flow rate condenser	l/h	30268	36834	43499	48091	60045	60535	73496	86318	96690	108308	119927	135441	145856
Pressure drop condenser	kPa	40	27	27	26	31	53	50	55	58	62	67	75	88
Heating capacity	kW	161	192	219	246	309	320	376	435	493	559	627	690	771
Total input power	kW	36,93	44,08	48,85	56,89	71,20	73,83	87,85	99,22	113,57	129,03	143,58	155,22	178,00
Water flow rate condenser	l/h	27520	32852	37496	42140	52976	54868	64500	74648	84452	95804	107500	118164	131924
Pressure drop condenser	kPa	31	41	20	19	24	42	36	39	42	46	50	55	74
Water flow rate evaporator	l/h	21638	25826	29653	32990	41538	43103	50448	58798	66315	75216	84624	93491	103819
Pressure drop evaporator	kPa	19	12	12	12	14	25	22	24	25	27	29	32	44
E.E.R. (E)	W/W	4,61	4,69	4,91	4,74	4,91	4,61	4,63	4,87	4,64	4,76	4,86	4,80	4,80
EEEC ⁽¹⁾		B	B	A	B	A	B	B	A	B	B	A	A	A
C.O.P	W/W	4,35	4,35	4,47	4,32	4,34	4,34	4,28	4,39	4,34	4,33	4,37	4,44	4,33
EEEC ⁽¹⁾		B	B	A	B	B	B	B	A	B	B	A	A	A
Power supply		400V/3/50Hz												
Input current cooling	A	56	66	74	82	101	112	132	148	164	184	203	233	233
Input current heating	A	67	73	82	91	117	133	146	164	183	209	235	257	258
Maximum current (FLA)	A	105	124	144	162	182	210	248	288	324	344	364	430	430
Starting current (LRA)	A	180	163	192	229	300	285	287	336	391	462	482	575	575
Compressor	Type	Twin-rotor screw												
Quantity	n°	1	1	1	1	1	2	2	2	2	2	2	2	2
Part load (standard expansion valve)	%	40-100	40-100	40-100	40-100	40-100	20-100	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	25-100	12,5-100	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	1	1
Evaporator hydraulic connection	Ø	3"	3"	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	1	1
Condenser hydraulic connection	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Hydraulic connection type	Type	Victaulic												
Sound pressure ⁽²⁾	dB(A)	53	54	54	54	60	56	57	57	57	61	63	63	63

Data declared in accordance with UNI EN 14511:2011

(E) EUROVENT for reversible units side water certifies the sun made cold (12-7 °C - 30-35 °C)

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

The sizes 0601 and 1202 is not available without condenser

(1) EEE 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:

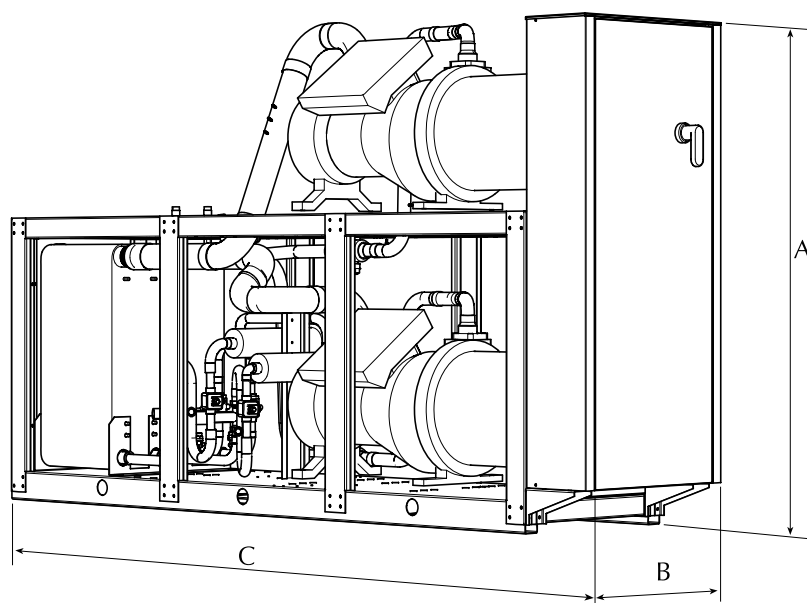
- leaving water temperature 7 °C
- entering condenser water temperature 30 °C
- Δt = 5K

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



Mod WSA (°E - L)		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Height (A) ° - E	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
Height (A) L - LE	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
Length (C)	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight	kg (°)	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095
	kg (L)	1229	1379	1429	1485	1934	1966	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	-	1479	1529	1585	2045	-	2256	2325	2397	2855	3257	3352	3352

Mod WSA (° - L)		0601T	0701 T	0801 T	0901 T	1101 T	1202T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
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

WSB

Water cooled chillers and heat pumps with twin-rotor screw compressor
Cooling capacity from 171÷701kW
Heating capacity from 185÷743kW

R134a



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



Features

- 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.

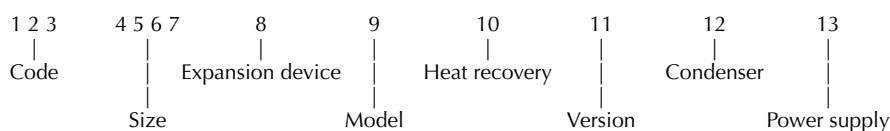
Accessory compatibility

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:



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 (E)	kW	171	200	225	280	343	395	451	505	564	645	701
Total input power (E)	kW	38,75	43,75	50,73	60,23	77,77	88,57	101,96	112,60	123,34	139,03	148,65
Water flow rate evaporator	l/h	29584	34572	38872	48332	59168	68284	77916	87204	97352	111456	121088
Pressure drop evaporator	kPa	40	35	30	34	52	57	54	56	58	57	67
Water flow rate condenser	l/h	35630	41435	46879	57809	71260	82010	93766	104688	116470	133025	143964
Pressure drop condenser	kPa	56	48	42	47	73	79	77	79	82	81	95
Heating capacity	kW	185	211	241	304	362	418	475	541	607	679	743
Total input power	kW	45,21	50,21	57,22	72,55	89,42	100,85	115,12	130,76	145,18	157,44	179,19
Water flow rate condenser	l/h	31648	36292	41452	52116	62092	71724	81528	92880	104232	116444	127452
Pressure drop condenser	kPa	41	35	31	36	54	57	56	63	62	59	80
Water flow rate evaporator	l/h	24458	28285	32302	40515	47876	55711	63227	72128	81193	91444	99184
Pressure drop evaporator	kPa	24	21	19	21	31	34	33	34	36	35	47
E.E.R. (E)	W/W	4,42	4,58	4,44	4,65	4,40	4,46	4,42	4,48	4,57	4,64	4,71
EEEC ⁽¹⁾	B	B	B	B	B	B	B	B	B	B	B	B
C.O.P.	W/W	4,09	4,21	4,22	4,18	4,05	4,14	4,13	4,14	4,18	4,31	4,15
EEEC ⁽¹⁾	B	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	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	dB(A)	58	58	59	60	61	61	62	63	63	63	63

Data declared in accordance with UNI EN 14511:2011

(E) EUROVENT for reversible units side water certifies the sun made cold (12-7 °C - 30-35 °C)

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	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) EEE 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:

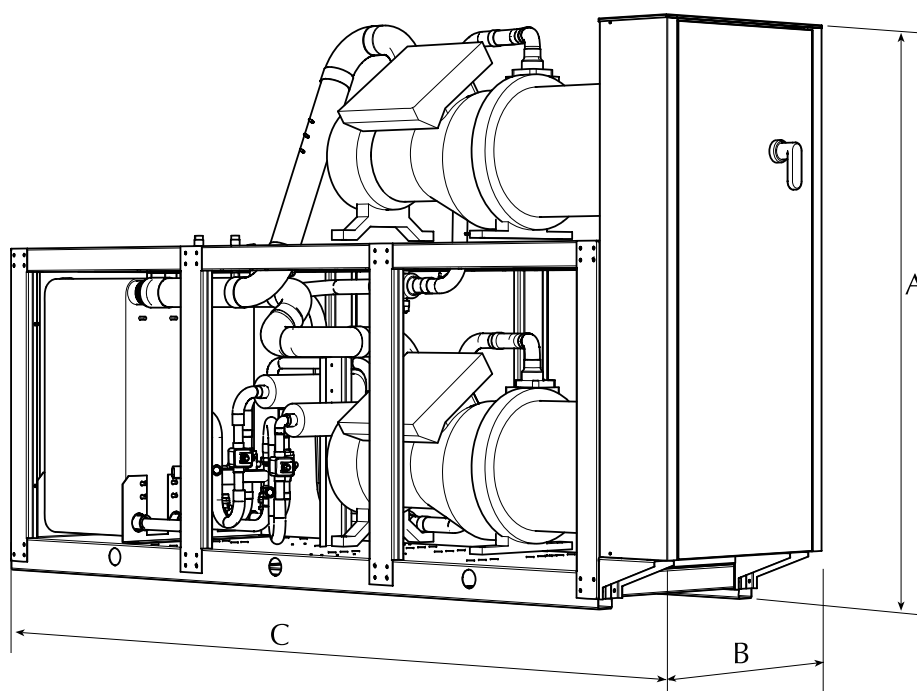
- leaving water temperature 7 °C
- entering condenser water temperature 30 °C
- Δt = 5K

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



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

WSH

Water cooled reverse cycle heat pumps with twin-rotor screw compressor
Cooling capacity 166÷668kW
Heating capacity 190÷819kW

R134a



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



- **REFRIGERANT REVERSING VALVE**
- **OPTIONAL ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
 - **COOLING DOWN TO -6°C**
 - **MODULATING CAPACITY CONTROL 25–100%**

Characteristics

- 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.

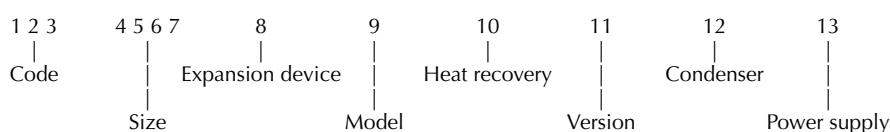
Accessory compatibility

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:



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	195	216	269	359	426	464	524	591	668
Total input power	kW	37,14	42,31	48,35	58,78	79,23	92,02	103,47	114,87	127,11	146,90
Water flow rate evaporator	l/h	28552	33712	37324	46440	61920	73616	80152	90472	102168	115584
Pressure drop evaporator	kPa	23	24	22	27	43	47	48	59	65	74
Water flow rate condenser	l/h	34434	40411	45004	55754	74338	87995	96329	108273	121776	138133
Pressure drop condenser	kPa	30	31	30	36	57	62	65	79	88	101
Heating capacity	kW	190	218	247	312	438	511	563	647	730	819
Total input power	kW	45,84	52,05	59,19	75,13	104,03	123,32	133,01	153,87	173,98	190,54
Water flow rate condenser	l/h	32651	37468	42286	53526	74937	87426	96346	110620	124894	139881
Pressure drop condenser	kPa	26	25	25	31	61	67	68	77	85	97
Water flow rate evaporator	l/h	42361	48746	54856	69480	98039	113923	126325	144907	163764	184907
Pressure drop evaporator	kPa	46	46	43	55	82	89	89	98	110	122
E.E.R.	W/W	4,46	4,62	4,48	4,58	4,53	4,63	4,49	4,56	4,65	4,55
EEEC ⁽¹⁾	C	B	C	B	B	B	B	B	B	B	B
C.O.P.	W/W	4,15	4,20	4,17	4,15	4,21	4,14	4,23	4,20	4,20	4,30
EEEC ⁽¹⁾	B	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	Twin-rotor screw									
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	Plate									
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	Vitacluc									
Condenser	Type	Plate									
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	Vitacluc									
Sound pressure	db(A)	54	54	54	60	57	57	57	61	63	63
Sound power	db(A)	86	86	86	92	89	89	89	93	95	95

(1) EEE EUROVENT energy efficiency class

Data declared in accordance with UNI EN 14511:2011

Cooling Evaporator

- leaving water temperature 7 °C
- entering condenser water temperature 12 °C

Condenser

- leaving water temperature 35 °C
- entering condenser water temperature 30 °C

Heating Evaporator

- leaving water temperature 7 °C
- entering condenser water temperature 10 °C

Condenser

- leaving water temperature 45 °C
- entering condenser water temperature 40 °C

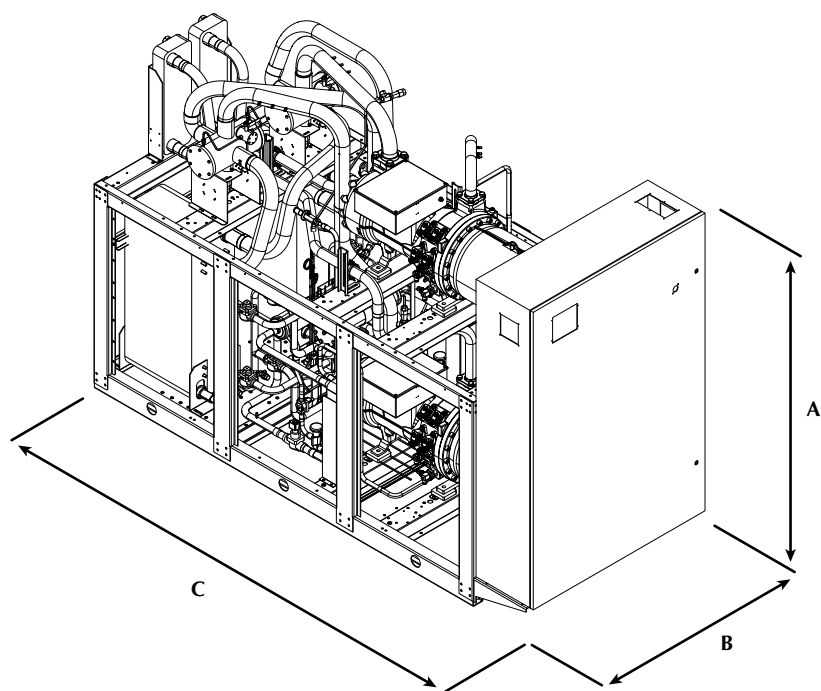
Sound power:

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

Sound pressure:

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensions (mm)



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

TW110

Water cooled modular chiller with centrifugal compressor

R134a



Aermec participates in the EUROVENT Program: LCP / W / P / C
The products of interest can be found on the website
www.eurovent-certification.com



Characteristics

- Cooling only version
 - New generation two-stage oil free centrifugal compressor with magnetic levitation friction free bearings
 - Plate heat exchangers optimised for use with refrigerant R134a
 - Extremely compact: only 805 mm wide to allow access through a standard doorway
 - Component layout designed to enable several units to be positioned side by side in restricted plant rooms. Ideal when standby is required or when cooling duty is to be increased at a later date
 - High efficiency with generously sized 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 pro-
- active controls
- Microprocessor control system
 - LCD user interface: colour touch-screen with simple and intuitive graphical menu
 - **Acoustic enclosure:** heavy gauge galvanized sheet steel with internal acoustic insulation.

Accessories

- **AER485P1TW:** RS-485 interface for supervision systems with MODBUS protocol.
- **PTW: Remote control of chiller operating functions.**
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability. (When this accessory is present, the AER485P1TW is factory fitted as standard).

Technical data

Mod.	TW 110	
Cooling capacity	kW	284
Total input power	kW	58,47
Evaporator water flow rate (7 °C)	l/h	49020
Evaporator pressure drop	kPa	30
Condenser water flow rate (30 °C)	l/h	58236
Condenser pressure drop	kPa	43
ENERGY INDEX		
EER	W/W	4,86
ESEER	W/W	7,05
ELECTRICAL DATA		
Power supply	-	400V 3~ 50Hz
Input current	A	88
Maximum current (FLA)	A	134
Starting current (LRA)	A	6
SOUND DATA		
Sound pressure	dB(A)	77
Sound power	dB(A)	49
HYDRAULIC CONNECTION		
Evaporator hydraulic connection (Vitacluc)	Ø	3"
Condenser hydraulic connection (Vitacluc)	Ø	3"

Cooling

- leaving water temperature 7°C;
- condenser entering water temperature 30 °C;
- $\Delta t = 5$ °C;

Sound power:

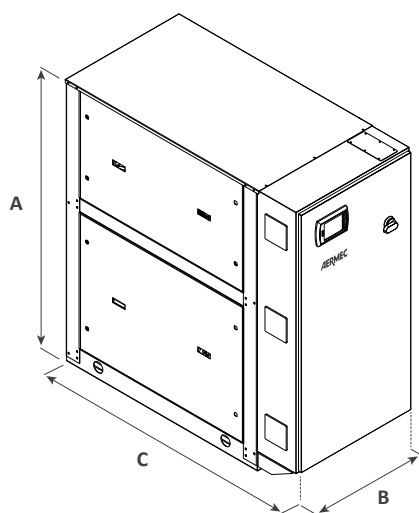
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure:

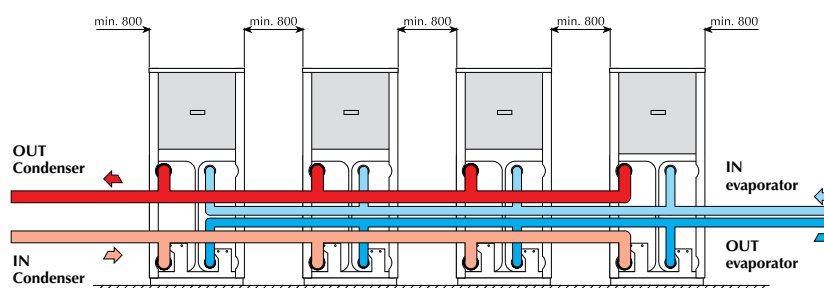
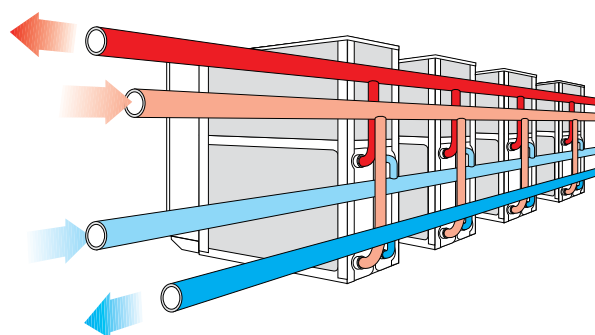
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Data declared in accordance with UNI EN 14511:2011

Dimensions (mm)



Model	TW 110	
Height	[mm] (A)	1727
Width	[mm] (B)	805
Depth	[mm] (C)	1653
Weight	kg	960



WF

**Chillers,
Water/Water outdoor installation
with twin-rotor screw compressor
Cooling capacity 630÷1549kW
Heating capacity 676÷1668kW**

R134a



Aermec participate in the EUROVENT program: LCP up to 1500 kW. the products are present on the site www.eurovent-certification.com
* Not certified model



- **OPTIMISED FOR LOW CONDENSER TEMPERATURES**
for example: units working in cooling mode with ground or tower water, or units working in heat pump mode with low leaving water temperature
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 50 °C**
- **STANDARD ELECTRONIC EXPANSION VALVE**

Characteristics

Version

- **WF_°** Standard chillers
- **WF_A** High efficiency version
- **Operational limits (1)**
- **condenser leaving water temperature up to 50 °C**
- evaporator leaving liquid temperature down to -6 °C
- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 50 °C (with hydraulic system reversing) and with ground

water or geothermal loops. **For heating mode operation the IS accessory, condenser isolating valves, is required**

Options available:

- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating

valve / variable speed pump

- Electrical panel with all cables numbered
- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only

- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **AKW: ACUSTIC KIT. (only for Versions L)** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

Compatibility of accessories

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412
AER485P1		✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
AERWEB300		✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER		✓	✓	✓	✓	✓	✓	✓	✓
PRV3		✓	✓	✓	✓	✓	✓	✓	✓
Compatibility AVX									
standard / 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
Accessories factory fitted only									
RIF		RIFWF2512	RIFWF2812	RIFWF3212	RIFWF3612	RIFWF4212	RIFWF4812	RIFWF5612	RIFWF6412
AKW	(1)	✓	✓	✓	✓	✓	✓	✓	✓
IS1	(2)	°/A	°/A	°	°	°	°	°	°
IS2	(2)			A	A	A	A	°	°
IS3	(2)							A	A

(1) The accessory is only available for the low noise version "L"

(2) For heating mode operation the IS accessory, condenser isolating valves, is required

Attention: For D - T - E version - please contact us

Unit Configurator

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

Field	Code
1,2	WF
3,4,5,6	Size
	2512-2812-3212-3612-4212-4812-5612-6412
7	Model
	° Optimised for low condensing temperature
8	Version
	° Standard
A	High efficiency
9	Equipment
	° Standard
L	low noise
10	Heat recovery
	° Without recovery
D	With Desuperheater
T	With total recovery ⁽³⁾
11	Evaporator
	° Standard
E	Evaporating unit
12	Power supply
	° 400V/3/50Hz with fuses
8	400V/3/50Hz with circuit breakers
5	500V/3/50Hz with fuses ⁽⁴⁾
9	500V/3/50Hz with circuit breakers ⁽⁴⁾

(3) options T are not compatible with option "E"

(4) 500V/3/50Hz available only size 2512-2812

Technical Data

Model WF standard			2512°	2812°	3212°	3612°	4212°	4812°	5612°	*6412°
Cooling capacity	(1)	kW	630	720	872	984	1111	1276	1406	1546
Total input power	(1)	kW	125,06	143,21	174,00	194,84	219,28	253,97	280,17	309,99
E.E.R.	(1)	W/W	5,04	5,03	5,01	5,05	5,06	5,02	5,02	4,99
Energy efficiency classification			B	B	B	A	A	B	B	B
E.S.E.E.R.	-		6,16	6,19	6,16	6,18	6,19	6,2	6,18	6,16
Water flow rate evaporator		l/h	108704	124356	150500	169764	191608	220332	242864	267116
Total pressure drops system side		kPa	41	58	56	47	43	62	65	75
Water flow rate condenser		l/h	128639	147069	178115	200810	226576	260529	287309	316136
Total pressure drops geothermal side		kPa	16	16	18	16	18	24	17	19
Heating capacity		kW	678	775	940	1060	1195	1374	1515	1668
Total input power		kW	158,11	180,80	219,28	246,23	277,48	319,33	353,36	390,48
COP		W/W	4,29	4,29	4,29	4,31	4,31	4,30	4,29	4,27
Energy efficiency classification			B	B	B	B	B	B	B	B
Water flow rate condenser		l/h	116616	133300	161508	182148	205368	235984	260408	286724
Total pressure drops system side		kPa	13	13	14	13	14	19	14	15
Water flow rate evaporator		l/h	91126	104215	126214	142442	160596	184676	203545	223978
Total pressure drops geothermal side		kPa	28	39	38	32	29	43	44	51

Model WF_A high efficiency			2512A	2812A	3212A	3612A	4212A	4812A	5612A	*6412A
Cooling capacity	(1)	kW	639	725	887	1004	1132	1278	1413	1549
Total input power	(1)	kW	120,53	137,92	168,89	188,58	213,76	239,85	269,78	298,99
E.E.R.	(1)	W/W	5,30	5,26	5,25	5,32	5,30	5,33	5,24	5,18
Energy efficiency classification			A	A	A	A	A	A	A	A
E.S.E.E.R.	-		6,63	6,61	6,63	6,66	6,67	6,66	6,54	6,49
Water flow rate evaporator		l/h	110252	125216	153252	173204	195564	220504	243724	267288
Total pressure drops system side		kPa	44	59	62	44	62	42	41	51
Water flow rate condenser		l/h	129043	146621	179396	202616	228734	257923	285881	313857
Total pressure drops geothermal side		kPa	63	64	72	69	69	74	74	77
Heating capacity		kW	676	772	944	1066	1199	1358	1506	1654
Total input power		kW	150,92	171,87	210,18	237,08	260	300,67	338,30	373,85
COP		W/W	4,50	4,49	4,49	4,50	4,50	4,52	4,45	4,43
Energy efficiency classification			A	A	A	A	A	A	A	B
Water flow rate condenser		l/h	116272	132268	161680	182664	206228	232716	258172	283456
Total pressure drops system side		kPa	51	51	58	56	55	59	59	62
Water flow rate evaporator		l/h	92252	104980	128346	144919	161508	184840	204250	223978
Total pressure drops geothermal side		kPa	30	40	42	30	42	29	28	35

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C
(1) EUROVENT for reversible units side water certifies the sun made cold (12-7 °C - 30-35 °C)

Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

* Not certified model EUROVENT

Modello WF_°E Evaporating unit			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
E.E.R.		W/W	3,83	3,85	3,84	3,81	3,86	3,86	3,86	3,85
Water flow rate evaporator		l/h	94084	107328	128656	144824	164088	185244	207776	228416
Total pressure drops system side		kPa	31	43	41	34	31	44	47	55

Model WF_AE Evaporating unit			2512°A	2812°A	3212°A	3612°A	4212°A	4812°A	5612°A	6412°A
Cooling capacity		kW	585	665	800	899	1016	1148	1246	1382
Total input power		kW	143	162	195	221	248	280	313	346
E.E.R.		W/W	4,09	4,1	4,1	4,07	4,1	4,1	3,98	3,99
Water flow rate evaporator		l/h	100620	114380	137600	154628	174752	197456	214312	237704
Total pressure drops system side		kPa	36	49	50	35	49	34	31	40

Cooling

Evaporator water temperature (in/out) 12°C/7°C; Condensing temperature 45°C

Technical Data

GENERAL DATA			2512	2812	3212	3612	4212	4812	5612	6412
Electrical data										
Total input current cooling mode	°	A	212	243	282	317	349	416	457	506
	A	A	202	232	268	303	332	392	437	483
Total input current heating mode	°	A	271	312	361	406	447	533	585	648
	A	A	258	297	343	388	425	501	559	619
Maximum current (FLA)		A	294	336	396	446	494	572	636	702
Starting current (LRA)		A	447	528	596	659	712	872	968	1156
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2
	(1)	%A	%	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
Capacity control	(1)	E		35-100	35-100	35-100	35-100	35-100	35-100	35-100
		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Evaporator		type	Shell and tube							
		n°	1	1	1	1	1	1	1	1
Hydraulic connections (Victaulic in/out)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"
	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Geothermal side exchanger										
Condenser		type	Shell and tube							
		n°	2	2	2	2	2	2	2	2
Hydraulic connections (Victaulic in/out)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"
	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"
Sound data										
Sound pressure		dB(A)	61,6	62	61,5	61,7	62,6	63,5	65,3	65,9
Sound power		dB(A)	93,6	94	93,5	93,7	94,6	95,5	97,3	97,9
Power supply		V/ph/Hz	400V/3/50Hz							

(1) Electronic expansion valve

Sound power

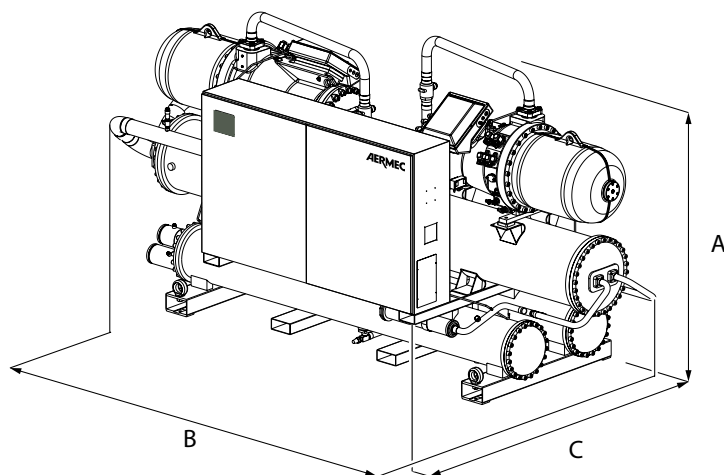
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Dimensions (mm)



Mod WF			2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
Height	mm	(A)	2100	2100	2050	2120	2140	2140	2210	2210
width	mm	(B)	3690	3690	4030	4030	4370	4370	4610	4760
depth	mm	(C)	1470	1470	1470	1520	1550	1550	1600	1600
Weight	Kg		3570	3650	4470	4750	5050	5180	6030	6260

Mod WF			2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Height	mm	(A)	2180	2180	2190	2340	2340	2340	2380	2380
width	mm	(B)	4330	4330	4330	4370	4550	4550	4800	4800
depth	mm	(C)	1470	1470	1537	1695	1695	1695	1700	1700
Weight	Kg		4080	4140	5470	5950	6240	6440	7230	7360

Attention: For D - T - E version - please contact us

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

HWF

R134a



Aermec participate in the EUROVENT program: LCP up to 1500 kW the products are present on the site www.eurovent-certification.com
* Not certified model

Chillers,
Water/Water outdoor installation
with twin-rotor screw compressor
Cooling capacity 628÷1524kW
Heating capacity 671÷1615kW



- **OPTIMISED FOR HIGH CONDENSER TEMPERATURES**
for example: units operating in heating mode
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 60 °C**
- **STANDARD ELECTRONIC EXPANSION VALVE WHICH ALLOWS**

Characteristics

Version

- **HWF_°** Standard chillers
- **HWF_A** High efficiency version
- **Operational limits (1)**
- **condenser leaving water temperature up to 60 °C**
- evaporator leaving liquid temperature down to -6 °C
- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 60 °C (with hydraulic system reversing) and with dry-

cooler. **For heating mode operation the IS accessory, condenser isolating valves, is required**

- **Options available:**
- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating

- valve / variable speed pump
- Electrical panel with all cables numbered
- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website www.aermec.com

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **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;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

Accessories factory fitted only

- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **AKW: ACUSTIC KIT. (only for Versions L)** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412
AER485P1		✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)	✓(x2)
AERWEB300		✓	✓	✓	✓	✓	✓	✓	✓
MULTICHILLER		✓	✓	✓	✓	✓	✓	✓	✓
PRV3		✓	✓	✓	✓	✓	✓	✓	✓
Compatibilità AVX									
standard / 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
Accessories factory fitted only									
RIF		RIFHWF2512	RIFHWF2812	RIFHWF3212	RIFHWF3612	RIFHWF4212	RIFHWF4812	RIFHWF5602	RIFHWF6412
AKW	(1)	✓	✓	✓	✓	✓	✓	✓	✓
IS1	(2)	°/A	°/A	°	°	°	°	°	°
IS2	(2)			A	A	A	A	°	°
IS3	(2)							A	A

(1) The accessory is only available for the low noise version "L"

(2) For heating mode operation the IS accessory, condenser isolating valves, is required

Attention: For D - T - E version - please contact us

Unit Configurator

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

Field	Code
1,2,3	HWF
4,5,6,7	Taglia
	2512-2812-3212-3612-4212-4812-5612-6412
8	Size
	° Optimised for high condensing temperature
9	Version
	° Standard
A	High efficiency
10	Equipment
	° Standard
L	low noise
11	Heat recovery
	° Without recovery
D	With Desuperheater
T	With total recovery ⁽³⁾
12	Evaporator
	° Standard
E	Evaporating unit
13	Power supply
	° 400V/3/50Hz with fuses
8	400V/3/50Hz with circuit breakers
5	500V/3/50Hz with fuses ⁽⁴⁾
9	500V/3/50Hz with circuit breakers ⁽⁴⁾

(3) options T are not compatible with option "E"

(4) 500V/3/50Hz available only size 2512-2812

Technical Data

Modello HWF standard			2512°	2812°	3212°	3612°	4212°	4812°	5612°	*6412°
Cooling capacity	(1)	kW	628	713	843	946	1092	1256	1415	1512
Total input power	(1)	kW	130,1	148,1	173,6	195,4	225,0	259,6	294,3	314,4
E.E.R.	(1)	W/W	4,83	4,81	4,85	4,84	4,85	4,84	4,81	4,81
Energy efficiency classification			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
Water flow rate evaporator		l/h	108360	123152	145512	163228	188340	216892	244412	261268
Total pressure drops system side		kPa	41	56	53	44	41	60	65	72
Water flow rate condenser		l/h	129112	146682	173127	194437	224288	258069	291144	311105
Total pressure drops geothermal side		kPa	16	16	17	15	17	23	18	18
Heating capacity		kW	671	763	899	1010	1164	1339	1513	1616
Total input power		kW	151,10	172	202,02	227,94	262,36	302,02	343,45	366,08
COP		W/W	4,50	4,42	4,45	4,43	4,44	4,44	4,41	4,49
Energy efficiency classification			A	B	A	B	B	B	B	B
Water flow rate condenser		l/h	115240	131064	154456	173548	200036	230128	260064	277780
Total pressure drops system side		kPa	13	12	13	12	14	18	14	14
Water flow rate evaporator		l/h	90893	103286	121939	136783	157715	181606	204835	218956
Total pressure drops geothermal side		kPa	28	39	36	30	28	41	45	49

Modello HWF_A high efficiency			2512A	2812A	3212A	3612A	4212A	4812A	5612A	*6412A
Cooling capacity	(1)	kW	643	730	855	966	1108	1249	1435	1524
Total input power	(1)	kW	128,7	147,1	172,1	193,0	222,3	249,4	287,4	306,7
E.E.R.	(1)	W/W	5,00	4,96	4,96	5,01	4,98	5,01	4,99	4,97
Energy efficiency classification			B	B	B	B	B	B	B	B
E.S.E.E.R.	-		6,19	6,18	6,17	6,18	6,19	6,19	6,17	6,16
Water flow rate evaporator		l/h	110940	126076	147576	166668	191264	215516	247508	262988
Total pressure drops system side		kPa	44	60	57	41	59	40	42	50
Water flow rate condenser		l/h	131038	148952	174374	196897	225905	254569	292443	310864
Total pressure drops geothermal side		kPa	65	66	68	66	67	72	77	76
Heating capacity		kW	680	774	902	1022	1172	1321	1519	1615
Total input power		kW	148,93	169,89	193	223,46	256,93	289,20	333,54	355,32
COP		W/W	4,68	4,67	4,56	4,58	4,56	4,57	4,66	4,55
Energy efficiency classification			A	A	A	A	A	A	A	A
Water flow rate condenser		l/h	116616	132612	155144	175268	200896	226526	260236	276748
Total pressure drops system side		kPa	51	52	53	51	52	56	60	59
Water flow rate evaporator		l/h	92923	105651	121948	139647	160046	180445	207131	220212
Total pressure drops geothermal side		kPa	30	41	39	28	40	28	29	34

Cooling (14511:2011)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C
(1) EUROVENT for reversible units side water certifies the sun made cold (12-7 °C - 30-35 °C)

Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

* Not certified model EUROVENT

Modello HWF_°E Evaporating unit			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
E.E.R.		W/W	3,83	3,82	3,84	3,85	3,85	3,85	3,85	3,86
Water flow rate evaporator		l/h	92883	105773	124872	140352	162884	184040	210700	225492
Total pressure drops system side		kPa	30	42	39	32	31	44	49	54

Modello HWF_AE Evaporating unit			2512°A	2812°A	3212°A	3612°A	4212°A	4812°A	5612°A	6412°A
Cooling capacity		kW	577	657	779	873	1012	1143	1263	1362
Total input power		kW	143	162	191	214	248	280	320	342
E.E.R.		W/W	4,03	4,06	4,08	4,08	4,08	4,08	3,95	3,98
Water flow rate evaporator		l/h	99244	113004	133988	150156	174064	196596	217236	234264
Total pressure drops system side		kPa	35	48	47	33	49	34	32	39

Cooling

Evaporator water temperature (in/out) 12°C/7°C; Condensing temperature 45°C

Technical Data

GENERAL DATA			2512	2812	3212	3612	4212	4812	5612	6412
Electrical data										
Total input current cooling mode	°	A	226	255	286	314	378	426	488	530
	A	A	221	249	278	306	367	408	471	514
Total input current heating mode	°	A	267	300	337	371	446	503	575	625
	A	A	261	293	328	361	433	481	556	606
Total input current cooling mode	°E	A	247	278	315	345	416	465	532	579
	AE	A	249	281	318	348	418	467	534	581
Maximum current (FLA)		A	370	418	468	516	612	690	776	846
Starting current (LRA)		A	545	613	670	723	892	995	1193	1340
Compressors										
Compressors		type	two screw	two screw	two screw	two screw	two screw	two screw	two screw	two screw
		n°	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2
Capacity control	(1)	°/A	%	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100	12,5-100
	(1)	E		35-100	35-100	35-100	35-100	35-100	35-100	35-100
Refrigerant		type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
System side exchanger										
Evaporator		type	Shell and tube							
		n°	1	1	1	1	1	1	1	1
Hydraulic connections (Victaulic in/out)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"
	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Geothermal side exchanger										
Condenser		type	Shell and tube							
		n°	2	2	2	2	2	2	2	2
Hydraulic connections (Victaulic in/out)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"
	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"
Sound data										
Sound pressure		dB(A)	93,6	94,0	93,5	93,7	94,6	95,5	97,3	97,9
Sound power		dB(A)	61,6	62,0	61,5	61,7	62,6	63,5	65,3	65,9
Power supply		V/ph/Hz	400V/3/50Hz							

(1) Electronic expansion valve

Sound power

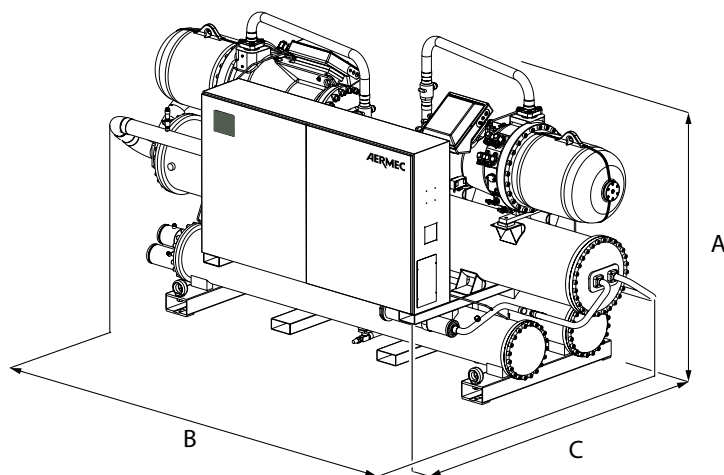
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Dimensions (mm)



Mod HWF			2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
Height	mm	(A)	2100	2100	2050	2120	2140	2140	2210	2210
width	mm	(B)	1470	1470	1470	1520	1550	1550	1600	1600
depth	mm	(C)	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	mm	(A)	2180	2180	2190	2340	2340	2340	2380	2380
width	mm	(B)	1470	1470	1537	1695	1695	1695	1700	1700
depth	mm	(C)	4330	4330	4330	4370	4550	4550	4800	4800
Weight	Kg		4080	4140	5470	5950	6290	6460	7310	7410

Attention: For D - T - E version - please contact us

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

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 aerodynamic 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)

NCD Air handling units



AERMEC participates in the EUROVENT programme for: MB/MB/MECH.
Check ongoing validity of certificate online: www.eurovent-certification.com



Features

- 24 sizes of central air handling units with double panelling with panel thickness of 50 mm
- Support structure realised in aluminium alloy sections and a large choice of panels.
- Wide range of sections and components to satisfy all plant engineering requirements
- Double intake centrifugal fans with forward or reverse blades.
- PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

Main Features

Structure:

- In aluminium sections with rounded edges both internally and externally allowing greater cleanliness
- New panelling and gaskets, able to guarantee reduced seepage in compliance with the

- EN1886 Standard
- Reduction of noise emission thanks to the use of material with high sound-absorption power.
- Small dimensions and contained height.

Internal components:

- New high-efficiency heat exchangers with small pressure drops
- Mixing chamber with three dampers
The configurations for the mixing chambers with three dampers are the following:
 - two upper dampers and an internal one for recirculation;
 - two front dampers and a horizontal one for recirculation (for overlapping control units);
 - two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake)

Large availability of filters:

- Filters with large surfaces to reduce the pressure drops and increase the duration
- Cell pre-filters
- Roll filters
- Bag filters
- Absolute filters
- Activated carbon filters
- Germicidal lamp

- New efficient drop eliminator in PVC
- New heat recoverers with high heat exchange

Electric components

- Electronic regulation available able to optimise the performance and simplify installation of the control unit itself
- New high performance selection software.

Accessories

Wide range of accessories among which:

- Technical rooms

Accessories for air intake/exhaust sections:

- flange;
- blank panel (to be perforated with care by the customer);
- anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
- aluminium grille (for internal dampers only);
- manual command on the dampers;
- proportional servo-control;

- proportional servo-control with spring return;
- pedestrian grill on the floor dampers.

Accessories for the fan-motor sections:

- Damper on the flow vent;
- overpressure damper;
- micro switch on the inspection hatch;

Accessories common to several sections:

- Spot light with window with 24V bulb (the installer must envision the 24V power supply);

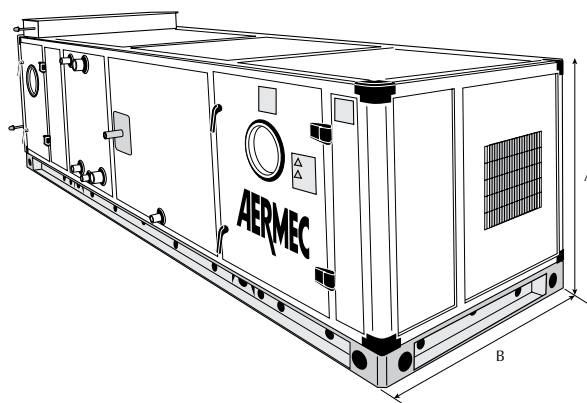
- manometer with dial;
- pressure switch;
- instruments-probes holder GJ 1/4" double sleeve;
- floor reinforced with non-slip sheet steel.

Technical data

	Air flow rate 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

NCD H

Air handling units
With modular sections



Features

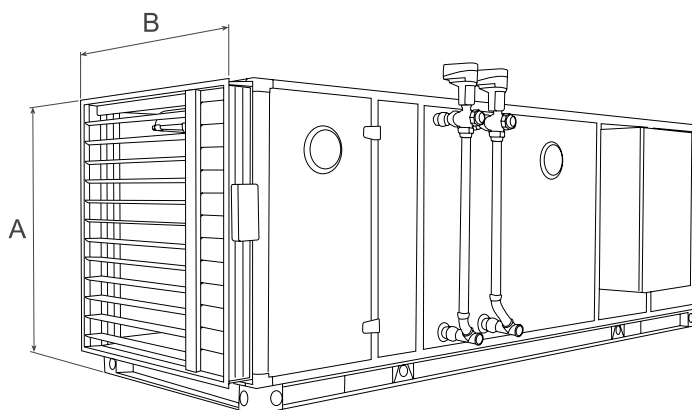
- **Fan sections, exchange coils, filters and external air intakes:**
 - plug fans for all sizes, in stainless steel or treated material, equipped with guides and supports reduced to a minimum;
 - coils and heat recovery units in Cu/Cu, waterproof Cu/Cu, stainless steel/Cu or stainless steel/stainless 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
NCD H 2	1800	0,202
NCD H 3	2520	0,278
NCD H 4	3130	0,348
NCD H 5	3820	0,425
NCD H 6	4500	0,502
NCD H 7	5080	0,566
NCD H 8	6230	0,69
NCD H 9	7340	0,815
NCD H 10	9470	1,053
NCD H 11	10730	1,191
NCD H 12	13860	1,539
NCD H 13	17500	1,944
NCD H 14	21300	2,369
NCD H 15	25780	2,862
NCD 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
NCD H 2	805	735
NCD H 3	805	895
NCD H 4	805	1055
NCD H 5	805	1215
NCD H 6	805	1375
NCD H 7	1125	1055
NCD H 8	1125	1215
NCD H 9	1125	1375
NCD H 10	1125	1695
NCD H 11	1445	1375
NCD H 12	1445	1695
NCD H 13	1765	1695
NCD H 14	1765	2015
NCD H 15	2085	2015
NCD H 16	2085	2335

SPL

025/130

Swimming Pool Lines
Air handling unit
high efficiency for health centres,
Air flow from 4,000 to 13,000 m³/h.

R410A



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.

The structure and all the internal components are built to ensure the maximum resistance to corrosion.

Characteristics

VERSIONS

- 7 sizes available.

STRUCTURE:

- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m³, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

THERMAL RECOVERY SECTION:

- High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

REFRIGERANT CIRCUIT:

- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

FAN SECTIONS:

- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

FILTRATION SYSTEMS:

- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

HOT WATER HEATING COIL:

- With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way

valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

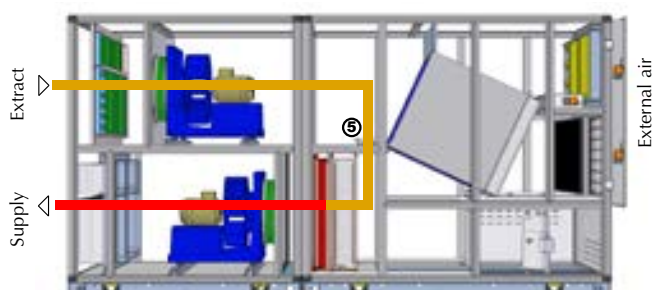
ELECTRICAL PANEL:

- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP44 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

The principal operation modes of the unit are shown in the example schematics below.

In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

"Start up" cycle



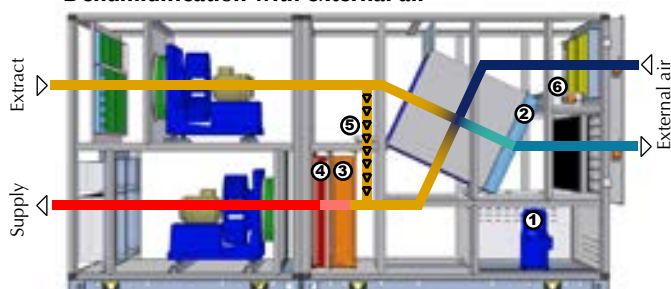
The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.

The hot water coil is operational.

The "start up cycle" is activated for the time necessary to heat up the area.

"Dehumidification" cycle

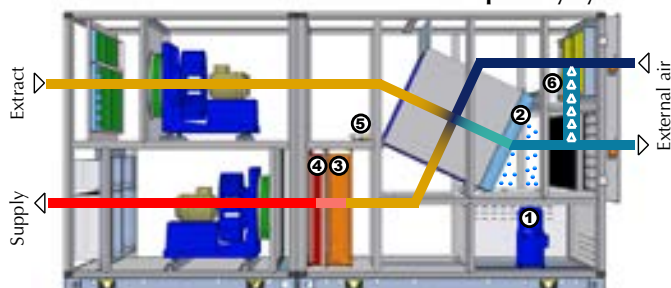
Dehumidification with external air



The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.

The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

Dehumidification with external air and primary cycle

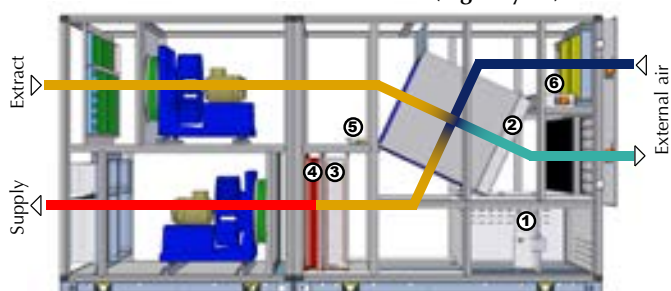


When required the compressor also assists in the dehumidification of the pool area.

The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.

As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



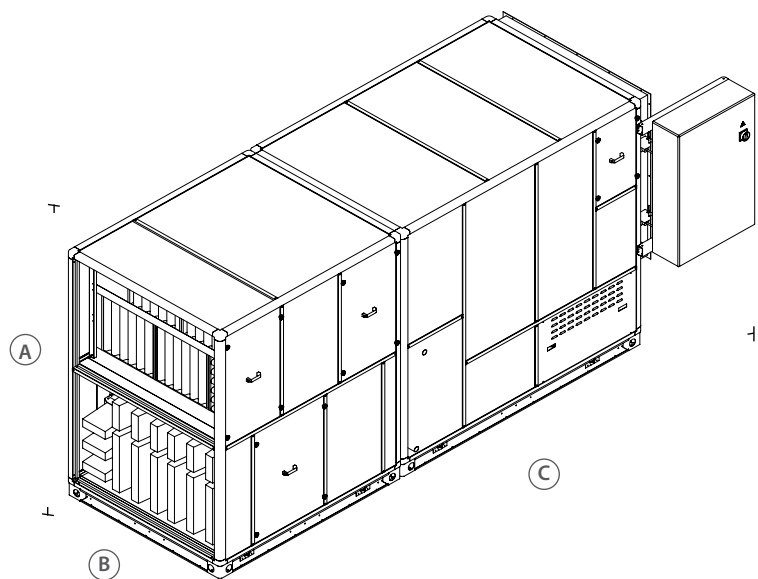
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Technical data

SPL		025	040	060	100	130
Nominal airflow (supply/extract)	m ³ /h	2.500	4.000	6.300	10.000	13.000
Available pressure (supply/extract)	Pa	400	400	400	400	400
Heat recovery capacity recovered ¹	kW	7,9	12,6	20,4	32,0	41,5
Max heat recovery efficiency ¹	%	80,8	79,3	80,1	79,5	79,4
Refrigerant circuit recovered capacity ¹	kW	7,5	10,5	21,3	31,7	45,7
Total recovered capacity ¹	kW	15,4	23,1	41,6	63,7	87,3
Compressor power input ¹	kW	1,3	1,6	3,7	6,0	8,4
COP ¹	-	11,8	14,4	11,2	10,6	10,4
COP ²	-	3,9	4,0	4,1	4,0	4,1
Total dehumidification capacity ¹	kg/h	15,5	25,2	40,1	63,7	82,7
Supply fan power input	kW	1,6	2,6	3,7	5,9	7,6
Extract fan power input	kW	1,2	1,9	2,7	4,5	5,7
Type / number of compressors	n°	Scroll / 1				
Hot water heating coil (standard)						
Capacity (without recovery active) ¹	kW	26,1	35,4	61,6	95,3	124,5
Water flow rate ³	l/h	2.250	3.050	5.300	8.200	10.700
Water pressure drop ³	kPa	23,5	43,7	33,1	48,8	46,3
Plate heat exchanger R410A/non aggressive water (standard)						
Water flow rate nominal ⁴	l/h	950	1.120	2.500	3.600	5.400
Pressure drop ⁴	kPa	19	19	31	32	33
Plate heat exchanger accessible non aggressive water/pool water (standard)						
Water flow rate nominal pool ⁵	l/h	1.200	1.400	3.100	4.500	6.800
Pressure drop pool side ⁵	kPa	32,4	34	31,4	33	34,5
Pressure drop intermediate circuit side ⁵	kPa	21,2	22,3	20,6	21,6	22,5
Electrical data						
Unit power supply		400 V - 3 ph - 50 Hz				
Maximum total current input supply fan	A	3,5	6,2	11	14,6	15
Maximum total current input extract fan	A	2,6	4,9	6,4	11,3	11,3
Unit maximum current input	A	11,6	17,1	32,4	49,3	61,3
Unit starting current	A	32,1	46,1	91,4	181,9	184,3

- 1 External air 0°C,80% RH; internal air 29°C,60% RH.
 2 Values as per conditions of D.M. 7 april 2008 for heating only operation.
 3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.
 4 Water temperature inlet/outlet non aggressive 27/37°C.
 5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C
 Preliminary technical data, subject to modification.

Dimensional data (mm)



SPL			025	040	060	100	130
Height (including base H=120mm)	A	mm	1.765	1.765	2.245	2.405	2.405
Width	B	mm	895	895	1.055	1.375	1.695
Length	C	mm	3.230	3.390	4.190	4.190	4.670
Weight		kg	900	1.000	1.350	2.060	2.600

SPL 160/250

Swimming Pool Lines
Air handling unit
high efficiency for health centres.
Air flow from 16,000 to 25,000 m³/h.

R410A



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in medium-large spaces such as health centres, spa areas, fitness centres, swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.

The structure and all the internal components are built to ensure the **maximum resistance to corrosion**.

Characteristics

VERSIONS

- 3 sizes available.

STRUCTURE:

- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m³, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

THERMAL RECOVERY SECTION:

- High efficiency static cross flow double plate heat exchanger in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

REFRIGERANT CIRCUIT:

- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

FAN SECTIONS:

- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

FILTRATION SYSTEMS:

- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

HOT WATER HEATING COIL:

- Water coil with copper tubes and pre-painted aluminium fins and painted frame to heat the

supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

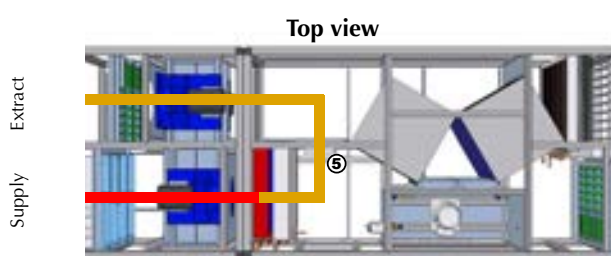
ELECTRICAL PANEL:

- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP44 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

The principal operation modes of the unit are shown in the example schematics below.

In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

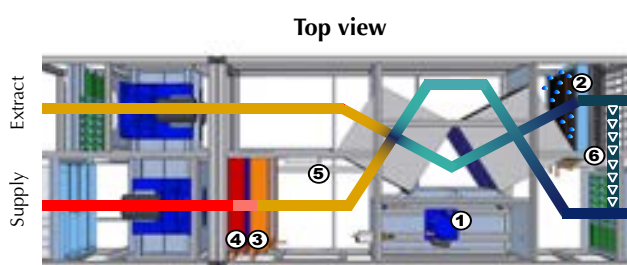
"Start up" cycle



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area

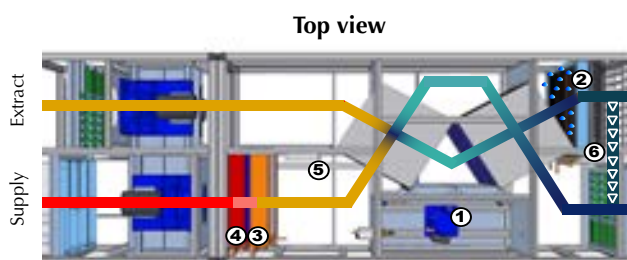
"Dehumidification" cycle

Dehumidification with external air



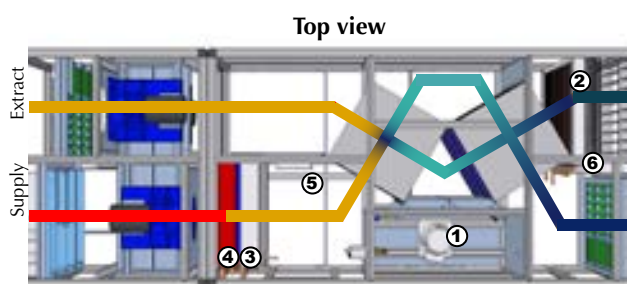
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

Dehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Technical data

SPL		160	200	250
Nominal airflow (supply/extract)	m³/h	16.000	20.000	25.000
Available pressure (supply/extract)	Pa	400	400	400
Heat recovery capacity recovered ¹	kW	59,6	68,6	89,2
Max heat recovery efficiency ¹	%	93	86	89
Refrigerant circuit recovered capacity ¹	kW	46,3	53,6	69,4
Total recovered capacity ¹	kW	105,9	122,2	158,6
Compressor power input ¹	kW	8,5	9,2	12,8
COP ¹	-	12,5	13,3	12,4
COP ²	-	4,0	3,9	3,9
Total dehumidification capacity ¹	kg/h	102,2	127,6	159,5
Supply fans power input	kW	10,9	13,7	17,7
Extract fans power input	kW	8,3	9,8	12,4
Type / number of compressors	n°	Scroll / 1		
Hot water heating coil (standard)				
Capacity (without recovery active) ¹	kW	131,9	182,7	205,9
Water flow rate ³	l/h	11.300	15.700	17.700
Water pressure drop ³	kPa	43,7	37,9	42,2
Plate heat exchanger R410A/non aggressive water (standard)				
Water flow rate nominal ⁴	l/h	5.760	6.450	8.260
Pressure drop ⁴	kPa	33	33	33
Plate heat exchanger accessible non aggressive water/pool water (standard)				
Water flow rate nominal pool ⁵	l/h	7.200	8.100	10.400
Pressure drop pool side ⁵	kPa	34,2	34,7	34,2
Pressure drop intermediate circuit side ⁵	kPa	22,3	22,7	22,2
Electrical data				
Unit power supply		400 V - 3 ph - 50 Hz		
Maximum total current input supply fans	A	29,2	41	42
Maximum total current input extract fans	A	22	22,6	30
Unit maximum current input	A	86,2	99,6	123
Unit starting current	A	209	223	287

1 External air 0°C, 80% RH; internal air 29°C, 60% RH.

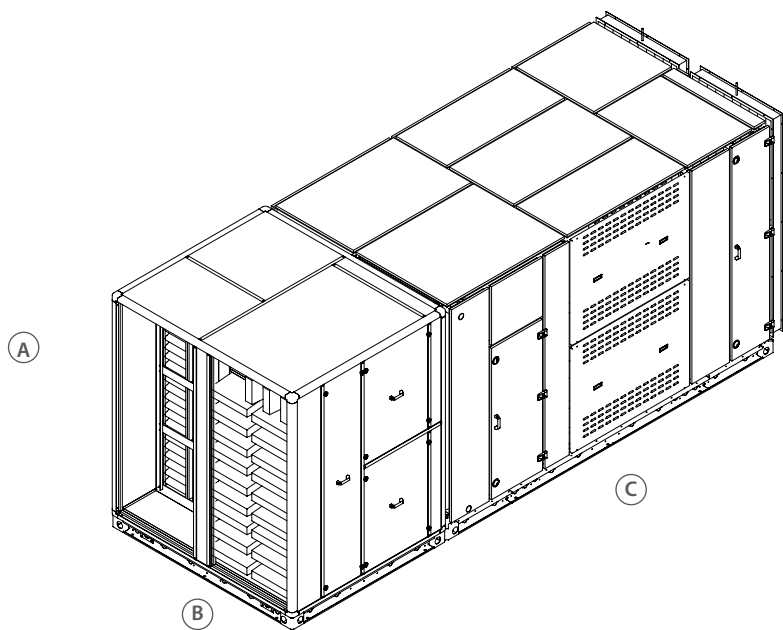
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.

3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.

4 Water temperature inlet/outlet non aggressive 27/37°C.

5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C
Preliminary technical data, subject to modification.

Dimensional data (mm)



SPL			160	200	250
Height	A	mm	2.085	2.405	2.405
Width	B	mm	2.015	2.175	2.335
Length	C	mm	5.790	5.790	6.430
Weight		kg	2.780	3.250	3.580

ENERGY

Air handling unit for outside air with high energy efficiency.
Airflow from 4,000 to 25,000 m³/h.

R410A



The units of the Energy series represent the maximum expression of technical innovation for the treatment of outside air. The Energy series has been specifically designed to reduce to the minimum the operating energy consumption, which represents around 80% of the entire life cycle cost of an air treatment unit. The double heat recovery system (static and active) and the innovative cooling and adiabatic humidification system, allow **the supply of air at the desired conditions with the minimum energy expenditure. The damper for total bypass allows free-cooling in the intermediate season, exploiting to the maximum the free external thermal contribution.** The Energy series is manufactured in full compliance with the standard EN1886 with regards to mechanical resistance, air leakage, thermal and acoustical insulation of the casing.

Characteristics

VERSIONS

- 5 sizes available.

PLUG AND PLAY:

- The units of the Energy series are delivered ready for use. In particular, the machine is equipped with a complete control system and the refrigerant circuit is completely assembled and tested, minimising the time and cost of installation and start up.

STRUCTURAL ASSEMBLY:

- In aluminium profile with rounded edges and reinforced nylon corner pieces. The casing is manufactured from sandwich panels of 50 mm thickness, fixed to the frame with an exclusive panel fixing without the use of screws. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.

MODULATING BYPASS DAMPER:

- In aluminium with opposed aerofoil blades, installed in the extract air flow to permit free-cooling. Additional recirculating damper (only in the Eco version). The accurate manufacturing minimises air leakage.

PLUG FANS:

- Very high efficiency directly coupled to the motor. Inverter for continuous control of supply and extract air flow.

FILTRATION SYSTEMS:

- Various types of filters are available (panel

and bag), to satisfy any filtration requirement and ensure compliance with the current air quality standards. Dirty filter pressure switches supplied as standard.

STATIC HEAT RECOVERY:

- Integrated reversible heat pump. Tandem scroll compressor (single for sizes 040 and 060) supplied with rubber anti-vibration feet; continuous capacity control through an inverter to ensure the maximum energy savings even at part load. Double expansion valve electronically controlled. 4 way refrigerant cycle reversing valve. Coils manufactured with copper tubes and prepainted aluminium fins. Environmentally friendly refrigerant R410A ensures improved energy efficiency for the refrigerant cycle.

RE-HEAT COIL:

- Water in the Standard version (optional) and Eco version (standard), hot gas in the Dry version (standard).

COOLING SYSTEM:

- Adiabatic with water spray in the extract air, with self cleaning spray nozzles and high pressure pump module, having the function of maximising the heat exchange in the double heat recovery system.

WATER HUMIDIFICATION SYSTEM:

- Spray in the supply air. Lower surfaces of the unit equipped with drain panels with central condensate drain to

ensure the continuous drainage of water and avoid stagnation.

ELECTRICAL PANEL:

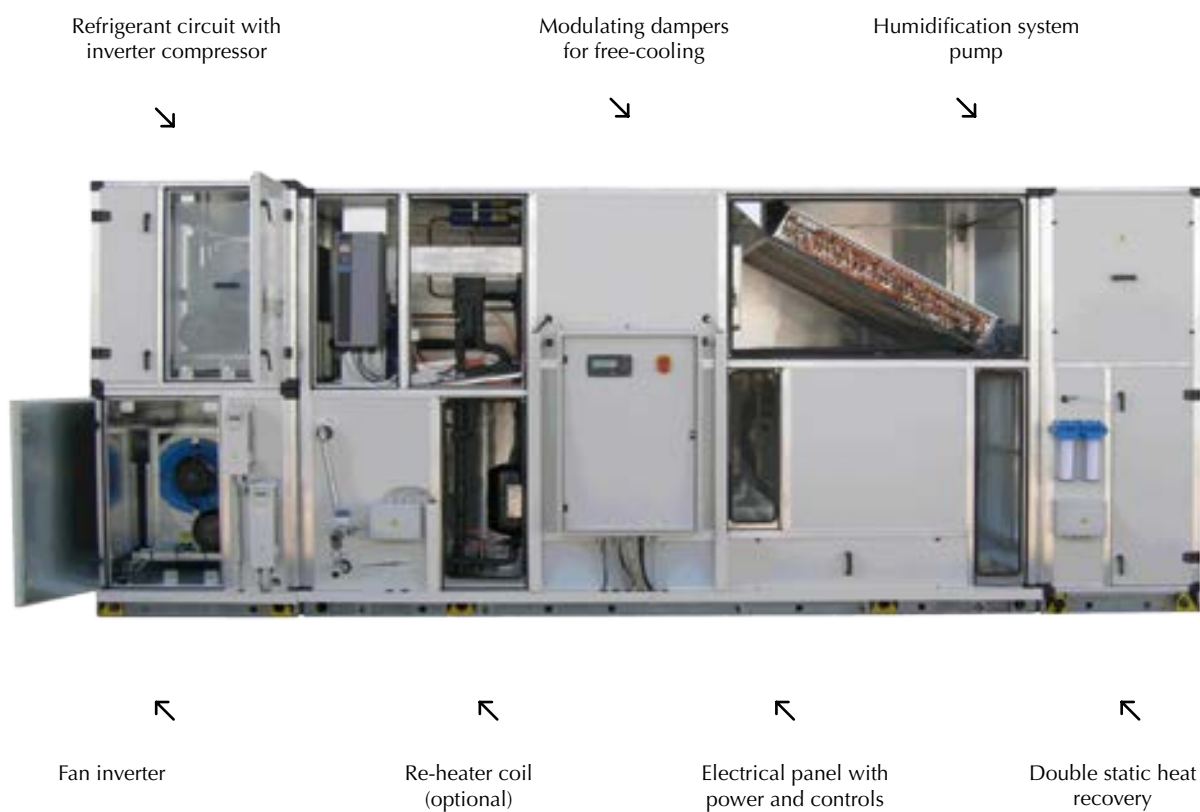
- Complete with power and controls unit mounted. Remote panel for the control of all the main functions and display of alarms.

MICROPROCESSOR CONTROLLER:

- Capable of controlling the various operating modes (control of outside air, control of total air), ensuring the maximum energy saving in each operating condition. RS485 interface supplied as standard (MODBUS protocol) for connection to a supervisory systems and remote control. Manual season change over (summer/winter).

ON DEMAND:

- Hot water re-heat coil (only Standard version, as standard on Eco version), enthalpy free-cooling (available only with ambient temperature control), bag filters.



VERSION	Adiabatic cooling / humidification	Recirculating damper	Hot gas re-heat	Water re-heat
ENERGY STD	●	-	-	Optional
ENERGY DRY	●	-	●	-
ENERGY ECO	●	●	-	●

Technical data

Energy		040	060	100	160	250
Air flow nominal	m³/h	4.000	6.000	10.000	16.000	25.000
Air flow minimum	m³/h	2.800	4.200	7.000	11.200	17.500
Max motor capacity standard fans	kW	2,2	3	5,5	7,5	15
Current input at max capacity	A	4	5,4	9,9	13,5	27,1
Available supply static pressure	Pa	300	300	300	300	300
Available extract static pressure	Pa	200	200	200	200	200
Max motor capacity oversized fans	kW	3	4	7,5	11	15
Available supply pressure	Pa	500	500	500	500	500
Available extract pressure	Pa	400	400	400	400	400
Recovered heat capacity ^{1, 3}	kW	16,2	23,4	38	63,3	100,8
Heat recovery output ^{1, 3}	%	75,4	72,3	71,3	74,0	75,4
Cooling capacity heat recovery circuit active ¹	kW	19,1	27,8	45,6	73,8	97,6
Compressor power input ¹	kW	7,3	9,4	15,3	22	25
Compressor current input ¹	A	13,8	13,2	24,12	32,5	37
E.E.R. total ¹		3,5	3,8	3,8	4,1	4,4
Recovered heat capacity ^{2, 3}	kW	12,5	21,9	35,6	59,2	94,2
Heat recovery output ^{2, 3}	%	76,6	74	72,1	74,8	76,2
Heating capacity heat recovery circuit active ²	kW	24,2	32,1	56,8	84,6	109,8
Compressor power input ²	kW	7,4	8,0	17,8	19,1	22,6
Compressor current input ²	A	15,9	11,3	29,1	29,2	34,7
C.O.P. total ²		3,9	4,5	3,9	4,7	4,8
Type compressors/ number		Scroll / 1		Scroll / 2		
Power supply		400V / 3Ph+N / 50Hz				
Pump capacity adiabatic cooling circuit	kW	0,46	0,46	0,46	0,69	0,69
Humidification capacity	g/kg	5	5	5	5	5
Water flow rate	kg/h	24	36	60	96	150
Heating capacity water coil ⁴	kW	25,4	33,9	60,7	102,0	133,6
Water flow rate	m³/h	1,09	1,50	2,60	4,38	5,87
Pressure drop water side	kPa	8	6	9	8	7
Pressure drop air side	Pa	28	41	33	52	80

1 External air 35°C, 40% RH; extract air 27°C, 47,5% RH, adiabatic cooling active.

2 External air 7°C, 87% RH; extract air 20°C, 60% RH, adiabatic humidification active.

3 Constant performance over time.

4 Water inlet 70°C, water outlet 50°C.

Preliminary technical data, subject to modification.

Dimensional data (mm)



		040	060	100	160	250
Height	mm	1.810	1.810	2.130	2.450	2.450
Width	mm	1.055	1.375	1.695	2.015	2.335
Length	mm	4.830	4.830	5.630	6.270	6.270
Weight Standard version	kg	1.400	1.800	2.300	2.900	3.500

RTX

09/16

**Roof-top
Air/Air for external installation
with plug fans and scroll compressors**
Cooling capacities 51÷132kW
Heating capacities 50÷134kW

R410A



- **HANDLING SECTION WITH PLUG FAN COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING/ENTHALPIC FREE-COOLING OPTION**
- **FOR MEDIUM CROWDING APPLICATIONS**

Features

- Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration. RTX units are designed for medium crowding applications, like shopping malls, shops, offices, production areas being designed for operation with 30% external and expelled air (version MB3). The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exhaust air allowing higher performances and efficiencies.

Versions

RTX_F cooling only version
RTX_H heat pump version

Configurations

- MB2** with mixing chambers and two dampers
 - MB3** with mixing chamber with three dampers return fan and heat recovery from expelled air
 - MB1** recirculation only
- Each of the different configuration can be further customized with a wide choice of accessories.
- 1 cooling circuit
 - High efficiency scroll compressors (tandem UNEVEN) and low power consumption
 - Internal and external direct expansion finned heat exchangers
 - Supply and return fans (if present), of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through the internal com-

ponents, with the minimum noise.

- Group of axial fans for extremely silent operation placed on the condensing section with standard condensation electronic control.
- G4 air filter on the flow of outside air and on the recovery, are installed upstream of the components, to ensure low pressure drops.
- Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions. Interfaces for connections to BMS and optional remote control available.

Accessories and fittings

- **SSV:** Supervision system.
- **RS:** Serial card BMS RS485
- **LW:** Interface card LonWorks
- **BIP:** Interface card Ethernet-pCOWeb (BACNET IP)
- **BAC:** Interface card BACnet MS/TP pConet
- **FCT:** Temperature Free-cooling
- **FTH:** Enthalpic Free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
- **FT7:** Pocket filters F7 efficiency placed on the flow of supply air
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air.
- **H10:** Electronic filters placed on the flow of supply air.
- **PSF:** Differential pressure switch signaling fouled filters of recovery, renewal and discharge (if present)
- **PSF2:** Differential pressure switch signaling fouled filters, renewal and supply.
- **Gx:** heating module with gas burner
- **BW:** 2-rows-heating coil with hot water
- **BWV2V:** 2-rows-heating coil with hot water, with 2-way modulating valve
- **BWV3V:** 2-rows heating coil with hot water, with

- 3-way modulating valve
- **BE:** Electric heating coil 2 stages (**not available with hot air generator**)
- **BEM:** Modulating electric heating coil (**not available with hot air generator**)
- **BPGC:** After heating coil with hot gas
- **DCPR:** AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
- **AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation
- **MAN:** High and low pressure gauges
- **U:** Installed steam ramp
- **UP:** Immersed electrode producer standard supplied and installed steam ramp
- **CUR:** Humidification control (humidity probe in recovery, limit humidity probe in supply, contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2:** Probe CO₂ (**not available on MB1 FITTINGS**)
- **SVOC:** Probe VOC (**not available on MB1 FITTINGS**)
- **STA:** Room temperature probe

- **SUA:** Room humidity probe
- **RF:** Smoke detector
- **RFC:** Smoke detector and recirculation damper closure management and external air intake
- **PR1:** Remote control panel
- **SCM:** Modulating servo-controls (standard supplied on the MB3 equipment or if present FCT/FCH)
- **SCMRM:** Modulating Servo-control with spring return
- **CA:** Waterproof headphones on external air intake
- **CF:** Flue pipe (only on version with gas burner module)
- **GP:** Protection grille for external coils
- **VT:** antivibration mounts
- **MSSM:** Delivery silencers forms (only for rear air delivery)
- **MSSR:** Recovery silencers forms (only for rear air delivery)

NOTE for more details on accessories and equipment, please refer to the technical handbook

Features and technological advantages

RTX units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- HIGH EFFICIENCY VENTILATION**

Ventilation is one of the major factors of power consumption; for this reason particular attention has been given to the study and the construction of the ventilation system.

They have been used in both supply and recovery (if present), **fans or plug fans with EC brushless motors** which enables high performances, and low power consumption, also compared to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.

A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.

Axial fans for the external section of the unit are of helical type

As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.

- MAXIMUM SEASONAL EFFICIENCY**

To improve the efficiency of the cooling circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for sizes 09 and 14). This feature allows a reduction of consumptions and a better adaptability to the demands of the system., especially in the operation at partial loads, ensuring higher seasonal efficiency.

- AIR QUALITY IN THE ROOM**

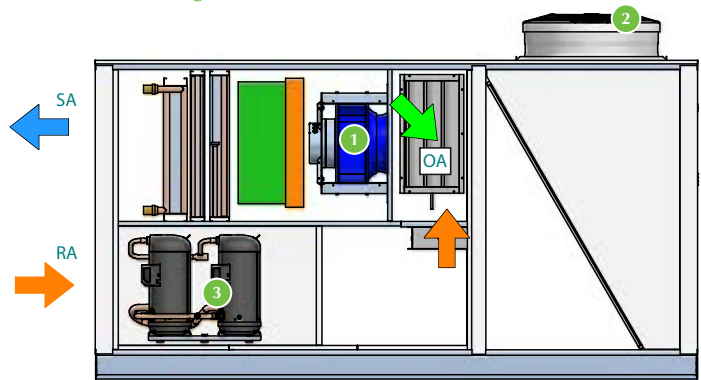
Particular attention has been given to the quality of air naturally in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications. They are also available as (optional) compact filters F7 and F9 or electronic H10 flow of fresh air.

- ACTIVE THERMODYNAMIC RECOVERY**

In the "MB3" setting there is also a thermodynamic recovery for the recovery of energy contained in expelled air, in such a way that the expelled air flow invests the external finned heat exchanger, allowing higher performances and efficiencies.

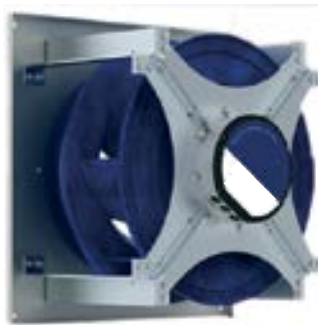
Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of special software.

Basic configuration "MB2"



- 1 Plug fan supply only
 - 2 Axial fans
 - 3 Tandem scroll compressors
- SA air supply
RA extracted air
OA external air

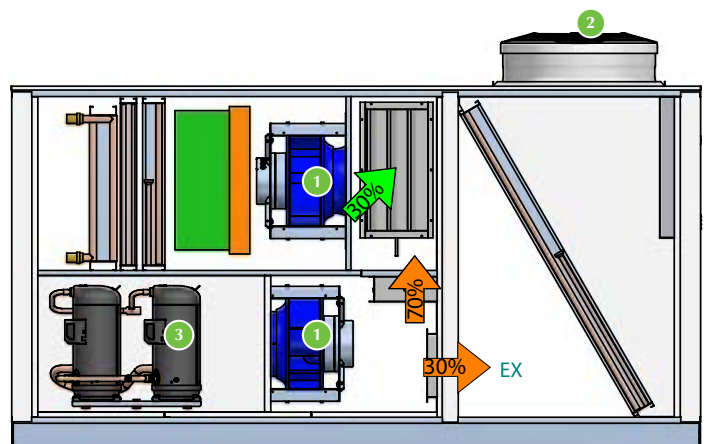
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3



Configuration with thermodynamic recovery "MB3"



- 1 Plugfan supply and recovery
 - 2 Axial fans
 - 3 Tandem scroll compressor
 - 4 Thermodynamic recovery
- EX exhaust air

Technical data

Mod. RTX cooling only (standard version MB2)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	51,6	62,0	70,4	84,1	97,3	107,6	118,6	129,9
Sensitive cooling capacity		kW	38,6	44,4	49,7	60,6	68,3	78,5	85,2	91,2
Compressor input power		kW	11,2	14,9	17,4	18,4	22,2	24,5	28,9	34,3
EER		W/W	4,6	4,2	4,0	4,6	4,4	4,4	4,1	3,8
Cooling capacity	(2)	kW	53,2	63,8	72,5	86,6	100,1	110,6	122,0	133,6
Sensitive cooling capacity		kW	37,3	42,9	48,1	58,6	65,9	75,9	81,5	88,6
Compressor input power		kW	11,3	15,0	17,5	18,5	22,4	24,8	29,2	34,6
EER		W/W	4,7	4,3	4,1	4,7	4,5	4,5	4,2	3,9

Mod. RTX cooling only (MB3 dynamic version)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	52,2	62,6	71,3	85	98,4	108,9	120,2	131,9
Sensitive cooling capacity		kW	38,9	44,4	50,1	61,2	69,1	78,8	85,7	92
Compressor input power		kW	11	14,5	16,9	18	21,6	23,9	28,1	33,2
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Cooling capacity	(2)	kW	53,8	64,5	73,5	87,6	101,3	112	123,7	135,7
Sensitive cooling capacity		kW	37,4	43	48,4	59,2	66,7	76,1	82,7	88,6
Compressor input power		kW	11,1	14,6	17	18,1	21,8	24,1	28,4	33,5
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00

Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 30% external and expelled air
(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 30% external and expelled air

RTX Heat pump version (standard version MB2)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	51,6	62,0	70,4	84,1	97,3	107,6	118,6	129,9
Sensitive cooling capacity		kW	38,6	44,4	49,7	60,6	68,3	78,5	85,2	91,2
Compressor input power		kW	11,2	14,9	17,4	18,4	22,2	24,5	28,9	34,3
EER		W/W	4,6	4,2	4,0	4,6	4,4	4,4	4,1	3,8
Cooling capacity	(2)	kW	53,2	63,8	72,5	86,6	100,1	110,6	122,0	133,6
Sensitive cooling capacity		kW	37,3	42,9	48,1	58,6	65,9	75,9	81,5	88,6
Compressor input power		kW	11,3	15,0	17,5	18,5	22,4	24,8	29,2	34,6
EER		W/W	4,7	4,3	4,1	4,7	4,5	4,5	4,2	3,9
Heating power	(3)	kW	50,0	61,4	69,9	81,7	94,7	103,2	114,7	127,5
Compressor input power		kW	8,7	12	13,6	15	17,3	18,5	21,4	24,9
COP		W/W	5,70	5,10	5,10	5,40	5,50	5,60	5,40	5,10

Mod. RTX Heat pump (MB3 dynamic version)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	52,2	62,6	71,3	85	98,4	108,9	120,2	131,9
Sensitive cooling capacity		kW	38,9	44,4	50,1	61,2	69,1	78,8	85,7	92
Compressor input power		kW	11	14,5	16,9	18	21,6	23,9	28,1	33,2
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Cooling capacity	(2)	kW	53,8	64,5	73,5	87,6	101,3	112	123,7	135,7
Sensitive cooling capacity		kW	37,4	43	48,4	59,2	66,7	76,1	82,7	88,6
Compressor input power		kW	11,1	14,6	17	18,1	21,8	24,1	28,4	33,5
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Heating power	(3)	kW	51,5	63,5	73,0	84,6	98,5	107,6	120,1	133,9
Compressor input power		kW	8,8	12,2	13,8	15,2	17,7	18,8	21,9	25,6
COP		W/W	5,80	5,20	5,30	5,60	5,60	5,70	5,50	5,20

Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 30% external and expelled air
(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 30% external and expelled air

Heating

(3) Internal temperature 20°C b.s., 15°C b.u.; External temperature 7°C b.s. 6°C b.u. (EN14511); Operating with 30% external and expelled air

Technical data

GENERAL DATA			09	10	11	12	13	14	15	16
Compressors										
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	2	2	2	2	2	2	2	2
Circuits		n°	1	1	1	1	1	1	1	1
Capacity steps	(3)	%	2	3	3	3	3	2	3	3
Refrigerant gas		type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Fans										
External fans		type	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC
		n°	2	2	2	2	2	2	2	2
Fans of internal flows		type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
		n°	1	1	1	1	2	2	2	2
		Ø mm	500	560	630	630	500	560	560	560
Fans of internal recovery	(4)	MB3 type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
		MB3 n°	1	1	1	1	2	2	2	2
		MB3 Ø mm	500	500	500	450	450	500	500	500
Air flow of inside fan	nom/max	m³/h	9.500	11.000	13.000	15.500	18.000	20.000	22.000	24.000
	min	m³/h	6.650	7.700	9.100	10.850	12.600	14.000	15.400	16.800
Available static pressure (flow)	(5)	Pa	644	517	566	434	672	608	512	763
Available static pressure (recovery)	(5)	Pa	297	304	314	302	311	313	320	328
Sound data										
Sound pressure		dB(A)	70	69	72	75	76	76	78	80
Sound power		dB(A)	78	77	80	83	84	84	86	88
Power supply		V/ph/Hz	400V/3/50Hz							

(3) Sizes 09-14 don't have UNEVEN compressors

(4) Not present in configurations MB2 and MB1

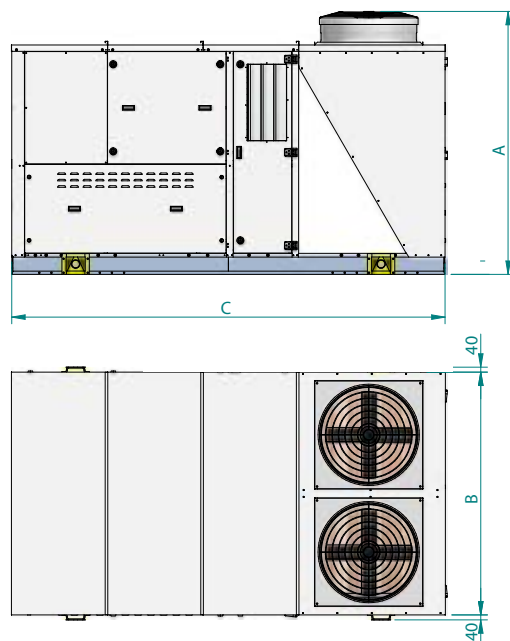
(5) At the nominal/maximum capacity, G4 filter medium fouling

Sound pressure

Sound pressure measured in free field (1m, Q=2) away from the outer surface of the ducted unit, Available static pressure 300Pa at nominal flow (in accordance with the UNI EN ISO 3744).

Note: For more informations please refer to the technical documentation available on the website www.aermec.com

Dimensional data(mm)



Mod. RTX	Vers.		09	10	11	12	13	14	15	16
Height (mm)	A	All	2061	2061	2061	2373	2373	2440	2440	2440
Width (mm)	B	All	1900	1900	1900	2100	2100	2200	2200	2200
Depth (mm)	C		3400	3400	3400	3400	3400	4000	4000	4000
Empty weight (kg)		MB2	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.
		MB3	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. Please contact head office

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

RTY

01/10

Roof-top
Air/Air for external installation
with plug fans and scroll compressors
Cooling capacity 30÷135kW
Heating capacity 29÷142kW

R410A



- **HANDLING SECTION WITH PLUG FANS COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING OPERATION**
- **FOR HIGH CROWDING APPLICATIONS**

Features

- Independent Roof-top type air conditioner for treatment, filtration and renewal of the air, based on the chosen configuration. RTY units are designed for high crowding applications, such as cinemas, conference rooms, restaurants, nightclubs being intended for operation with 80% external and expelled air.
- The standard unit allows to manage the cooling operation and the recovery of the energy contained in the exhaust air allowing higher performances and efficiencies.

Versions

RTY_H heat pumps

Configurations

MB3 with mixing chamber with three dampers, return fan and heat recovery from expelled air.

The configuration can be further customized with a wide choice of accessories

- 1 refrigerant circuit
- High efficiency scroll compressors (tandem UNEVEN) and low power consumption
- Finned exchangers of the refrigerant circuit direct expansion.
- Supply and return fans, of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through all the internal components, with the minimum noise.
- Group of axial fans for extremely silent operation

placed on the condensing section.

- Electronic control of condensation and evaporation are standard to extend further the operating limits of the unit.
- G4 air filter on the flow of outside air and on the recovery; they are installed upstream of the components, to ensure low pressure drops.
- Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions.
- Interfaces for connections to remote control supervision system, available as optional.

Accessories and fittings

- **SSV:** Supervision system
- **RS:** Serial card BMS RS485
- **LW:** Interface card LonWorks
- **BIP:** Interface card Ethernet-pCOWeb (BACNET IP)
- **BAC:** interface card BACnet MS/TP pConet
- **FTH:** Enthalpic free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit
- **FT7:** pocket filters F7 efficiency placed on the flow of supply air.
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air
- **H10:** Electronic filters placed on the flow of supply air.
- **PSF2:** Differential pressure switch signaling fouled filters of recovery, renewal and discharge
- **Gx:** Heating module with gas burner
- **BW:** 2-rows heating coil with hot water
- **BWV2V:** 2-rows heating coil with hot water, with 2-way modulating valve.
- **BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.

- **BE:** Electric heating coil 2 stages (**not available with hot air generator**)
- **BEM:** Modulating electric heating coil (**not available with hot air generator**)
- **BPGC:** After heating coil with hot gas.
- **AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
- **MAN:** High and low pressure gauges
- **U:** installed steam ramp
- **UP:** Immersed electrode producer standard supplied and installed steam ramp
- **CUR:** Humidification control (Humidity probe in recovery, limit humidity probe in supply, contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2:** Probe CO₂
- **SVOC:** Probe VOC
- **STA:** Room temperature probe
- **SUA:** Room humidity probe
- **RF:** Smoke detector
- **RFC:** Smoke detector and recirculation damper

closure management and external air intake

- **PR1:** Remote control panel
- **SCMRM:** Modulating servo-controls with spring return
- **CA:** Waterproof headphones on external air intake
- **CF:** Flue pipe (only on version with gas burner module)
- **GP:** Protection grille for external coils
- **VT:** antivibration mounts
- **MSSM:** Delivery silencers forms (only for rear air delivery)
- **MSSR:** Recovery silencers forms (only for rear air delivery)

NOTE: for more details on accessories and equipment, please refer to the technical handbook.

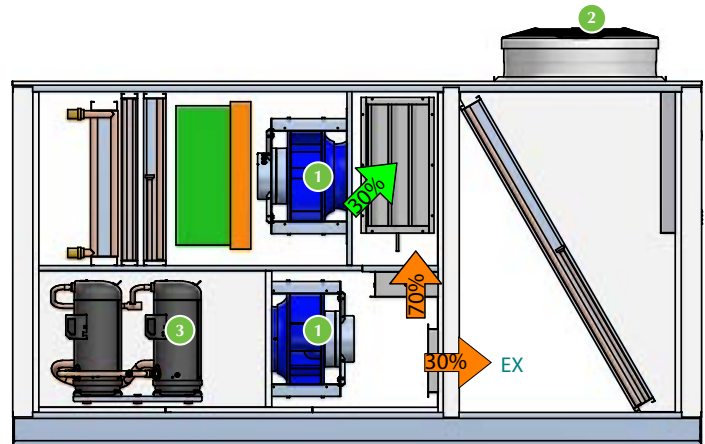
Features and technological advantages

RTY units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- HIGH EFFICIENCY VENTILATION**
Ventilation is one of the major factors of power consumption, for this reason particular attention has been given to the study and the construction of the ventilation system.
 Fans type plug-fans with brushless EC motors have been used in both supply and recovery; they enable high performances and low power consumption; also comparing them to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.
 A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.
- Axial fans for the external section of the unit are of helical type; the electronic control of condensation is standard and it regulates the fan speed according to the load required, allowing a noise reduction.
 As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.
- MAXIMUM SEASONAL EFFICIENCIES**
 To improve the efficiency of the refrigerant circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for size 08. This feature allows a reduction of consumptions and a better adaptability to the demands of the system, especially in the operation at partial loads, ensuring higher seasonal efficiency.
- Particular attention has been given naturally also to the quality of air in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications.
 They are also available as an (optional) compact filters F7 and F9 or electronic H10 on the flow of fresh air.
- ACTIVE THERMODYNAMIC RECOVERY**
It is also available a thermodynamic recovery for the recovery of the energy contained in the exhaust air in such a way that the flow of exhaust air invests the external finned heat exchanger, allowing higher performances and efficiencies.

Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of a special software.

Configuration with thermodynamic recovery "MB3"



- 1 Plugfan supply and recovery
- 2 Axial fans
- 3 Tandem scroll compressors
- 4 Thermodynamic recovery EX exhaust air



Technical data

Mod. RTY Heat pump			01	02	03	04	05	06	07	08	09	10
Cooling capacity	(1)	kW	30,0	39,2	48,2	64,2	73,6	82,3	88,7	110,7	122,4	134,8
Sensitive cooling capacity		kW	21,2	26,9	32,3	42,1	47,6	53,6	59,0	75,1	81,5	88,5
Compressors input power		kW	5,4	8,5	9,8	13,2	15,2	17,6	18,5	24,0	27,1	32,0
EER		W/W	5,6	4,6	4,9	4,9	4,8	4,7	4,8	4,6	4,5	4,2
Cooling capacity	(2)	kW	31,7	41,6	51,0	68,0	78,0	87,2	93,8	116,5	129,1	142,0
Sensitive cooling capacity		kW	18,9	24,1	29,2	38,1	43,3	48,5	53,1	67,2	73,2	79,9
Compressors input power		kW	5,4	8,6	10,0	13,3	15,4	17,8	18,8	24,4	27,7	32,6
EER		W/W	5,9	4,8	5,1	5,1	5,1	4,9	5	4,8	4,7	4,4
Heating capacity	(3)	kW	29,1	39,4	48	65,9	75,5	84,6	90	114,2	126,8	142,2
Compressors input power		kW	4,6	7,2	8,7	13,1	15	16,7	16,5	19,8	22,9	26,8
COP		W/W	6,4	5,4	5,5	5,0	5,0	5,1	5,5	5,8	5,5	5,3

Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 80% external and expelled air

(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 80% external and expelled air

Heating

(3) Internal temperature 20°C b.s., 15°C b.u.; External temperature 7°C b.s. 6°C b.u. (EN14511); Operating with 80% external and expelled air

GENERAL DATA			01	02	03	04	05	06	07	08	09	10	
Compressors													
Compressors	type		scroll										
	n°	2	2	2	2	2	2	2	2	2	2	2	
Circuits	n°		1	1	1	1	1	1	1	1	1	1	
Capacity steps	(3)	%	3	3	3	3	3	3	3	2	3	3	
Refrigerant gas	type		R410A										
Fans													
External fans	type		Axial AC										
	n°	1	1	2	2	2	2	2	2	2	2	2	
Internal fans of flow	type		RAD EC										
	n°	1	1	1	1	1	1	1	1	1	1	2	
	Ø mm	315	315	350	450	450	450	500	560	630	450		
Internal fans of recovery	type		RAD EC										
	n°	1	1	1	1	1	1	1	1	2	2	2	
	Ø mm	350	400	400	450	450	500	500	450	450	450		
Air flow of inside fan	nom/max	m³/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500	
	min	m³/h	2450	3150	3850	4900	5600	6650	8050	9800	10500	11550	
Available static pressure of supply	(4)	max	Pa	1376	1007	722	475	688	644	462	623	464	772
Available static pressure of recovery	(4)	max	Pa	279	281	283	282	283	286	291	298	301	306
Power supply	V/ph/Hz		400V/3/50Hz										

(3) Sizes 08 don't have UNEVEN compressors

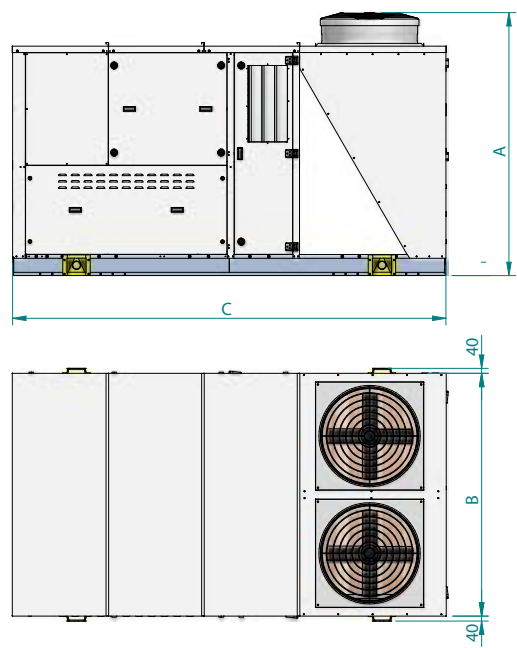
(4) At the nominal/maximum flow rate, G4 medium fouling filter

Sound pressure

Sound pressure measured in free field, (1m, Q=2) away from the external surface of the ducted unit, available static pressure 300Pa at a nominal flow (in accordance with the UNI EN ISO 3744).

Note: For more informations please refer to the technical documentation available on the website www.aermec.com

Dimensional data (mm)



Mod. RTY		Vers.	01	02	03	04	05	06	07	08	09	10
Height	(mm)	A	All	2061	2061	2061	2373	2373	2373	2373	2373	2373
Width	(mm)	B	All	1900	1900	1900	2100	2100	2100	2100	2100	2100
Depth	(mm)	C	All	3400	3400	3400	3400	3400	3400	3400	3400	3400
Empty weight	(kg)			c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. please contact head office

RTE

ROOF-TOP cooling only and heat pump unit
Cooling capacities from 11,3 up to 55,9 kW
Heating capacities from 11,5 up to 55,70 kW

R410A



Features

The RTE rooftop units represent the ideal solution for air conditioning medium-small applications for tertiary and commercial use.

The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.

The availability of many accessories also confers great versatility, thus making the range perfectly suitable for the varied system requirements.

They are reversible air-cooled, used in winter and summer, scroll compressors with R410A refrigerant fluid.

Structure:

For 025, 030, 040, 050 sizes it is self-supporting with simple aluminium alloy panelling with isolation of the air handling section via closed cell expanded polyethylene (density 30 kg/m³). For 080, 090, 100, 150, 200 sizes it is self-supporting with internal and external aluminium alloy sandwich-type panelling with thickness of 25 mm and injected polyurethane insulation (density 42 kg/m³) for the perimeter panels and for the roof of the air handling section.

Handling section fans:

for sizes 025, 030, 040, 050, the fans are the centrifugal double intake type directly coupled with the electronic device for variation of the number of revs

as per standard. For sizes 080, 090, 100, 150, 200 the fans are the double intake centrifugal type coupled using belts and pulleys with variable pitch.

The direction of delivery air flow can be:

RTE 020...050

- Rear

RTE 080...200

- Rear / lower / upper

Helical 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 level and high efficiency thanks to the use of R410A gas, internal and external coil

with copper pipes and high efficiency aluminium louvers. Air filtering using synthetic pleated filters with G4 efficiency (EN779).

Microprocessor adjustment

complete with electric control board, probes and actuators for all components.

models available

RTE F

Cooling only version.

RTE H

Heat pump version.

Accessories

SM - Mixing chamber 2 dampers.
Including damper servocontrols and rain-proof hoods.

SM3P - Mixing chamber 3 dampers.
3-damper mixing chamber with return fan and rear intake, including damper servocontrols, rain-proof hoods and management of the free-cooling for temperature.

SM3I - Mixing chamber 3 dampers.
3-damper mixing chamber with return fan and lower intake, including damper servocontrols, rain-proof hoods and management of the free-cooling for temperature.

SCSM - Mixing chamber 2 dampers.
Including servocontrols with dampers spring return and rain-proof hoods.

SCSM3P - Mixing chamber 3 dampers.
3-damper mixing chamber with return fan and rear intake, including spring return servocontrols, dampers, rain-proof hoods and management of the free-cooling for temperature.

SCSM3I - Mixing chamber 3 dampers.
3-damper mixing chamber with return fan and lower intake, including spring return servocontrols, dampers, rain-proof hoods and management of the free-cooling for temperature.

P - filters pressure switch.

BRT2 - 2 row water coils .
Water coils for two row heating.

BRT3 - 3 row water coils
Water coil for three row post-heating.

BRE - Electric coils.
Electric coil. See the table below.

TP - Pressure transducers.
As per standard on all heat pump models.

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.

DP - dehumidification and post-heating kit.
Kit for management of dehumidification and post-heating. It can be coupled with the PUC accessory (Humidification contact).

FCH - enthalpy freecooling.
Only for models from 100 to 200 and the 3-damper mixing chamber, if present.
It can be coupled with:
- the DP accessory (dehumidification and post-heating management kit) only in presence of the 3-shutter mixing chamber and water or electric coil.
- the PUC accessory (Humidification contact) only with 3-damper mixing chamber.
puc - humidification contact
Only for 100, 150, 200 models.
ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with one humidity probe positioned in the environment air return. A humidity probe is also supplied to be positioned downstream from the humidification section.

sqa Air quality probe.
Only for 100, 200 models.

PR2 - REMOTE panel.
Allows to control the rooftop at a distance.

GP - protection grid.
Protects the external coil from blows and to prevents access to the underlying area where the compressors and the chiller circuit are housed.

VT - Rubber anti-vibration mounts.
Rubber anti-vibration mounts. Select the VT model from the compatibility table.

AVX - Spring anti-vibration mounts.
Spring anti-vibration mounts. Select the AVX model from the compatibility table.

RC Roof-curb.
Only for models from 080 to 200.

Attention: The standard configuration control is however able to manage the following accessories, which can also be added at a later date, SM, PF, SSV (supervisor), PR2, TP. For any other accessory, change the electric control board.
Independently from the type of control, GP, VT, AVX, RC can be supplied at a later date.

Mod.	25	30	40	50	80	90	100	150	200
SM	✓	✓	✓	✓	✓	✓	✓	✓	✓
SM3P	✓	✓	✓	✓	✓	✓	✓	✓	✓
SM3I					✓	✓	✓	✓	✓
SCSM	✓	✓	✓	✓	✓	✓	✓	✓	✓
SCSM3P	✓	✓	✓	✓	✓	✓	✓	✓	✓
SCSM3I				✓	✓	✓	✓	✓	
PF	✓	✓	✓	✓	✓	✓	✓	✓	✓
BRT2	✓	✓	✓	✓	✓	✓	✓	✓	✓
BRT3	✓	✓	✓	✓	✓	✓	✓	✓	✓
BRE103 (4)	✓	✓	✓	✓					
BRE106	✓	✓	✓	✓					
BRE109	✓	✓	✓	✓					
BRE107					✓	✓			
BRE112					✓	✓			
BRE118					✓	✓			
BRE212						✓	✓	✓	
BRE218						✓	✓	✓	
BRE224						✓	✓	✓	
BRE236						✓	✓	✓	
TP	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCPR	✓	✓	✓	✓	✓	✓	✓	✓	✓
DP	✓	✓	✓	✓	✓	✓	✓	✓	✓
DP+FCH (1)						✓	✓	✓	
PUC+FCH (2)						✓	✓	✓	
PUC+DP (3)						✓	✓	✓	
FCH							✓	✓	✓
PUC							✓	✓	✓
SQA							✓	✓	✓
PR2	✓	✓	✓	✓	✓	✓	✓	✓	✓
GP	✓	✓	✓	✓	✓	✓	✓	✓	✓
VT	✓	✓	✓	✓	✓	✓	✓	✓	✓
AVX	✓	✓	✓	✓	✓	✓	✓	✓	✓
RC					✓	✓	✓	✓	✓

(1) Only if 3-damper mixing chamber and water or electric coil present.

(2) Only with 3-damper mixing chamber.

(3) Only if electric or water coil present.

(4) BRE103 = electric coils, the first indicates the stages, the last two characters indicate the power (e.g.: 1 stage, 3 kW).

Technical data

RTE F		25	30	40	50	80	90	100	150	200
Cooling capacity	kW	11,3	13,2	17,2	20,9	25,5	29,7	39,7	48,8	55,9
Sensitive nominal cooling capacity	kW	6,8	8,2	10,3	12,4	15,7	18,8	24	29,6	32,8
Compressor input power	kW	2,4	2,9	3,2	3,8	5,4	6,2	8,1	10,7	11,8
EER	W/W	4,71	4,55	5,38	5,50	4,72	4,79	4,90	4,56	4,74
RTE H		25	30	40	50	80	90	100	150	200
Cooling capacity	kW	11,1	13,2	16,7	20,3	25,1	29,5	39,4	48,3	55,5
Sensitive nominal cooling capacity	kW	6,7	8,2	10,2	12,2	15,5	18,7	23,8	29,4	32,5
Compressor input power	kW	2,4	3	3,3	4	5,4	6,2	8,1	10,7	11,80
EER	W/W	4,63	4,40	5,06	5,08	4,65	4,76	4,86	4,51	4,70
Heating capacity	kW	11,5	12,5	17,1	19,3	25,3	29,1	39,1	48,6	55,70
Compressor input power	kW	2,3	2,3	3,1	3,3	4,6	5,6	6,9	8,8	10,40
COP	W/W	5,00	5,43	5,52	5,85	5,50	5,20	5,67	5,52	5,36
Nominal air flow rate internal fans	m ³ /h	1.500	1.900	2.400	2.900	4.000	4.500	6.000	8.000	9.000
Minimum air flow for the handling section	m ³ /h	1.275	1.615	2.040	2.465	3.400	3.825	5.100	6.800	7.650
Maximum air flow for the handling section	m ³ /h	1.725	2.185	2.760	3.400	4.600	5.175	6.900	9.200	10.350
Compressors	type	Scroll								
	n°	1	1	1	1	1	1	1	1	1
Cooling circuits	n°	1	1	1	1	1	1	1	1	1
Fans	type	Axial								
External fans	n°	1	1	1	1	1	1	4	4	4
Internal fans	n°	1	1	1	1	2	2	2	2	2
Air filters	type	G4								
Thickness	mm	50								
Evaporator	type	1								
Maximum available pressure	Pa	315	275	345	287	350	330	365	360	330
Water coil heating capacity *	kW	16,3	19,2	22,5	25,5	36,1	39	57	68,9	74,4
		22,5	27	32,2	37,1	52,1	56,8	81,8	100,4	109,3
Electric coil heating capacity	kW	3/6/9	3/6/9	3/6/9	6/12/18	6/12/18	12/18/24/36	12/18/24/36	12/18/24/36	12/18/24/36
Sound pressure level	dB(A)	58	58	61	61	64	64	67	67	67
Electrical power supply V/Ph/Hz	400/3+N/50									

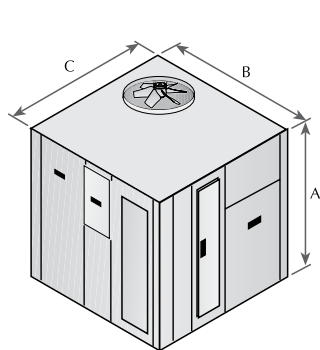
* Room air 20°C d.b., water 80/70°C.

Cooling capacity
RH 50% (Twb 19°C), Text 35°C RH 50%; Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

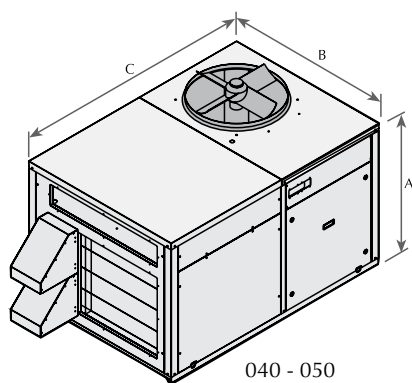
Heating capacity
Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%. Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

Sound pressure:
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

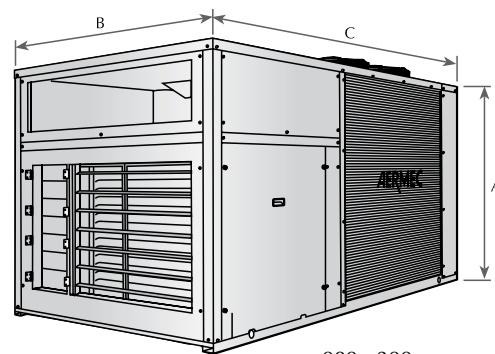
Dimensional data (mm)



025 - 030



040 - 050



080 - 200

RTE			25	30	40	50	80	90	100	150	200
Height	A	mm	1.040	1.040	1.040	1.040	1.175	1.175	1.500	1.500	1.500
Width	B	mm	1.175	1.175	1.175	1.175	1.240	1.240	1.510	1.510	1.510
Depth	C	mm	1.155	1.155	1.155	1.155	1.805	1.805	2.710	2.710	2.710
RTE F weight		kg	235	250	270	285	435	450	650	675	735
RTE H weight		kg	245	260	280	300	455	470	690	710	770

Dimensions and weights of the basic set-up unit.

RTE

ROOF-TOP cooling only and heat pump unit
Cooling capacities from 82,5 up to 152 kW standard version
Heating capacities from 77,5 up to 148 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 envi-

ronment 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					High temperature (A)			Low noise (L)		
		240	260	300	350	400	240	260	300	240	260	300
Cooling capacity	kW	82,5	94,2	109,7	137,9	152,1	83,7	96,6	116,1	74,1	89,1	109,3
Sensitive nominal cooling capacity	kW	50,2	61,8	66,6	77,8	83,1	50,2	61,6	67,7	45,9	59,3	66,3
Compressor input power	kW	16	18,9	23,6	28,6	33,9	16,5	18,8	23	17,5	21,6	24,6
EER	W/W	5,16	4,98	4,65	4,82	4,49	5,07	5,14	5,05	4,23	4,13	4,44

RTE H		Standard					High temperature (A)			Low noise (L)		
		240	260	300	350	400	240	260	300	240	260	300
Cooling capacity	kW	81,8	93,4	111,8	137	150	82,9	95,7	114,9	72,3	89,1	90,4
Sensitive nominal cooling capacity	kW	49,7	61,8	67,2	77,1	83,1	49,7	61,6	67,7	45,9	59,3	64,2
Compressor input power	kW	16	18,9	23,6	28,6	33,9	16,5	18,8	23	17,5	21,6	21,7
EER	W/W	5,11	4,94	4,74	4,79	4,42	5,02	5,09	5,00	4,13	4,13	4,17
Heating capacity	kW	77,5	89,9	107,7	133	148	81,1	95,6	106,2	78	88,8	88,1
Compressor input power	kW	13,4	14,4	17,3	22,5	26,8	13,8	15,3	17,9	13,9	15	17,8
COP	W/W	5,8	6,2	6,2	5,9	5,5	5,9	6,2	5,9	5,6	5,9	4,9

Nominal air flow rate internal fans	m³/h	12.000	17.000	20.000	22.000	23.000	12.000	17.000	20.000	12.000	17.000	20.000
Minimum air flow for the handling section	m³/h	10.400	14.800	17.400	19.100	19.550	10.400	14.800	17.400	10.400	14.800	17.400
Maximum air flow for the handling section	m³/h	14.100	20.000	23.500	23.500	23.500	14.100	20.000	23.500	14.100	20.000	23.500
Compressors	Type	Scroll										
	n°	2										
Cooling circuits	n°	2										
External fans	Type	Axial										
	n°	4										
Nominal air flow rate	m³/h	32.000	29.000	28.000	40.000	34.200	29.000	28.000	33.000	19.000	18.000	22.000
Internal fans	q.tà	1										
Maximum available pressure	Pa	200										
Air filters	Type	G4										
Thickness	mm	50										
Evaporator	Type	4										
Water coil heating capacity *	kW	140	179	200	213	219	140	179	200	140	179	200
Gas heating module heating capacity	kW	72	92	92	92	92	72	92	92	72	92	92
		92	150	150	150	150	92	150	150	92	150	150
Sound pressure level	dB(A)	72	73	74	77	78	72	73	74	69	70	71
Electrical power supply V/Ph/Hz		400/3+N/50										

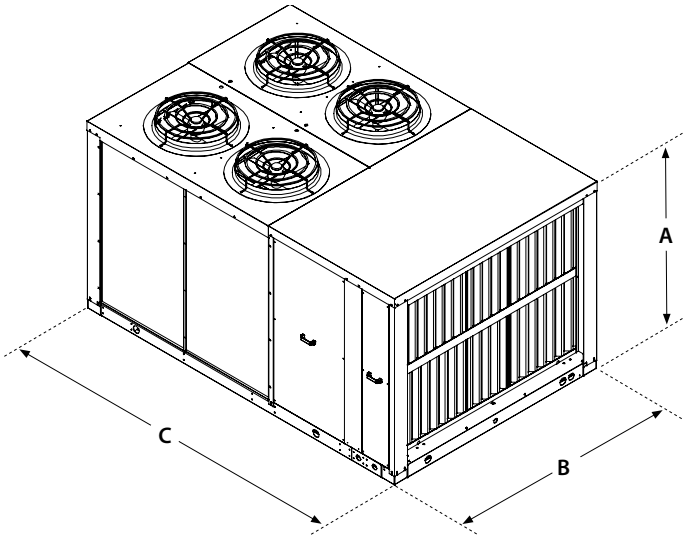
* Room air 20°C d.b., water 80/70°C.

Cooling capacity
RH 50% (Twb 19°C), Text 35°C RH 50%; Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

Heating capacity
Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%. Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

Sound pressure:
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

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.

RTE

ROOF-TOP cooling only and heat pump unit
Cooling capacities from 150 up to 254 kW standard version
Heating 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					High temperature (A)		
		480	530	600	700	800	480	530	600
Cooling capacity	kW	160,6	189,8	210,9	247	274,4	167,3	195,6	223,6
Sensitive nominal cooling capacity	kW	119,5	147,1	159,3	184,5	201,5	123,3	149,6	150,5
Compressor input power	kW	39,3	43,1	47	58	69,9	36,9	40,9	45,1
EER	W/W	4,09	4,40	4,49	4,26	3,93	4,53	4,78	4,96

RTE H		Standard					High temperature (A)		
		480	530	600	700	800	480	530	600
Cooling capacity	kW	155,7	188,3	207,9	245,8	272,2	163,7	190,5	219,3
Sensitive nominal cooling capacity	kW	120,5	145,9	157,8	183,1	201,2	122,8	147,4	158,8
Compressor input power	kW	41,4	43,8	48,8	59,1	70,9	37,5	42,4	47,6
EER	W/W	3,76	4,30	4,26	4,16	3,84	4,37	4,49	4,61
Heating capacity	kW	158,1	186,4	212,7	242,2	278,8	167,3	191,6	217,2
Compressor input power	kW	28,7	31,5	37	49,2	60,4	29,5	31,8	36,9
COP	W/W	5,51	5,92	5,75	4,92	4,62	5,67	6,03	5,89
Nominal air flow rate internal fans	m³/h	26.500	29.500	31.500	35.000	38.500	26.500	29.500	31.500
Minimum air flow for the handling section	m³/h	22.500	25.000	26.800	29.800	32.700	22.500	25.000	26.800
Maximum air flow for the handling section	m³/h	30.500	34.000	36.300	40.300	44.300	30.500	34.000	36.300
Compressors	Type	Scroll tandem							
	n°	4							
Cooling circuits	n°	2							
External fans	Type	Axial							
	n°	4							
Nominal air flow rate	m³/h	74.600	72.400	69.200	84.400	80.600	72.400	69.200	67.400
Internal fans	n°	1							
Maximum available pressure	Pa	200							
Air filters	Type	G4							
Thickness	mm	50							
Evaporator	Type	3	4	4	4	4	4	4	4
Sound pressure level	dB(A)	82	83	84	87	88	82	83	84
Electrical power supply V/Ph/Hz		400/3/50							

RTE F		Silenziosa L				
		480	530	600	700	800
Cooling capacity	kW	157,6	189,3	215,6	245,4	268
Sensitive nominal cooling capacity	kW	123,7	147,2	160,3	184,3	199,6
Compressor input power	kW	40,7	42,9	45,1	58,7	73,3
EER	W/W	3,87	4,41	4,78	4,18	3,66

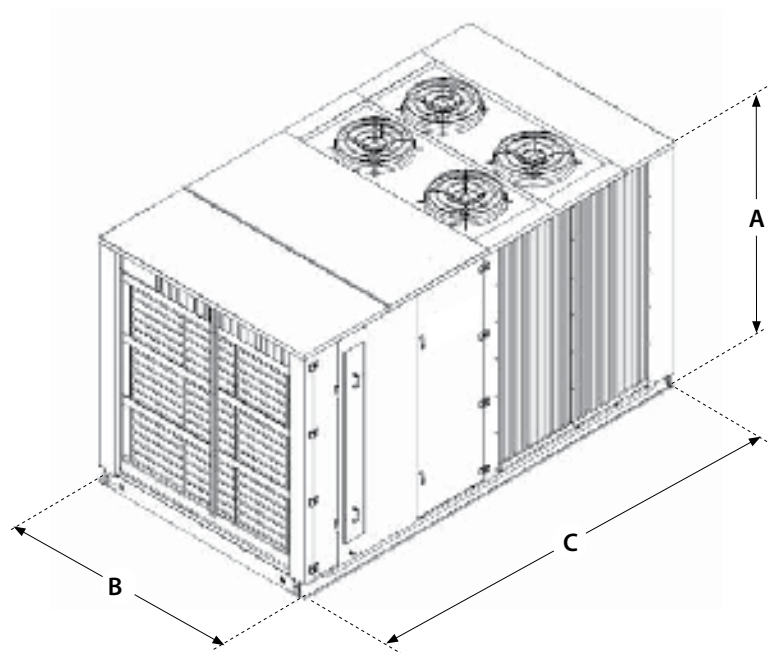
RTE H		Standard				
		480	530	600	700	800
Cooling capacity	kW	154,4	188,3	211,8	242,5	266
Sensitive nominal cooling capacity	kW	119,1	145,9	159,8	182,5	198,7
Compressor input power	kW	42,6	43,8	46,5	60,7	74,6
EER	W/W	3,62	4,30	4,55	4,00	3,57
Heating capacity	kW	157	186,7	205,8	238,9	262,8
Compressor input power	kW	28,6	31,5	36,4	48,9	58,5
COP	W/W	5,49	5,93	5,65	4,89	4,49
Nominal air flow rate internal fans	m³/h	26.500	29.500	31.500	35.000	38.500
Minimum air flow for the handling section	m³/h	22.500	25.000	26.800	29.800	32.700
Maximum air flow for the handling section	m³/h	30.500	34.000	36.300	40.300	44.300
Compressors	Type	Scroll tandem				
	n°	4				
Cooling circuits	n°	2				
External fans	Type	Axial				
	n°	4				
Nominal air flow rate	m³/h	74.600	72.400	69.200	84.400	80.600
Internal fans	n°	1				
Maximum available pressure	Pa	200				
Air filters	Type	G4				
Thickness	mm	50				
Evaporator	Type	3	4	4	4	4
Sound pressure level	dB(A)	82	83	84	87	88
Electrical power supply V/Ph/Hz		400/3/50				

Cooling capacity
RH 50% (Twb 19°C), Text 35°C RH 50%; Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

Heating capacity
Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%. Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

Sound pressure:
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

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.

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
	A (230 V)	98	142	168	157	190
Peak current		48	68	101	77	115

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

Cooling

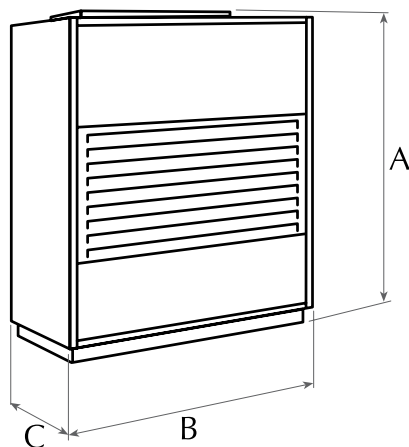
- room air temperature 27 °C D.B., 19 °C W.B.;
- condensing temperature 40 °C;
- * condensing temperature 35 °C.

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)



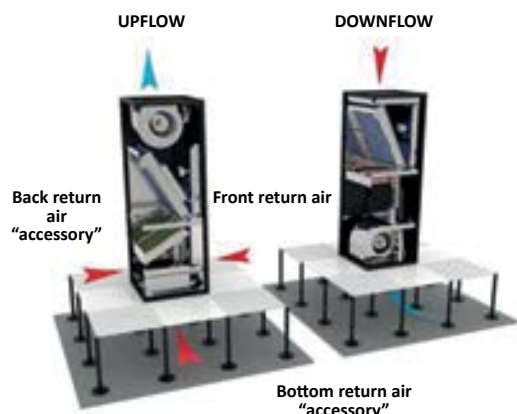
Mod.		307 W	507 W	757 W	1007 W	1507 W
Height	A	1290	1410	1680	1700	1745
Width	B	900	1040	1220	1450	1880
Depth	C	494	558	648	723	753
Weight	kg	147	184	273	335	484

DAS

06/60

R410A

Precision Air Conditioning units:
AX Air condensed direct expansion
WX Water condensed direct expansion
CW cooled water
Scroll compressors
Cooling capacity 6÷65kW



- **DUCTABLE PRECISION AIR CONDITIONERS**
- **DEDICATED TO STRUCTURES FOR TELECOMMUNICATIONS, COMPUTER ROOMS, DATA CENTERS, STERILIZED ROOMS AND LABORATORIES**
- **POSSIBILITY OF TOTAL CONTROL OF TEMPERATURE, HUMIDIFICATION, DEHUMIDIFICATION, AFTER HEATING AND FILTRATION**

FEATURES

MODELS

- **DAS_D** down flow
- **DAS_U** up flow

VERSIONS

- **DAS_AX** Air condensed direct expansion
- **DAS_WX** Water condensed direct expansion
- **DAS_CW** cooled water

FEATURES

The units Precision Air Conditioning DAS are designed for precision air conditioning of technological medium-small rooms characterized from elevated thermal loads to eliminate, such as computing centres and other applications where high performances and maximum reliability are required in a restrained area. Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating (with electric coil, water-coil or hot gas) and high efficiency filters.

They are available in three different versions: with air condensed direct expansion (standard supplied with external remote condenser), with water or cooled water condensed direct expansion.

STRUCTURE

The structure is composed by a painted aluminium frame with black aluminium angles and removable panels made of painted plate galvanized with epoxy powders, which can grant a lasting finish. The standard supplied unit is of grey-black colour (RAL 7021). The colour light grey (RAL 7035) is optional.

FANS

- **DAS 6÷26**

The units are equipped with centrifugal fans with double aspiration forward curved blades and EC motor directly coupled with electronic control.

- **DAS 28÷60**

The units are equipped with centrifugal fans with double aspiration forward curved blades, 3-phase asynchronous motor connected to the fan through "belt and pulley". Centrifugal fans with back curved blades are available for all the units (plug-fan) with EC motor directly coupled with electronic control to minimize electric consumption and sound emissions.

FILTERS

Filters with corrugated separator, class of efficiency G4 (according to EN 779). There are available as optional, high efficiency filters with pre-filter, class G3+F6.

ELECTRONIC REGULATION

The microprocessor regulation permits to visualize: return air temperature, air temperature humidity (optional), condensation pressure (optional) and cooled coil temperature and to regulate the load on return air. The microprocessor manages also the working alarms.

Possibility of interfacing with supervision system (there are different communication protocols available, ModBus, BACnet...). Visualisation of all working parameters in 4 languages.

COMPRESSOR

(ONLY FOR VERSIONS AX, WX)

High efficiency Scroll compressors with low electric absorption.

EVAPORATOR

(ONLY FOR VERSIONS AX, WX)

The finned pack evaporation coil is with copper pipes internally corrugated and aluminium fins blocked through pipes' mechanical expansion. The fins are covered with hydrophilic film, which, by guaranteeing a successful removal of water drops from the surface, it permits to increase the coil's performances.

CONDENSER

(ONLY FOR VERSIONS WX)

Braze welded plate heat exchanger in steel AISI 316. The heat exchanger is externally coated with closed cells neoprene anticondensate material.

COOLED WATER COIL

(ONLY FOR VERSIONS CW)

The finned pack cooling coil is with internally lined copper pipes and aluminium fins blocked through mechanical expansion of pipes. The fins are coated with hydrophilic film which guarantees a successful removal of water drops from the surface and permits to increase the coil's performances. Modulating 3-way valve is standard supplied.

ACCESSORIES

Wide range of accessories, which can be chosen by using the selection programme, that permits also a real time-fast dimensioning of the units.

CONFIGURATOR

Field DESCRIPTION

1, 2, 3 DAS

4 MODELS

D down flow

U up flow

5, 6 SIZES

06-08-10-13-15-17-20-22-26-28-31-35-40-45-50-55-60

7, 8 VERSIONS

AX Air condensed

WX Water condensed

CW cooled water

9 NUMBER OF COMPRESSORS

0 without compressor (only for CW versions)

1 n. 1 compressor (can be selected for versions AX and WX)

2 n. 2 Tandem compressors (can be selected for versions AX and WX)

10 POWER SUPPLY

0 400V/3/50Hz

TABLE OF COMPRESSORS' COMPATIBILITY		
DAS_U "all versions"	N. of compressors	
	1 single	2 tandem
6	•	
8	•	
10	•	
13	•	
15	•	
17	•	
20		•
22		•
26		•
28	•	•
31	•	•
35	•	•
40	•	•
45		•
50		•
55		•
60		•

- Possible configurations

TABLE OF COMPRESSORS' COMPATIBILITY		
DAS_D "all versions"	N. of compressors	
	1 single	2 tandem
6	•	
8	•	
10	•	
13	•	
15	•	
17	•	
20		•
22		•
26		•
28	•	
31	•	
35	•	
40	•	
45	•	
50		•
55		•
60		•

- Possible configurations

TECHNICAL DATA

DAS	VERSIONS	MOD	U.M.	06	08	10	13	15	17	20	22	26	28	31	35	40	45	50	55	60
Cooling capacity	AX	U	kW	6,4	8,2	10,6	13,7	15,4	17,8	21,1	22,5	27,4	26,5	29,8	34,2	38,7	43,0	50,3	56,0	62,2
		D	kW	6,5	8,4	10,8	13,9	15,6	18,0	21,5	22,9	27,4	26,1	29,4	33,7	38,2	43,2	49,6	55,3	61,5
	WX	U	kW	6,5	8,2	10,8	13,9	15,8	18,1	21,8	22,5	27,5	26,5	30,1	35,0	39,0	43,0	50,9	57,4	64,7
		D	kW	6,6	8,4	11,0	14,1	16,0	18,3	22,2	22,9	27,5	26,1	29,7	34,5	38,5	43,2	50,2	56,6	63,8
	CW	U	kW	7,6	9,2	11,2	14,7	16,6	18,1	21,8	23,4	25,6	34,2	38,0	43,7	47,6	50,6	51,3	58,5	62,3
		D	kW	7,6	9,7	11,7	14,7	16,6	18,1	21,8	23,4	25,6	34,2	38,0	43,7	47,6	50,6	51,3	58,5	62,3
FANS																				
Type	All	U/D	-	EC	EC	EC	EC	EC	EC	EC	EC	EC	AC	AC	AC	AC	AC	AC	AC	AC
Number of fans	All	U/D	n°	1	1	1	1	1	1	2	2	2	1	1	1	1	1	2	2	2
Air flow rate	All	U/D	m³/h	1980	2700	3420	3600	4320	5040	6120	7200	7200	8640	10080	11880	13320	13320	15120	15120	16560
Maximum available static pressure	All	U	Pa	564	507	295	315	415	198	335	185	70	160	35	35	25	25	255	255	35
	All	D	Pa	523	442	191	307	405	190	327	177	57	75	265	165	175	175	35	35	75
SOUND DATA																				
Discharge sound power	All	U	dB(A)	72	78	81	78	74	78	82	86	86	90	93	92	94	94	97	97	98
	All	D	dB(A)	71	77	80	77	73	77	81	85	85	87	91	90	92	92	89	89	91
Intake sound power	All	U	dB(A)	58	63	66	63	62	65	67	71	71	79	81	81	83	83	84	84	86
	All	D	dB(A)	62	68	71	67	66	70	72	76	76	68	71	71	73	73	69	70	71
Sound power radiated from the unit	All	U	dB(A)	58	63	66	63	62	65	67	71	71	79	81	81	83	83	84	84	86
	All	D	dB(A)	58	63	66	63	62	65	67	71	71	70	73	72	75	75	71	71	73
Sound pressure at 3m	All	U	dB(A)	43	49	51	48	47	50	53	57	57	64	66	67	68	69	70	70	72
	All	D	dB(A)	43	48	51	48	47	50	52	56	56	55	58	58	60	60	56	57	58

EC Centrifugal fan with forward curved blades and motor directly coupled with electronic control.

AC Centrifugal fan with forward curved blades and 3-phase asynchronous motor connected through belt and pulley.

COOLING

External air temperature 24°C

Relative humidity temperature 45%

External air temperature 35°C

Sound power

All the quoted sound data have been measured relatively to the values limited to the third-octave-band, using a sound intensity measurer regulated by a real time analyser, in accordance with the regulation BS EN ISO9614 Part 1: 1995.

All the quoted sound power levels are calculated according to the sound intensity measured in compliance with BS EN ISO9614 Part 1: 1995.

Sound pressure

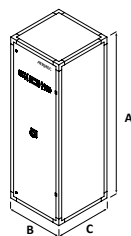
The sound pressure levels are calculated according to the sound power by using the half-hemispheric method in which the source of noise is situated on a crossing point compared with two delimitations, for example the floor and a single wall.

Note: For further informations, please refer to the selection software “Aermec Performance Selection”.

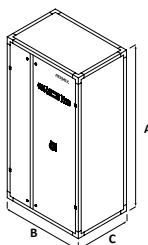
DIMENSIONS

DAS	VERSIONS	MOD.	U.M.	06	08	10	13	15	17	20	22	26	28	31	35	40	45	50	55	60
Height	A	AX-WX-CW	U-D	mm	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940
Width	B	AX-WX-CW	U-D	mm	670	670	670	990	990	990	1310	1310	1310	1460	1460	1835	1835	1835	2170	2170
Depth	C	AX-WX-CW	U-D	mm	670	670	670	670	670	670	670	670	670	750	750	750	750	750	750	750
Weight	AX	U-D	Kg	173	179	184	220	231	232	303	303	307	412	412	474	497	563	619	636	640
	WX	U-D	Kg	188	199	203	243	261	264	340	340	343	468	468	534	562	652	709	729	733
	CW	U-D	Kg	138	147	150	190	195	195	246	246	246	349	347	408	429	440	485	498	498

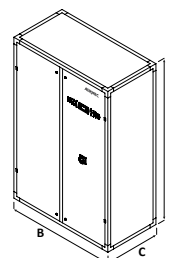
DAS 6-8-10



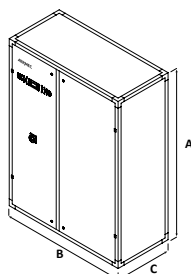
DAS 13-15-17



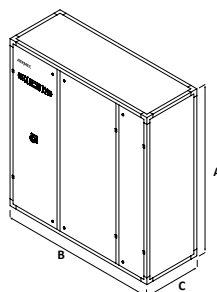
DAS 20-22-26



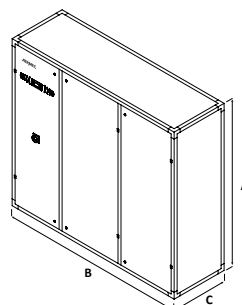
DAS 28-31



DAS 35-40-45



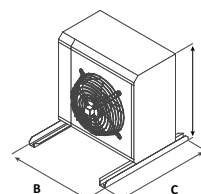
DAS 50-55-60



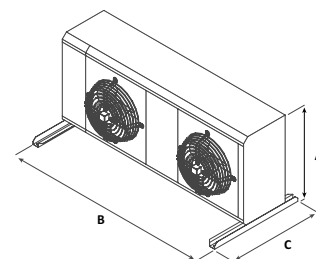
COUPLING

Sizes	Code of remote condenser	Dimensions in horizontal position			Wasted thermal power kW	Sound power dB(A)	Sound pressure dB(A) @10m
		A Height (mm)	B Width (mm)	C Depth (mm)			
DAS 06	CR12	972	907	1000	14	74	46
	CR16	972	907	1000	19	74	46
DAS 08	CR16	972	907	1000	19	74	46
	CR22	1167	1102	1000	25	78	50
DAS 13	CR22	1167	1102	1000	25	78	50
	CR30	1167	1102	1000	31	78	50
DAS 15	CR22	1167	1102	1000	25	78	50
	CR30	1167	1102	1000	31	78	50
DAS 17	CR30	1167	1102	1000	31	78	50
	CR50	1167	2184	1000	54	81	53
DAS 20	CR30	1167	1102	1000	31	78	50
	CR50	1167	2184	1000	54	81	53
DAS 22	CR50	1167	2184	1000	54	81	53
	CR65	1167	2184	1000	71	81	53
DAS 26	CR50	1167	2184	1000	54	81	53
	CR65	1167	2184	1000	71	81	53
DAS 28	CR50	1167	2184	1000	54	81	53
	CR65	1167	2184	1000	71	81	53
DAS 31	CR50	1167	2184	1000	54	81	53
	CR65	1167	2184	1000	71	81	53
DAS 35	CR50	1167	2184	1000	54	81	53
	CR65	1167	2184	1000	71	81	53
DAS 40	CR65	1167	2184	1000	71	81	53
	CR80	1167	3565	1000	88	83	55
DAS 45	CR80	1167	3565	1000	88	83	55
	CR105	1167	3565	1000	113	82	55
DAS 50	CR80	1167	3565	1000	88	83	55
	CR105	1167	3565	1000	113	82	55
DAS 55	CR80	1167	3565	1000	88	83	55
	CR105	1167	3565	1000	113	82	55
DAS 60	CR80	1167	3565	1000	88	83	55
	CR105	1167	3565	1000	113	82	55

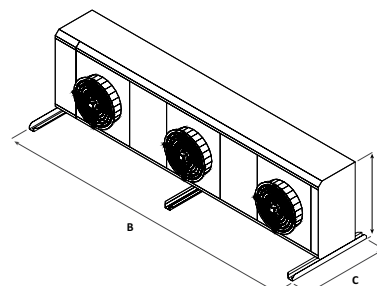
CR 12-16-22-30



CR 50-65



CR 80-105



DAC

09/31

R410A

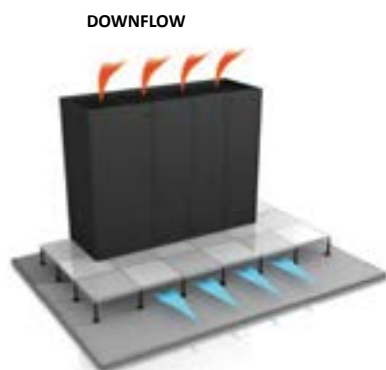
Precision Air Conditioning units:

X Air-condensed direct expansion

W Water-condensed direct expansion

Scroll compressors

Cooling capacity 16÷150kW



- DUCTABLE PRECISION AIR CONDITIONERS
- DEDICATED TO STRUCTURES FOR TELECOMMUNICATIONS, COMPUTER ROOMS, DATA CENTRES, STERILIZED ROOMS AND LABORATORIES
- POSSIBILITY OF TOTAL CONTROL OF TEMPERATURE, HUMIDIFICATION, DEHUMIDIFICATION, AFTER HEATING AND FILTRATION

FEATURES

MODELS

- **DAC_D** down flow

VERSIONS

- **DAC_X** Air-condensed direct expansion
- **DAC_W** Water-condensed direct expansion

FEATURES

The Precision Air Conditioning units DAC are designed for precision air conditioning of technological rooms characterized from elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required.

Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.

In order to guarantee the maximum reliability and flexibility, there are available whether solutions with double circuit or solution with different cooling mediums ("dual cool" solution with a direct expansion circuit and a cooled water circuit in the same unit).

These coolers are designed and optimized for working

king with refrigerant R410A, which is not dangerous for the ozone.

STRUCTURE

The structure is composed by a painted aluminium frame with black aluminium angles and removable panels made of painted plate galvanized with epoxy powders, which can grant a lasting finish.

The standard supplied unit is of colour grey-black (RAL 7021). The colour light grey (RAL 7035) is optional.

COILS

Coils with wide surface, positioned in an ideal way to optimize the air flow and the heat transfer, are realized in copper pipes of cooling quality with aluminium fins linked in a mechanical way.

COMPRESSORS

Scroll compressor with high performances and low power absorption. On the strength of the size, the units can have a single or tandem compressor. In the tandem configuration it is possible to vary the power given on the different capacity steps, activating one of the two compressors one by one, when necessary.

FANS

Centrifugal fans with back curved blades (plug-fan) with EC motor directly coupled with electronic control to minimize electric consumption and sounds emissions.

FILTERS

Filters with corrugated separator, class of efficiency G4 (according to EN 779). There are available as optional high efficiency filters with pre-filters, class G3+F6.

ELECTRONIC REGULATION

The microprocessor regulation permits to visualize: return air temperature, return air temperature humidity (optional), condensation pressure (optional) and cooled coil temperature and to regulate the load on return air. The microprocessor manages also the working alarms.

Possibility of interfacing with supervision system (there are different communications protocols available, ModBus, BACnet...). Visualisation of all working parameters in 4 languages.

EC FANS
PLUG-FAN



ASYMMETRICAL SCROLL
COMPRESSORS



HUMIDIFIER
"ACCESSORY"



DOUBLE COIL



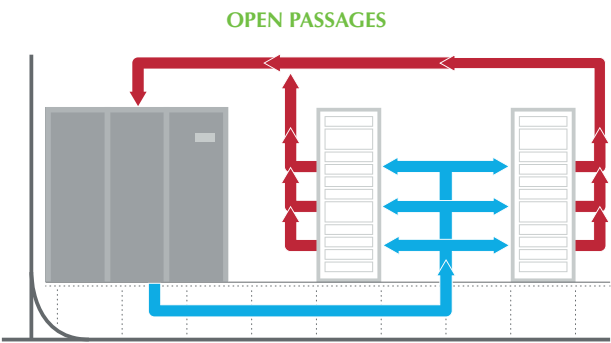
ACCESSORIES

Wide range of accessories, which can be chosen by using the selection programme, that permits also a real-time fast dimensioning of the units.

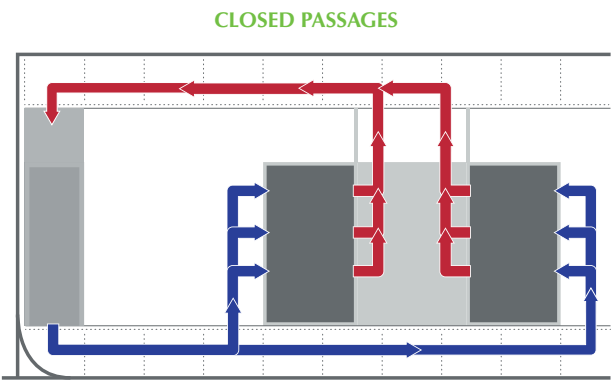
CONFIGURATOR

Field	DESCRIPTION	
1, 2, 3	DAC	
4,5	FRAME 09, 12, 15, 18 19, 25, 31	
6	MODEL D down flow	
7, 8, 9	SIZES 16÷150	
10	CIRCUIT 1 X Air-condensed direct expansion W Water-condensed direct expansion	
11	NUMBER OF COMPRESSORS CIRCUIT 1 1 n°1 compressor 2 n°2 Tandem compressors	
12	CIRCUIT 2 0 Without circuit 2 X air-condensed direct expansion W Water-condensed direct expansion C Cooled water F free-cooling	
13	NUMBER OF COMPRESSOR CIRCUIT 2 0 Without compressor (only for version F) 1 n°1 compressor 2 n°2 Tandem compressors	
14	POWER SUPPLY 0 400V/3/50Hz	

PLANT-ENGINEERING SOLUTION



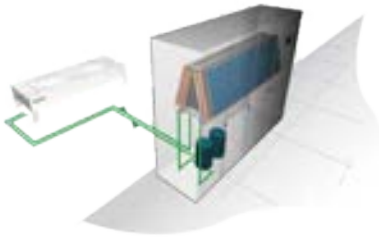
In low density's applications (< 5 kW/rack) this configuration permits to distribute the air in front of racks, without having an appreciable mixing between cold air and hot air flows, as happens instead in rooms with a traditional configuration. This is an easy and flexible solution, if necessary, because it permits to change rapidly, if necessary, the room's layout.



When power density in the server rooms grows, a solution with open passages is no more able to avoid mixing between hot and cold air flows.
For high-medium power density applications (from 6 to 20 kW/rack) it must be used the solution with closed passages. The reduction through hot and cold passages avoids the risk of any mixing between the two air flows, ensuring to the server the needed cold air and increasing the global efficiency of the system.

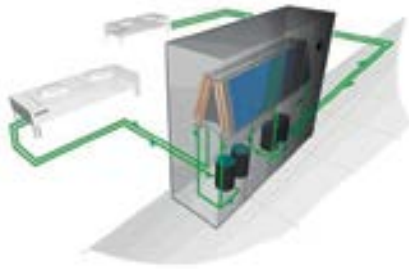
CONFIGURATIONS

X200



Air-condensed direct expansion configuration with single refrigerating circuit. It can have one or two compressors, depending on the size of the unit. The ambient air is cooled in the passage through the evaporation coil. The condensation takes place in the remote condenser positioned outside.

X2X2



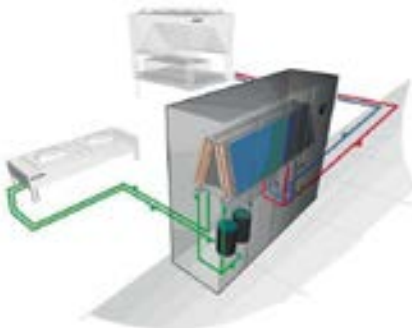
Air-condensed direct expansion configuration with double refrigerating circuit. Each circuit has two tandem compressors of different sizes to increase the capacity steps and to improve the energy efficiency to partial loads. The ambient air is cooled in the passage through the two evaporation coils, which are completely independent. The condensation takes place in the remote condensers positioned outside (one for each circuit).

W2W2



Water-condensed direct expansion with double refrigerating circuit. Each circuit has two tandem compressors of different sizes to increase the capacity steps and to improve the energy efficiency to partial loads. The ambient air is cooled in the passage through the two evaporation coils, which are completely independent. The condensation takes place in plate heat exchangers (one for circuit) inside the unit, in which the refrigerating fluid gives heat to water flow (or water and glycole), which is then cooled externally through two independent dry coolers.

X2C0



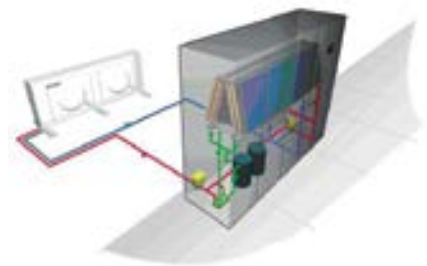
"Dual cool" configuration with two different refrigerating circuits powered by two different cooling mediums: an air-condensed direct expansion circuit (coupled with an external remote condenser) and a cooled water circuit. The electronic regulation allows to design the main circuit while the other is maintained of back-up, occurring only when the primary circuit is not working.

W2C0



"Dual cool" configuration with two different refrigerating circuits powered by two different cooling ways: a water-condensed direct expansion circuit and a cooled water circuit. The electronic regulation allows to design the main circuit while the other is maintained of back-up, occurring only when the primary circuit is not working.

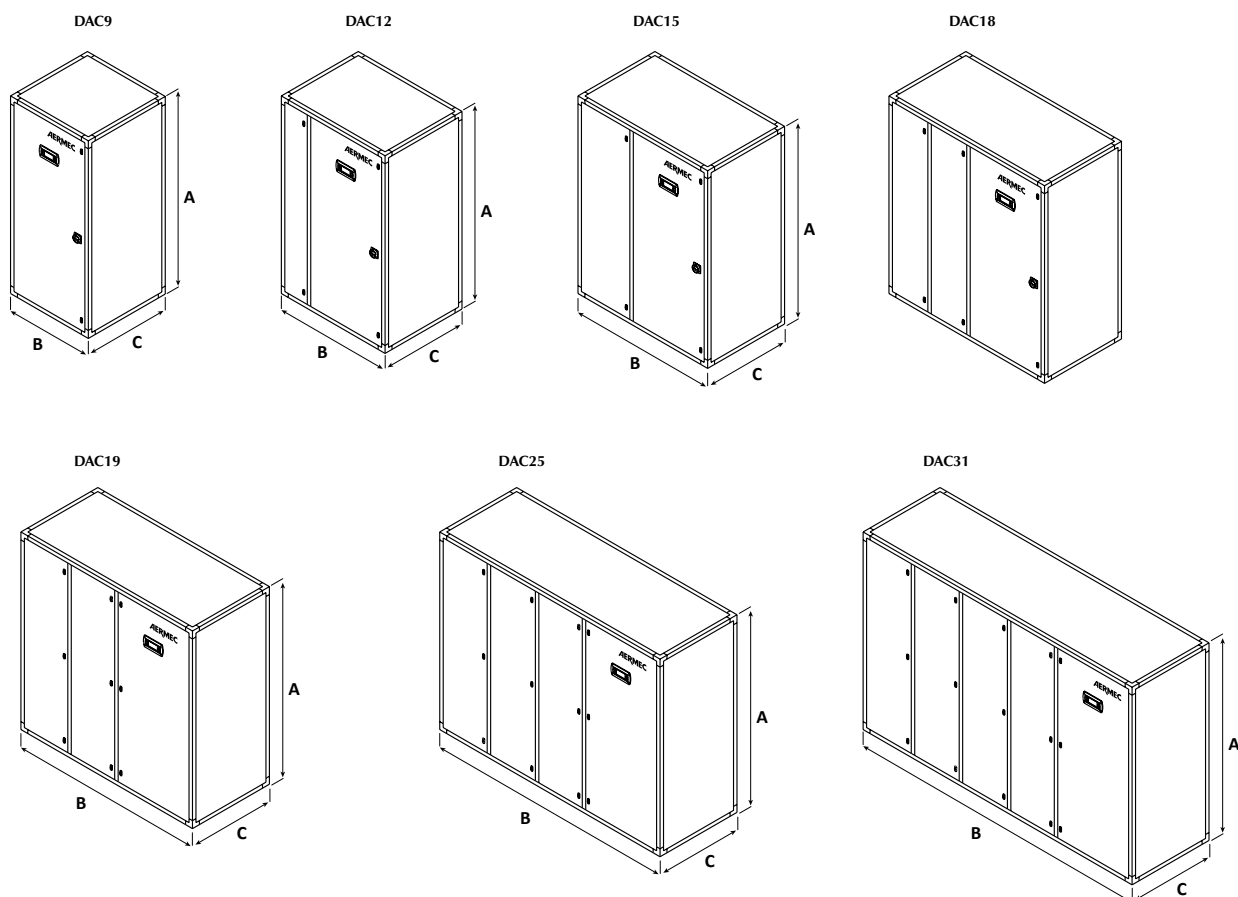
W2F0



"Dual cool" configuration which couples to the water-condensed direct expansion circuit a free-cooling circuit. When the outdoor temperature is sufficiently low, the regulation occurs on the 3-way valve deviating the glycol-solution from the plate heat exchanger to the free-cooling coil, disabling in this way the compressors.

DIMENSIONS

DAC		VERSIONS	MOD.	U.M.	09	12	15	18	19	25	31
Height	A	X-W	D	mm	1980	1980	1980	1980	1980	1980	1980
Width	B	X-W	D	mm	900	1200	1500	1800	1985	2549	3113
Depth	C	X-W	D	mm	890	890	890	890	890	890	890

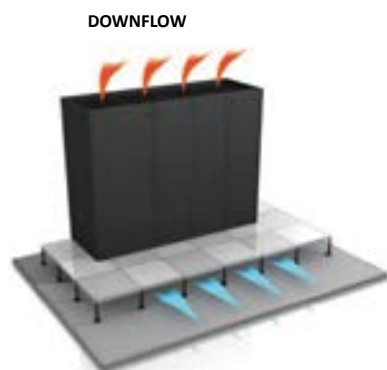


DAC

06/35

R410A

Precision Air Conditioning units:
C cooled water
 Cooling capacity 6÷200kW



Coils DAC_N-R



Coils DAC_D



- DUCTABLE PRECISION AIR CONDITIONERS
- DEDICATED TO STRUCTURES FOR TELECOMMUNICATIONS, COMPUTER ROOMS, DATA CENTERS, STERILIZED ROOMS AND LABORATORIES
- POSSIBILITY OF TOTAL CONTROL OF TEMPERATURE, HUMIDIFICATION, DEHUMIDIFICATION, AFTER HEATING AND FILTRATION

FEATURES

MODELS

- **DAC_D** down flow

VERSIONS

- **DAC_C** cooled water

FEATURES

The cooled water Precision Air Conditioning units DAC are designed for precision air conditioning of technological rooms characterized from elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required. Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.

STRUCTURE

The structure is composed by a painted aluminium frame with black aluminium angles and removable panels made of painted plate galvanized with epoxy

powders, which can grant a lasting finish.

The standard supplied unit is of colour grey-black (RAL 7021). The colour light grey (RAL 7035) is optional.

COOLED WATER COIL

The finned pack cooling coil is with internally lined copper pipes and aluminium fins blocked through mechanical expansion of pipes. The fins are coated with hydrophilic film which guarantees a successful removal of water drops from the surface and permits to increase the coils's performances.

Modulating 3-way valve is standard supplied.

"EC" FANS

Centrifugal fans with back curved blades (plug-fan) with EC motor directly coupled with electronic control to minimize electric consumption and sounds emissions.

FILTERS

Filters with corrugated separator, class of efficiency G4 (according to EN 779).

There are available as optional high efficiency filters with pre-filters, class G3+F6.

ELECTRONIC REGULATION

The microprocessor regulation permits to visualize: return air temperature, air temperature humidity (optional), condensation pressure (optional) and cooled coil temperature and to regulate the load on return air. The microprocessor manages also the working alarms.

Possibility of interfacing with supervision system (there are different communications protocols available, ModBus, BACnet...). Visualisation of all working parameters in 4 languages.

EC FANS - PLUG-FAN



HUMIDIFIER "ACCESSORY"



2-WAY VALVE "STANDARD"



3-WAY VALVE "ACCESSORY"



ACCESSORIES

Wide range of accessories, which can be chosen by using the selection programme, that permits also a real time-fast dimensioning of the units.

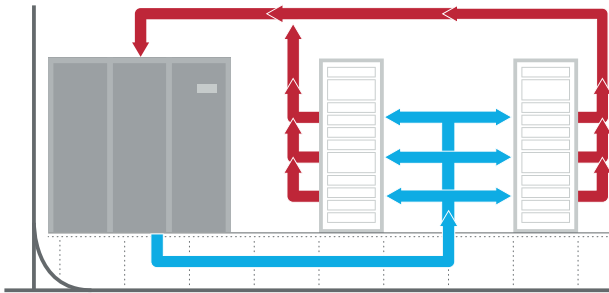
CONFIGURATOR

Field	DESCRIPTION
1, 2, 3	DAC
4	FRAME VERSIONS N Narrow (depth 600mm) R Regular (depth 890mm) D Dedicated
5, 6	FRAME 06, 09, 12, 15 18, 22, 25, 31, 35
7	MODEL D down flow
8, 9, 10	SIZES 085÷255
11	CIRCUIT 1 C cooled water
12	COIL CIRCUIT 1 0 Without Circuit 1 (only versions N-R) H High capacity (only versions R-D) L Low capacity (only versions R-D)
13	CIRCUIT 2 0 Without Circuit 2 C cooled water
14	COIL CIRCUIT 2 0 Without Circuit 2 (only versions N-R) H High capacity (only versions R-D) L Low capacity (only versions R-D)
15	POWER SUPPLY 0 400V/3/50Hz

DAC FRAME	FRAME VERSIONS		
	N	R	D
06	•		
09	•	•	
12	•	•	
15		•	
18		•	•
22			•
25			•
31			•
35			•

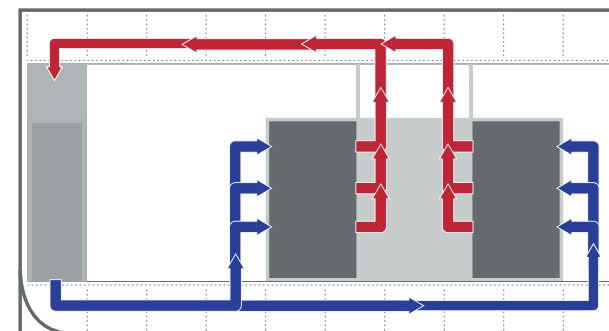
• Possible configurations

OPEN PASSAGES



In low density's applications (< 5 kW/rack) this configuration permits to distribute the air in front of racks, without having an appreciable mixing between cold air and hot air flows, as happens instead in rooms with a traditional configuration. This is an easy and flexible solution, because it permits to change rapidly, if necessary, the room's layout.

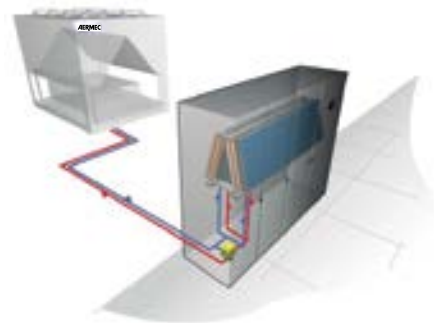
CLOSED PASSAGES



When power density in the server room grows, a solution with open passages is no more able to avoid mixing between hot and cold air flows. For high-medium power density applications (from 6 to 20 kW/rack) it must be used the solution with closed passages. The reduction through hot and cold passages avoids the risk of any mixing between the two air flows, ensuring to the server the needed cold air and increasing the global efficiency of the system.

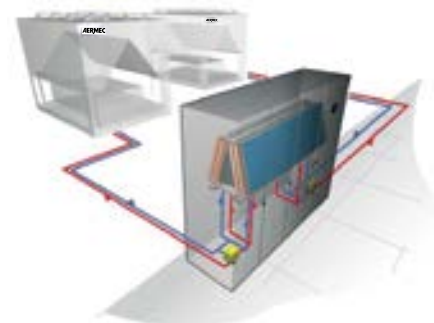
CONFIGURATIONS

C000



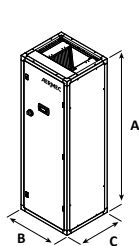
When cooled water monocircuit system is preferred, hot air of the room is aspirated through the efficient cooling coil of Precision Air Conditioning C000 and the heat is transferred to a cooled water system. Controlling the regulation 2-way or 3-way valve, the smart microprocessor Airetronix can reach a precise control of temperature and humidity.

C0C0

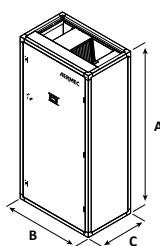


In the system C0C0, the cooling coils are divided into two independent systems, each of them with a modulating 3-way valve, managing in this way the cooling from two separate chillers. To be on the safe side, the double-circuit-configuration C0C0 offers redundancy 2N.

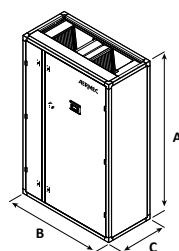
DIMENSIONS



DAC_N_06_C

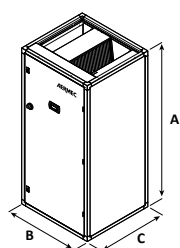


DAC_N_09_C

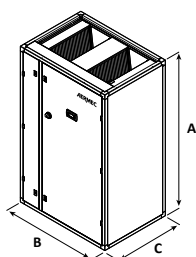


DAC_N_12_C

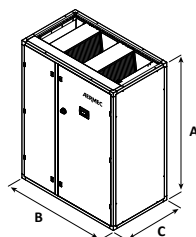
DAC_N		U.M.	06	09	12
Height	A	mm	1980	1980	1980
Width	B	mm	684	963	1242
Depth	C	mm	600	600	600



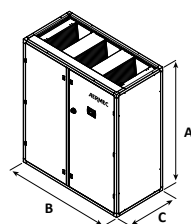
DAC_R_09_C



DAC_R_12_C

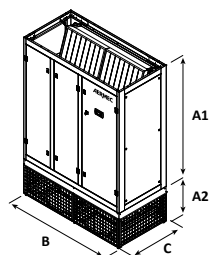


DAC_R_15_C

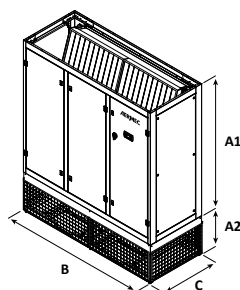


DAC_R_18_C

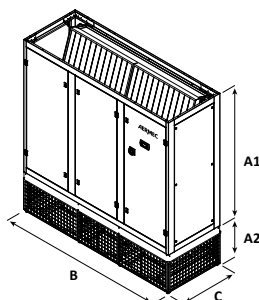
DAC_R		U.M.	09	12	15	18
Height	A	mm	1980	1980	1980	1980
Width	B	mm	963	1242	1521	1800
Depth	C	mm	890	890	890	890



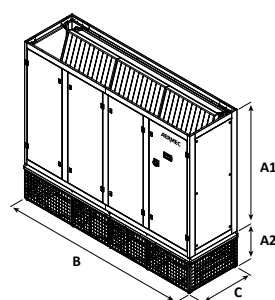
DAC_D_18_C



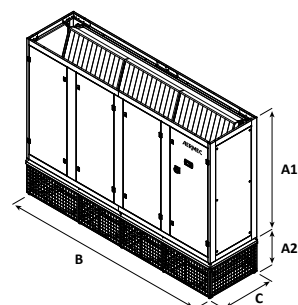
DAC_D_22_C



DAC_D_25_C



DAC_D_31_C



DAC_D_35_C

DAC_D		U.M.	18	22	25	31	35
Height	A1	mm	1980	1980	1980	1980	1980
	A2	mm	600 minimum	600 minimum	600 minimum	600 minimum	600 minimum
Width	B	mm	1800	2200	2500	3100	3500
Depth	C	mm	890	890	890	890	890

SAP

Buffer tank with capacity from 75 to 3500 litres



Features

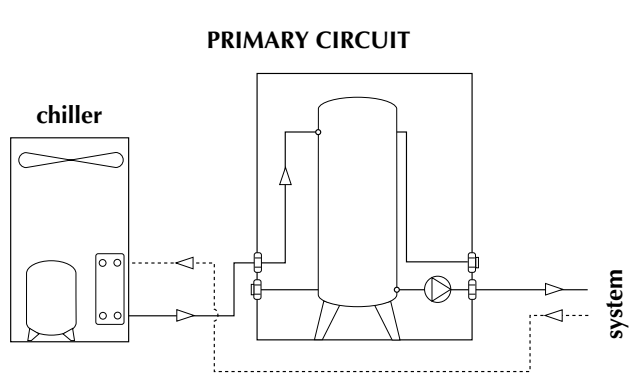
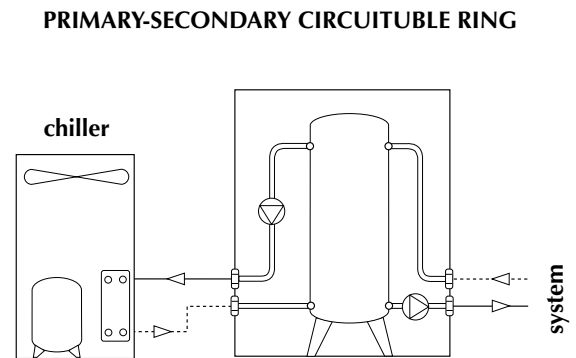
- Buffer tank with pump fully assembled to be used together with water chillers. Hydraulic connections to be site installed
- Units dimensionally compatible with Aermec NBW, NRA, R, RV water chillers, but also compatible with any chiller
- Steel enclosure with epoxy powder coating for the maximum resistance 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.

SAP	Accessory compatibility			
	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.

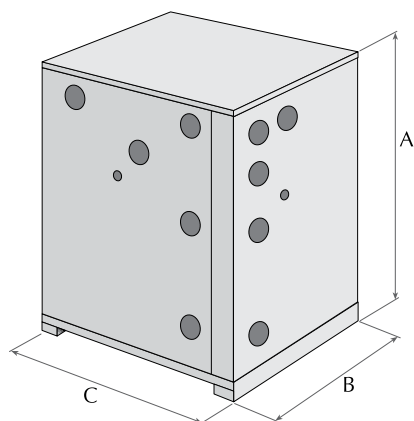
S = pump and standby pump set.

Z = without pump.

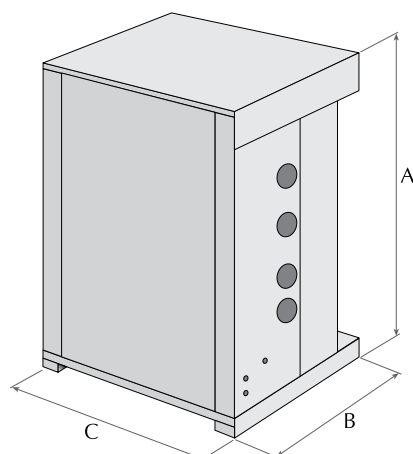
The combinations shown in the table are the only possible ones.

A large number of different flow rate/pressure combinations are available. Refer to the technical manual.

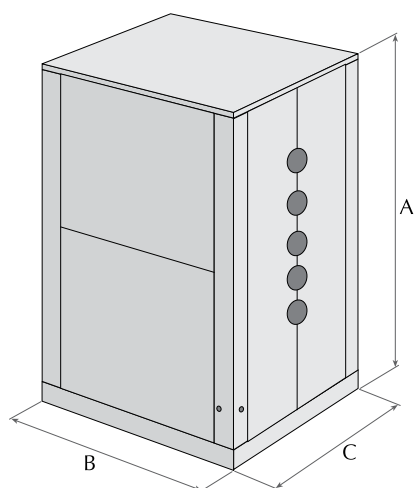
SAP 0075 - 0150



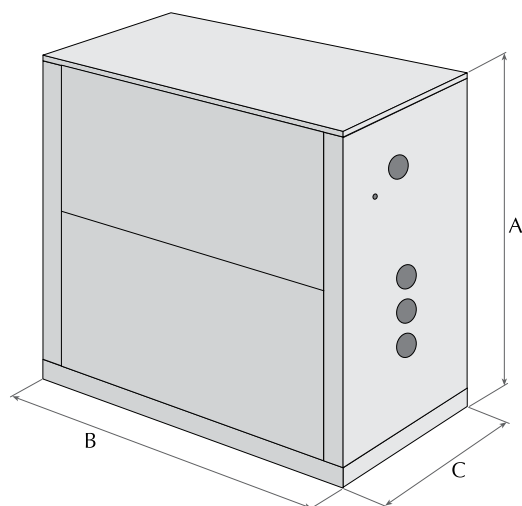
SAP 0300 - 0500



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

TRA

Cooling towers with capacities from 49.53 up to 1084.88 kW



Features

- Available in 17 different sizes
- **TRA from 50 up to 750 silenced and Inspection window standard**
- **TRA from 850 up to 1100 standard TRA from 850 up to 1100 silenced (L) All with inspection door to a crawl Series**
- Entirely built of fibre-glass reinforced resin to avoid corrosion problems with surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather
- Limited to the three largest sizes (TRA 850, 950 and 1100) the bearing structure is made of hot galvanised steel with 22mm thick fibre-glass 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.

TRA	Compatibility of accessories																
	50	70	90	110	130	170	200	240	300	400	500	550	600	750	850	950	1100
RT 11 (1 kW)	✓	✓	✓	✓	✓												
RT 12 (2 kW)						✓	✓	✓	✓								
RT 13 (3 kW)										✓	✓	✓					
RT 15 (5 kW)													✓	✓	✓	✓	
RT 17 (7.5 kW)																	✓

N.B. = In the case of RT accessories, the number between brackets indicates the capacity of the heater element.

* = All the accessories and/or variants must in all cases be specified when the order is placed.

Technical data

Mod. TRA		50	70	90	110	130	170	200	240	300
Capacity	kW	49,53	69,06	88,60	107,44	125,58	168,14	197,67	242,09	302,33
Air flow rate	m ³ /h	4500	4500	8100	8100	8100	12600	12600	18100	18100
Water flow rate	l/h	7100	9900	12700	15400	18000	24100	28330	34700	43300
Pressure drops	kPa	42	32	52	32	42	28	35	23	40
Motor power	kW	0,55	0,75	0,75	0,75	1,1	1,1	1,5	1,5	2,2
Motor poles	n.	4	4	4	4	6	6	6	6	6
Motor poles (double polarity)	n.	4/8	4/8	4/8	4/8	6/12	6/12	6/8	6/8	6/8
Fans	n.	1	1	1	1	1	1	1	1	1
Nozzles	n.	1	1	1	1	1	1	1	4	4
♪ Sound pressure	dB (A)	52	52	54	54	54	54	54	55	55

Mod. TRA		400	500	550	600	750	850	950	1100
Capacity	kW	405,35	488,37	574,19	604,88	767,44	856,74	941,86	1084,88
Air flow rate	m ³ /h	28350	28350	36000	45350	45350	58000	58000	67000
Water flow rate	l/h	58100	70000	82300	86700	110000	122800	135000	155500
Pressure drops	kPa	28	40	55	30	48	49	25	32
Motor power	kW	2,2	4	5,5	4	5,5	5,5	5,5	7,5
Motor poles	n.	6	6	6	6	6	8	8	8
Motor poles (double polarity)	n.	6/8	6/12	6/12	6/12	8/16	8/16	8/16	8/16
Fans	n.	1	1	1	1	1	1	1	1
Nozzles	n.	4	4	4	9	9	16	16	16
♪ Sound pressure	dB (A)	57	57	58	61	61	62	62	64
♪ Sound pressure (silenced version)	dB (A)						56	56	57

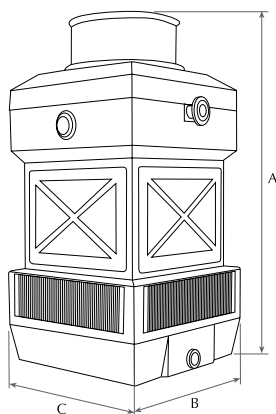
* = Sizes from 50 to 750 are only muted.

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

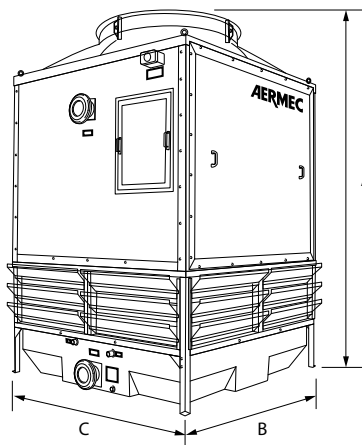
Performance values refer to the following conditions:

- ♪ Sound pressure measured in free field conditions at distance of 10 m with direction factor = 2.
- air inlet temperature 23.5 °C W.B.;
- water inlet temperature 35 °C;
- water outlet temperature 29 °C

Dimensions (mm)



TRA 50-750



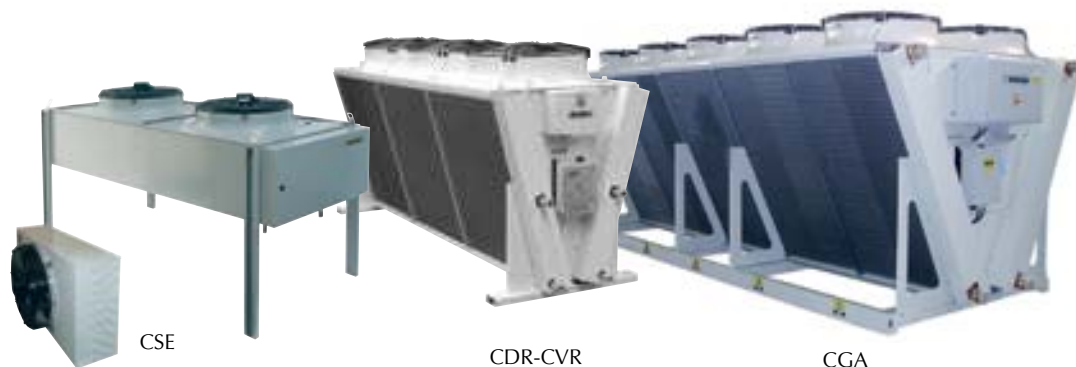
TRA 850-1100
TRA 850L-1100L

Mod. TRA		50	70	90	110	130	170	200	240	300	400
Height	A	2110	2110	2595	2595	2595	2800	2800	2860	2860	3140
Width	B	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Depth	C	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Weight	kg	75	75	85	95	95	170	170	210	210	410

Mod. TRA		500	550	600	750	850	850L	950	950L	1100	1100L
Height	A	3140	3380	3450	3450	3650	3900	3650	3900	3650	3900
Width	B	1740	1900	2100	2100	2030	2030	2030	2030	2360	2360
Depth	C	1740	2100	2300	2300	2360	2360	2360	2360	2360	2360
Weight	kg	410	500	555	580	850	850	815	815	915	915

CSE – CDR – CVR – CGA

Air remote condensers



Characteristics

SCSE 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

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

SERIE CGA

Caratteristiche generali

- Exchangers arranged in a V
- low noise
- Two rows of fans, diameter 800mm
- From 6 to 12 fans

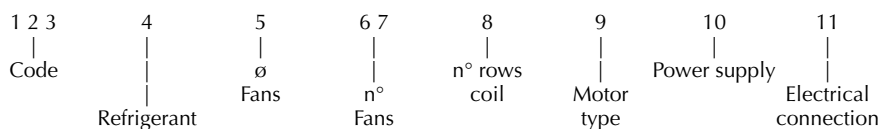
Construction characteristics

- 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
 - (ST) silenced
 - (ET) extra silenced.
 - (CT) Electronically commutated brushless motor

Choice of unit

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

Field configurator:



Size:

CSE-CVR-CVA-CGA

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 condenserless 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	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW(1)	Condenser	N°Condenser for chiller	Heating capacity disposed kW(2)	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
WRL025E	1/1	R410A	8	CSEX3014BM°	1	8	66	34	37	230V/1					•		
				CSEX5013ETY	1	10	57	25	28	400V/3			•				
WRL030E	1/1	R410A	9	CSEX3022BM°	1	13	69	37	40	230V/1					•		
				CSEX5013ETY	1	10	57	25	28	400V/3			•				
WRL040E	1/1	R410A	13	CSEX3022BM°	1	13	69	37	40	230V/1					•		
				CSEX5013ETD	1	13	60	28	31	400V/3			•				
WRL050E	1/1	R410A	17	CSEX5013STD	1	17	65	34	37	400V/3			•				
				CSEX5015STY	1	17	58	26	29	400V/3			•				
WRL070E	1/1	R410A	21	CSEX5013BTD	1	23	76	45	48	400V/3			•				
				CSEX5014BTY	1	22	70	39	42	400V/3			•				
WRL080E	1/1	R410A	24	CSEX5014BTD	1	26	76	45	48	400V/3			•				
				CSEX6013STD	1	25	66	35	38	400V/3			•				
WRL100E	2/1	R410A	33	CSEX6014BTD	1	36	74	43	46	400V/3			•				
				CSEX5023STD	1	35	68	37	40	400V/3			•				
WRL140E	2/1	R410A	42	CSEX5023BTD	1	46	79	48	51	400V/3			•				
				CSEX5024BTY	1	44	73	42	45	400V/3			•				
WRL160E	2/1	R410A	48	CSEX5025STD	1	43	68	37	40	400V/3			•				
				CSEX5024BTD	1	54	79	48	51	400V/3			•				
WRL180E	2/1	R410A	57	CSEX6023STD	1	50	69	38	41	400V/3			•				
				CSEX5025BTD	1	59	79	48	51	400V/3			•				
WRL200E	2/1	R410A	74	CSEX8013STD	1	60	70	39	42	400V/3			•				
				CSEX8014BTD	1	81	77	45	48	400V/3			•				
				CSEX8014CT° 810	2	75	74	43	46	400V/3						•	
				CSEX6033STD	1	75	71	39	42	400V/3			•				
				CSEX6043ETD	1	75	62	30	33	400V/3			•				

Power to the condenser heat disposed:

Water temperature (in/out)12°C/7°C; External air temperature 35°C

Heating capacity disposed:

External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering

Note: For more information contact us

Combinations

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW ⁽¹⁾	Condenser	N°Condenser for chiller	Heating capacity disposed kW ⁽²⁾	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
WRL300E	2/1	R410A	85	CSEX8014CT° 1020	1	89	79	48	51	400V/3							
				CSEX6034BTY	1	93	74	42	45	400V/3			•				
WRL400E	2/1	R410A	97	CSEX6034STD	1	85	71	39	42	400V/3			•				
				CSEX6034BTD	1	108	79	48	51	400V/3			•				
WRL500E	2/1	R410A	110	CSEX8023STY	1	102	70	38	41	400V/3			•				
				CSEX8023STD	1	122	73	42	45	400V/3			•				
WRL550E	2/1	R410A	146	CSEX8023CT° 600	1	110	71	40	43	400V/3						•	
				CVRX8023STY	1	118	70	38	42	400V/3			•				
WRL600E	2/1	R410A	168	CSEX8023BTD	1	148	80	48	51	400V/3			•				
				CVRX8023BTY	1	147	75	43	46	400V/3	• (1)		•				
WRL650E	2/1	R410A	191	CSEX8033STY	1	154	72	40	43	400V/3			•				
				CVRX8023BTD	1	171	80	48	51	400V/3	• (1)		•				
NXW0500E	3/2	R410A	125	CSEX8033STD	1	184	75	43	46	400V/3			•				
				CVRX8024BTD	1	177	72	40	43	400V/3	• (1)		•				
NXW0550E	3/2	R410A	135	CVRX8024BTY	1	191	80	48	51	400V/3			•				
				CSEX8033BTY	1	190	76	45	48	400V/3			•				
NXW0600E	4/2	R410A	166	CSEX8034STD	1	201	75	43	46	400V/3			•				
				CSEX8043STY	1	203	73	41	44	400V/3	• (1)		•				
NXW650E	4/2	R410A	186	CSEX8024BTD	1	166	80	48	51	400V/3		• (1)		•			
				CVRX8024BTY	1	160	75	43	46	400V/3				•			
NXW700E	4/2	R410A	211	CSEX8034STY	1	163	72	40	43	400V/3		• (1)		•			
				CVRX8023BTD	1	171	80	48	51	400V/3				•			
NXW750E	4/2	R410A	249	CSEX8033STD	1	184	75	43	46	400V/3		• (1)		•			
				CVRX8033STY	1	177	72	40	43	400V/3				•			
NXW800E	4/2	R410A	287	CVRX8023BTD	1	171	80	48	51	400V/3				•			
				CSEX8033STD	1	184	75	43	46	400V/3	• (1)		•				
NXW0900E	4/2	R410A	327	CVRX8033STY	1	177	72	40	43	400V/3				•			
				CVRX8024BTD	1	191	80	48	51	400V/3				•			
NXW1000E	4/2	R410A	364	CSEX8033BTY	1	190	76	45	48	400V/3		• (1)		•			
				CSEX8034STD	1	201	75	43	46	400V/3		• (1)		•			
NXW1250E	4/2	R410A	397	CVRX8034STY	1	188	72	40	43	400V/3				•			
				CSEX8033BTD	1	223	82	50	53	400V/3		• (1)		•			
				CVRX8033BTY	1	220	76	45	48	400V/3				•			
				CVRX8034STD	1	229	75	43	46	400V/3				•			
				CSEX8044STY	1	215	73	41	44	400V/3				•			
				CSEX8034BTD	1	250	82	50	53	400V/3		• (1)		•			
				CSEX8043BTY	1	252	78	46	49	400V/3				•			
				CSEX8044STD	1	266	76	44	47	400V/3				•			
				CVRX8044STY	1	251	73	42	45	400V/3				•			
				CSEX8043BTD	1	296	83	51	54	400V/3				•			
				CVRX8043BTY	1	293	78	46	49	400V/3				•			
				CSEX8063STY	1	307	75	43	46	400V/3				•			
				CVRX8053STY	1	295	74	42	45	400V/3				•			
				CSEX8044BTD	1	331	83	51	54	400V/3				•			
				CVRX8053STD	1	350	77	46	49	400V/3				•			
				CSEX8063CT° 600	1	333	76	44	47	400V/3							•
				CVRX8064CT° 460	1	329	70	39	42	400V/3							•
				CVRX8044BTD	1	381	83	51	54	400V/3				•			
				CSEX8063STD	1	368	78	46	49	400V/3				•			
				CVRX8064STY	1	384	75	43	46	400V/3				•			
				CVRX8064CT° 530	1	373	73	42	45	400V/3							•
				CVRX8074CT° 460	1	384	71	39	42	400V/3							•
				CSEX8063BTD	1	447	85	53	56	400V/3				•			
				CVRX8053BTD	1	426	84	52	55	400V/3				•			
				CSEX8064STD	1	402	78	46	49	400V/3				•			
				CDRX8083STY	1	407	76	44	47	400V/3				•			
				CVRX8073CT° 530	1	406	74	42	45	400V/3							•
				CDRX8103CT° 460	1	448	72	40	43	400V/3							•
				CDRX8104CT° 390	1	410	69	37	40	400V/3							•

Power to the condenser heat disposed:

Water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating capacity disposed:

External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering

Note: For more information contact us

Combinations

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW(1)	Condenser	N°Condenser for chiller	Heating capacity disposed kW(2)	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
NXW1400E	4/2	R410A	430	CSEX8063BTD	1	447	85	53	56	400V/3				•			
				CVRX8054BTD	1	477	84	52	55	400V/3				•			
				CVRX8063BTY	1	443	79	48	51	400V/3				•			
				CVRX8064STD	1	463	78	46	49	400V/3				•			
				CVRX8074STY	1	447	75	44	47	400V/3				•			
				CVRX8074CT° 530	1	435	74	42	45	400V/3							•
WSA0701E	1/1	R134a	197	CDRX8103CT° 460	1	448	72	40	43	400V/3							•
				CSE°8034BTD	1	215	82	50	53	400V/3			•				
				CSE°8043STD	1	210	76	44	47	400V/3	• (1)		•				
				CVR°8043STY	1	206	73	42	45	400V/3	• (1)		•				
WSA0801E	1/1	R134a	232	CVR°8043CT° 530	1	199	71	40	43	400V/3	• (1)						
				CSE°8043BTD	1	252	83	51	54	400V/3	• (1)		•				
				CVR°8034BTD	1	247	82	50	53	400V/3	• (1)		•				
				CSE°8044BTY	1	237	78	46	49	400V/3	• (1)		•				
				CSE°8063STY	1	267	75	43	46	400V/3	• (1)		•				
				CVR°8053STY	1	257	74	42	45	400V/3	• (1)		•				
WSA0901E	1/1	R134a	257	CVR°8053CT° 530	1	249	72	41	44	400V/3	• (1)						•
				CSE°8044BTD	1	285	83	51	54	400V/3	• (1)		•				
				CVR°8044STD	1	266	76	45	48	400V/3	• (1)		•				
				CSE°8063STY	1	267	75	43	46	400V/3	• (1)		•				
				CVR°8053STY	1	257	74	42	45	400V/3	• (1)		•				
				CVR°8053CT° 530	1	249	72	41	44	400V/3	• (1)						•
WSA1101E	1/1	R134a	320	CSE°8063CT° 530	1	263	73	41	44	400V/3	• (1)						•
				CVR°8063CT° 460	1	271	70	39	42	400V/3	• (1)						•
				CVR°8044BTD	1	329	83	51	54	400V/3	• (1)		•				
				CSE°8063BTY	1	328	79	47	50	400V/3	• (1)		•				
				CVR°8064STY	1	333	75	43	46	400V/3	• (1)		•				
				CVR°8064CT° 530	1	324	73	42	45	400V/3	• (1)						•
WSA1402E	2/2	R134a	393	CVR°8074CT° 460	1	333	71	39	42	400V/3	• (1)						•
				CSE°8064BTD	1	430	85	53	56	400V/3				•			
				CVR°8054BTD	1	412	84	52	55	400V/3				•			
				CVR°8064STD	1	402	78	46	49	400V/3				•			
				CDR°8103CT° 530	1	436	75	44	47	400V/3							•
				CDR°8104CT° 460	1	413	72	40	43	400V/3							•
WSA1602E	2/2	R134a	460	CVR°8064BTD	1	495	85	53	56	400V/3				•			
				CVR°8074STD	1	469	78	47	50	400V/3				•			
				CDR°8104STY	1	467	77	45	48	400V/3				•			
				CGA°1103CT° 360	1	506	75	43	46	400V/3							•
				CVR°8073BTD	1	511	85	54	57	400V/3				•			
				CVR°8074BTD	1	577	85	54	57	400V/3				•			
WSA1802E	2/2	R134a	517	CDR°8103STD	1	526	80	48	51	400V/3				•			
				CGA°1083STY	1	534	78	46	49	400V/3				•			
				CGA°1104CT° 360	1	528	75	43	46	400V/3							•
				CDR°8103BTD	1	630	87	55	58	400V/3				•			
				CDR°8104BTY	1	593	82	50	53	400V/3				•			
				CGA°1083STY	1	534	78	46	49	400V/3				•			
WSA2202E	2/2	R134a	578	CGA°1123CT° 360	1	607	76	44	47	400V/3							•
				CVR°8073CT° 460	2	316	71	39	42	400V/3							•
				CDR°8103CT° 320	2	291	65	33	36	400V/3							•
				CDR°8104BTD	1	712	87	55	58	400V/3				•			
				CGA°1083BTY	1	668	88	56	59	400V/3				•			
				CDR°8104CT° 810	1	656	84	52	55	400V/3							•
WSA2202E	2/2	R134a	639	CGA°1103STY	1	703	79	47	50	400V/3				•			
				CGA°1124CT° 360	1	633	76	44	47	400V/3							•
				CVR°8074CT° 460	2	333	71	39	42	400V/3							•
				CDR°8103CT° 390	2	342	69	37	40	400V/3							•

- **Power to the condenser heat disposed:**
Water temperature (in/out) 12°C/7°C; External air temperature 35°C
- **Heating capacity disposed:**
External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering
Note: For more information contact us

Combinations

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW(l)	Condenser	N°Condenser for chiller	Heating capacity disposed kW(2)	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe	
WSA2502E	2/2	R134a	722	CGA°1083BTD	1	731	92	60	63	400V/3				•				
				CDR°8104BTD	1	712	87	55	58	400V/3				•				
				CDR°8104CT° 950	1	735	87	55	58	400V/3						•		
				CGA°1104STY	1	751	79	47	50	400V/3				•				
				CVR°8074CT° 530	2	378	74	42	45	400V/3	• (1)					•		
WSA2802E	2/2	R134a	788	CDR°8103CT° 460	2	390	72	40	43	400V/3						•	•	
				CDR°8104CT° 1020	1	772	89	57	60	400V/3							•	
				CGA°1084BTD	1	860	92	60	63	400V/3				•				
				CGA°1103CT° 660	1	790	88	56	59	400V/3							•	
				CGA°1123STY	1	843	80	48	51	400V/3				•				
WSB0701E	1/1	R134a	190	CDR°8104CT° 460	2	413	72	40	43	400V/3							•	
				CSE°8033BTD	1	190	82	50	53	400V/3				•				
				CVR°8033BTY	1	190	76	45	48	400V/3	• (1)			•				
				CVR°8033STD	1	182	75	43	46	400V/3	• (1)			•				
				CVR°8034STD	1	199	75	43	46	400V/3	• (1)			•				
				CVR°8043STY	1	206	73	42	45	400V/3	• (1)			•				
				CVR°8043CT° 530	1	199	71	40	43	400V/3	• (1)						•	
WSB0801E	1/1	R134a	220	CVR°8053CT° 390	1	194	66	34	37	400V/3	• (1)						•	
				CSE°8043BTD	1	252	83	51	54	400V/3	• (1)			•				
				CVR°8034BTD	1	247	82	50	53	400V/3	• (1)			•				
				CSE°8044STD	1	231	76	44	47	400V/3	• (1)			•				
				CVR°8053STY	1	257	74	42	45	400V/3	• (1)			•				
WSB0901E	1/1	R134a	250	CVR°8053CT° 460	1	222	69	38	41	400V/3	• (1)						•	
				CSE°8043BTD	1	252	83	51	54	400V/3	• (1)			•				
				CVR°8043BTY	1	254	78	46	49	400V/3	• (1)			•				
				CVR°8053STY	1	257	74	42	45	400V/3	• (1)			•				
				CVR°8063CT° 460	1	271	70	39	42	400V/3	• (1)						•	
WSB1101E	1/1	R134a	307	CVR°8044BTD	1	329	83	51	54	400V/3	• (1)			•				
				CSE°8063STD	1	318	78	46	49	400V/3	• (1)			•				
				CVR°8063STY	1	313	75	43	46	400V/3	• (1)			•				
				CVR°8073CT° 460	1	316	71	39	42	400V/3	• (1)						•	
WSB1402E	2/2	R134a	379	CSE°8063BTD	1	381	85	53	56	400V/3				•				
				CVR°8063BTY	1	383	79	48	51	400V/3				•				
				CVR°8074STY	1	389	75	44	47	400V/3				•				
WSB1602E	2/2	R134a	436	CDR°8103CT° 460	1	390	72	40	43	400V/3							•	
				CVR°8063BTD	1	438	85	53	56	400V/3						•		
				CVR°8073BTY	1	447	80	49	52	400V/3						•		
				CDR°8103STY	1	441	77	45	48	400V/3						•		
				CGA°1103CT° 360	1	506	75	43	46	400V/3								•
				CVR°8053CT° 460	2	222	69	38	41	400V/3	• (1)							•
WSB1802E	2/2	R134a	499	CVR°8063CT° 390	2	237	66	35	38	400V/3	• (1)						•	
				CVR°8073BTD	1	511	85	54	57	400V/3						•		
				CDR°8103STD	1	526	80	48	51	400V/3						•		
				CGA°1083STY	1	534	78	46	49	400V/3						•		
				CGA°1103CT° 360	1	506	75	43	46	400V/3								•
				CVR°8073CT° 390	2	276	67	36	39	400V/3	• (1)						•	
WSB2202E	2/2	R134a	556	CDR°8103CT° 320	2	291	65	33	36	400V/3							•	
				CVR°8074BTD	1	577	85	54	57	400V/3						•		
				CDR°8104STD	1	578	80	48	51	400V/3						•		
				CGA°1084STY	1	589	78	46	49	400V/3						•		
				CGA°1123CT° 360	1	607	76	44	47	400V/3								•
				CVR°8064CT° 460	2	285	70	39	42	400V/3	• (1)							•
WSB2202E	2/2	R134a	618	CVR°8074CT° 390	2	286	67	36	39	400V/3	• (1)						•	
				CDR°8103CT° 320	2	291	65	33	36	400V/3								•
				CDR°8103BTD	1	630	87	55	58	400V/3						•		
				CDR°8104CT° 810	1	656	84	52	55	400V/3								•
				CGA°1103STY	1	703	79	47	50	400V/3						•		
				CGA°1124CT° 360	1	633	76	44	47	400V/3								•
WSB2202E	2/2	R134a	618	CVR°8073CT° 460	2	316	71	39	42	400V/3	• (1)						•	
				CDR°8103CT° 390	2	342	69	37	40	400V/3								•
																		•

Power to the condenser heat disposed:

Water temperature (in/out)12°C/7°C; External air temperature 35°C

Heating capacity disposed:

External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering

Note: For more information contact us

Combinations

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW ⁽¹⁾	Condenser	N°Condenser for chiller	Heating capacity disposed kW ⁽²⁾	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
WSB2502E	2/2	R134a	705	CDR°8104BTD	1	712	87	55	58	400V/3			•				
				CGA°1103STY	1	703	79	47	50	400V/3			•				
				CVR°8073CT° 530	2	353	74	42	45	400V/3	• (1)					•	
				CDR°8103CT° 460	2	390	72	40	43	400V/3							•
				CDR°8104CT° 390	2	356	69	37	40	400V/3							•
WSB2802E	2/2	R134a	772	CGA°1084BTD	1	860	92	60	63	400V/3				•			
				CDR°8104CT° 1020	1	772	89	57	60	400V/3				•			•
				CGA°1123STY	1	843	80	48	51	400V/3				•			
				CVR°8074STY	2	389	75	44	47	400V/3	• (1)		•				
				CDR°8103CT° 460	2	390	72	40	43	400V/3							•
WF2512E	2/2	R134a	671	CDR°8104BTD	1	712	87	55	58	400V/3				•			
				CGA°1103STY	1	703	79	47	50	400V/3				•			
				CVR°8073CT° 530	2	353	74	42	45	400V/3	• (1)					•	
				CDR°8103CT° 390	2	342	69	37	40	400V/3							•
WF2812E	2/2	R134a	764	CDR°8104CT° 1020	1	772	89	57	60	400V/3							•
				CGA°1123STY	1	843	80	48	51	400V/3				•			
				CVR°8074STY	2	389	75	44	47	400V/3	• (1)		•				
				CDR°8103CT° 460	2	390	72	40	43	400V/3							•
WF3212E	2/2	R134a	917	CGA°1103BTD	1	991	93	61	64	400V/3				•			
				CGA°1104BTY	1	1003	89	57	60	400V/3				•			
				CGA°1123STY	1	843	80	48	51	400V/3				•			
				CDR°8104CT° 530	2	467	75	44	47	400V/3							•
				CGA°1103CT° 360	2	506	75	43	46	400V/3							•
WF3612E	2/2	R134a	1034	CGA°1104BTD	1	1137	93	61	64	400V/3				•			
				CGA°1123BTY	1	1076	90	58	61	400V/3				•			
				CGA°1124CT° 660	1	1049	89	57	60	400V/3							•
				CDR°8103STD	2	526	80	48	51	400V/3				•			
				CGA°1083STY	2	534	78	46	49	400V/3				•			
				CGA°1104CT° 360	2	528	75	43	46	400V/3							•
WF4212E	2/2	R134a	1168	CGA°1123BTD	1	1190	94	62	65	400V/3				•			
				CGA°1124BTY	1	1203	90	58	61	400V/3				•			
				CDR°8104BTY	2	593	82	50	53	400V/3				•			
				CGA°1084STY	2	589	78	46	49	400V/3				•			
				CGA°1123CT° 360	2	607	76	44	47	400V/3							•
WF4812E	2/2	R134a	1319	CGA°1124BTD	1	1365	94	62	65	400V/3				•			
				CDR°8104BTD	2	712	87	55	58	400V/3				•			
				CDR°8104CT° 880	2	696	86	54	57	400V/3							•
				CGA°1103STY	2	703	79	47	50	400V/3				•			
WF5612E	2/2	R134a	1479	CDR°8104CT° 1020	2	772	89	57	60	400V/3							•
				CGA°1084BTY	2	769	88	56	59	400V/3				•			
				CGA°1104STY	2	751	79	47	50	400V/3				•			
WF6412E	2/2	R134a	1627	CGA°1084BTD	2	860	92	60	63	400V/3				•			
				CGA°1103BTY	2	896	89	57	60	400V/3				•			
				CGA°1123STY	2	843	80	48	51	400V/3				•			
WF2512AE	2/2	R134a	707	CDR°8104BTD	1	712	87	55	58	400V/3				•			
				CGA°1103STY	1	703	79	47	50	400V/3				•			
				CVR°8073CT° 530	2	353	74	42	45	400V/3	• (1)					•	
				CDR°8103CT° 460	2	390	72	40	43	400V/3							•
WF2812AE	2/2	R134a	803	CDR°8104CT° 390	2	356	69	37	40	400V/3							•
				CGA°1084BTD	1	860	92	60	63	400V/3				•			
				CGA°1103BTY	1	896	89	57	60	400V/3				•			
				CGA°1123STY	1	843	80	48	51	400V/3				•			
WF3212AE	2/2	R134a	966	CDR°8104CT° 460	2	413	72	40	43	400V/3							•
				CGA°1103BTD	1	991	93	61	64	400V/3				•			
				CGA°1104BTY	1	1003	89	57	60	400V/3				•			
				CVR°8064BTD	2	495	85	53	56	400V/3				•			
				CVR°8074BTY	2	491	80	49	52	400V/3				•			
				CDR°8103STD	2	526	80	48	51	400V/3				•			
				CGA°1083STY	2	534	78	46	49	400V/3				•			
				CGA°1103CT° 360	2	506	75	43	46	400V/3							•

Power to the condenser heat disposed:

Water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating capacity disposed:

External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering

Note: For more information contact us

Combinations

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW ⁽¹⁾	Condenser	N°Condenser for chiller	Heating capacity disposed kW ⁽²⁾	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
WF3612AE	2/2	R134a	1087	CGA°1104BTD	1	1137	93	61	64	400V/3				•			
				CGA°1124BTY	1	1203	90	58	61	400V/3				•			
				CVR°8074BTD	2	577	85	54	57	400V/3				•			
				CDR°8104STD	2	578	80	48	51	400V/3				•			
				CGA°1084STY	2	589	78	46	49	400V/3				•			
WF4212AE	2/2	R134a	1227	CGA°1123CT° 360	2	607	76	44	47	400V/3							•
				CGA°1124BTD	1	1365	94	62	65	400V/3				•			
				CDR°8103BTD	2	630	87	55	58	400V/3				•			
				CDR°8104CT° 810	2	656	84	52	55	400V/3							•
				CGA°1103STY	2	703	79	47	50	400V/3				•			
WF4812AE	2/2	R134a	1386	CGA°1124CT° 360	2	633	76	44	47	400V/3							•
				CGA°1124CT° 960	1	1375	97	65	68	400V/3							•
				CDR°8104BTD	2	712	87	55	58	400V/3				•			
				CDR°8104CT° 880	2	696	86	54	57	400V/3							•
				CGA°1103STY	2	703	79	47	50	400V/3				•			
WF5612AE	2/2	R134a	1514	CDR°8104CT° 1020	2	772	89	57	60	400V/3							•
				CGA°1084BTY	2	769	88	56	59	400V/3				•			
				CGA°1123STY	2	843	80	48	51	400V/3				•			
WF6412AE	2/2	R134a	1678	CGA°1084BTD	2	860	92	60	63	400V/3				•			
				CGA°1103BTY	2	896	89	57	60	400V/3				•			
				CGA°1123STY	2	843	80	48	51	400V/3				•			
HWF2512E	2/2	R134a	659	CDR°8104BTD	1	712	87	55	58	400V/3				•			
				CDR°8104CT° 880	1	696	86	54	57	400V/3							•
				CGA°1103STY	1	703	79	47	50	400V/3				•			
				CVR°8053STY	2	257	74	42	45	400V/3	• (1)		•				
				CSE°8064CT° 460	2	248	70	38	41	400V/3	• (1)					•	
HWF2812E	2/2	R134a	751	CVR°8064CT° 390	2	246	66	35	38	400V/3	• (1)					•	
				CDR°8104CT° 1020	1	772	89	57	60	400V/3							•
				CGA°1084BTY	1	769	88	56	59	400V/3				•			
				CGA°1104STY	1	751	79	47	50	400V/3				•			
				CVR°8074CT° 530	2	378	74	42	45	400V/3	• (1)					•	
HWF3212E	2/2	R134a	885	CDR°8103CT° 460	2	390	72	40	43	400V/3							•
				CGA°1103BTY	1	896	89	57	60	400V/3				•			
				CGA°1124STY	1	901	80	48	51	400V/3				•			
				CDR°8104CT° 530	2	467	75	44	47	400V/3							•
				CGA°1103CT° 360	2	506	75	43	46	400V/3							•
HWF3612E	2/2	R134a	994	CGA°1103CT° 960	1	994	97	65	68	400V/3							•
				CGA°1104BTY	1	1003	89	57	60	400V/3	• (1)		•				
				CVR°8073BTD	2	511	85	54	57	400V/3				•			
				CDR°8103STD	2	526	80	48	51	400V/3				•			
				CGA°1083STY	2	534	78	46	49	400V/3				•			
HWF4212E	2/2	R134a	1154	CGA°1103CT° 360	2	506	75	43	46	400V/3							•
				CGA°1123BTD	1	1190	94	62	65	400V/3				•			
				CGA°1124BTY	1	1203	90	58	61	400V/3				•			
				CVR°8074BTD	2	577	85	54	57	400V/3	• (1)		•				
				CDR°8104STD	2	578	80	48	51	400V/3				•			
HWF4812E	2/2	R134a	1304	CGA°1084STY	2	589	78	46	49	400V/3				•			
				CGA°1123CT° 360	2	607	76	44	47	400V/3							•
				CGA°1124BTD	1	1365	94	62	65	400V/3				•			
				CDR°8104BTD	2	712	87	55	58	400V/3				•			
				CDR°8104CT° 810	2	656	84	52	55	400V/3							•
HWF5612E	2/2	R134a	1492	CGA°1103STY	2	703	79	47	50	400V/3				•			
				CDR°8104CT° 1020	2	772	89	57	60	400V/3							•
				CGA°1084BTY	2	769	88	56	59	400V/3				•			
HWF6412E	2/2	R134a	1597	CGA°1104STY	2	751	79	47	50	400V/3				•			
				CGA°1084BTD	2	860	92	60	63	400V/3				•			
				CGA°1103BTY	2	896	89	57	60	400V/3				•			
				CGA°1123STY	2	843	80	48	51	400V/3				•			

- Power to the condenser heat disposed:**
Water temperature (in/out) 12°C/7°C; External air temperature 35°C
- Heating capacity disposed:**
External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering
Note: For more information contact us

Condenserless unit	compressors / circuit	refrigerant	Heating capacity disposed to the condenser kW ⁽¹⁾	Condenser	N°Condenser for chiller	Heating capacity disposed kW ⁽²⁾	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] to 10 mt	Sound pressure Q=2 [dB(A)] to 10 mt	Power supply [V]	Connection Kit	Dual circuit	1 control box+1 speed regulator +1 probe	1 control box+1 speed regulator +2 probe	1 speed regulator +1 probe	1 control box CT°+1 speed regulator CT°+1 probe	1 control box CT°+1 speed regulator CT°+2 probe
HWF2512AE	2/2	R134a	695	CDR°8104BTD	1	712	87	55	58	400V/3				•			
				CDR°8104CT° 880	1	696	86	54	57	400V/3							•
				CGA°1103STY	1	703	79	47	50	400V/3				•			
				CVR°8073CT° 530	2	353	74	42	45	400V/3	• (1)					•	
				CDR°8103CT° 460	2	390	72	40	43	400V/3							•
HWF2812AE	2/2	R134a	791	CDR°8104CT° 390	2	356	69	37	40	400V/3							•
				CGA°1084BTD	1	860	92	60	63	400V/3				•			
				CGA°1103BTY	1	896	89	57	60	400V/3				•			
				CGA°1123STY	1	843	80	48	51	400V/3				•			
				CDR°8103CT° 530	2	436	75	44	47	400V/3							•
HWF3212 AE	2/2	R134a	937	CDR°8104CT° 460	2	413	72	40	43	400V/3							•
				CGA°1103BTD	1	991	93	61	64	400V/3				•			
				CGA°1104BTY	1	1003	89	57	60	400V/3				•			
				CGA°1124CT° 585	1	958	86	54	57	400V/3							•
				CVR°8074STD	2	469	78	47	50	400V/3	• (1)		•				
HWF3612AE	2/2	R134a	1050	CGA°1103CT° 360	2	506	75	43	46	400V/3							•
				CGA°1104BTD	1	1137	93	61	64	400V/3				•			
				CGA°1123BTY	1	1076	90	58	61	400V/3				•			
				CVR°8074BTD	2	577	85	54	57	400V/3	• (1)		•				
				CDR°8103STD	2	526	80	48	51	400V/3				•			
HWF4212AE	2/2	R134a	1217	CGA°1083STY	2	534	78	46	49	400V/3				•			
				CGA°1104CT° 360	2	528	75	43	46	400V/3							•
				CGA°1124BTD	1	1365	94	62	65	400V/3				•			
				CGA°1124CT° 810	1	1216	93	61	64	400V/3							•
				CDR°8103BTD	2	630	87	55	58	400V/3				•			
HWF4812AE	2/2	R134a	1374	CDR°8103CT° 880	2	615	86	54	57	400V/3							•
				CDR°8104CT° 740	2	613	82	50	53	400V/3							•
				CGA°1103STY	2	703	79	47	50	400V/3				•			
				CGA°1124CT° 360	2	633	76	44	47	400V/3							•
				CGA°1124CT° 960	1	1375	97	65	68	400V/3							•
HWF5612AE	2/2	R134a	1530	CDR°8104BTD	2	712	87	55	58	400V/3				•			
				CDR°8104CT° 880	2	696	86	54	57	400V/3							•
				CGA°1103STY	2	703	79	47	50	400V/3				•			
				CDR°8104CT° 1020	2	772	89	57	60	400V/3							•
				CGA°1084BTY	2	769	88	56	59	400V/3				•			
HWF6412AE	2/2	R134a	1646	CGA°1123STY	2	843	80	48	51	400V/3				•			
				CGA°1084BTD	2	860	92	60	63	400V/3				•			
				CGA°1103BTY	2	896	89	57	60	400V/3				•			
				CGA°1123STY	2	843	80	48	51	400V/3				•			

Power to the condenser heat disposed:

Water temperature (in/out) 12°C/7°C; External air temperature 35°C

Heating capacity disposed:

External air temperature 35°C; Mean temperature of condensation 50°C

(1)= To Be Envisaged when ordering

Note: For more information contact us

Aermec si riserva la facoltà di apportare in qualsiasi momento tutte le modifiche ritenute necessarie per il miglioramento del prodotto con eventuale modifica dei relativi dati tecnici.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia

Tel. 0442633111 - Telefax 044293730

www.aermec.com

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 V
- 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 12-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

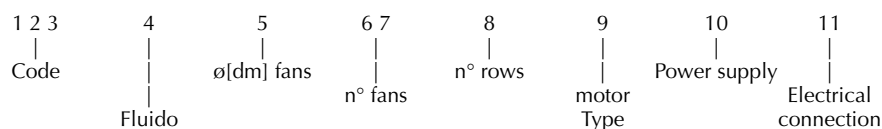
- Two exchangers positioned as V
- Fans diameter 800 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

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:



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 1 to 6

Motor type:

B - Standard
S - Silenced
E - Extra silenced

Power supply:

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 [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								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	2	2	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%

Technical and dimensional data

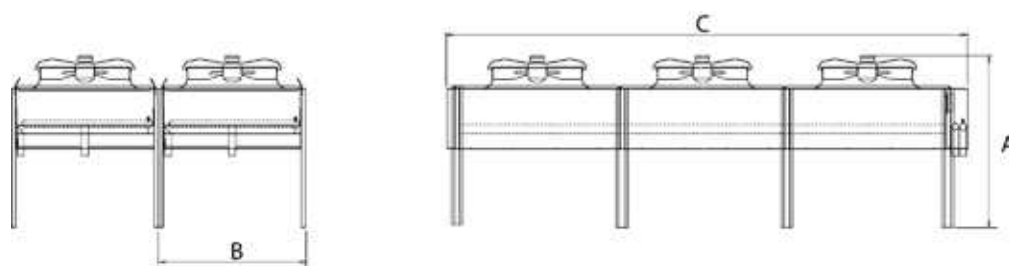
Model WTE	wiring connec.	Ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTE°0534BM	Monophase	5	3	4	21090	61	50	1060	833	2985
WTE°0535BM	Monophase	5	3	5	20235	67	50	1060	833	2985
WTE°0543BM	Monophase	5	4	3	29440	69	51	1060	833	3925
WTE°0544BM	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	40	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%

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°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

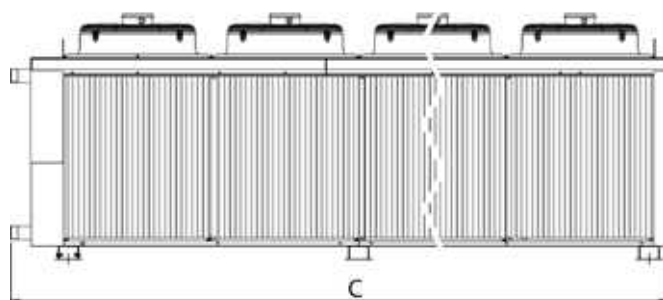
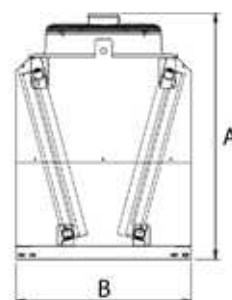
Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTE°0944ST	triangle	9	4	4	56200	183	56	1530	1434	3063
WTE°0946ST	triangle	9	4	6	51600	208	56	1530	1434	3063
WTE°0963ST	triangle	9	6	3	90000	235	58	1530	1434	4493
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



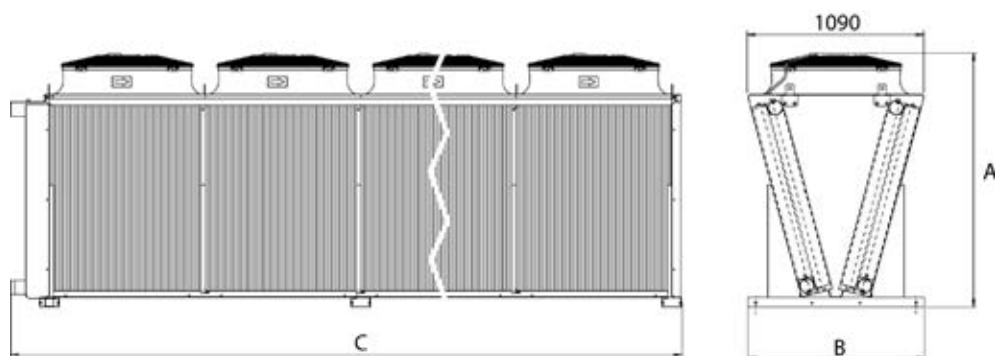
Model WTS	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTS°0523BT	triangle	5	2	3	15.800	46	51	1065	780	1610
WTS°0524BT	triangle	5	2	4	15.200	51	51	1065	780	1610
WTS°0533BT	triangle	5	3	3	23700	69	53	1065	780	2265
WTS°0534BT	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%

WTR



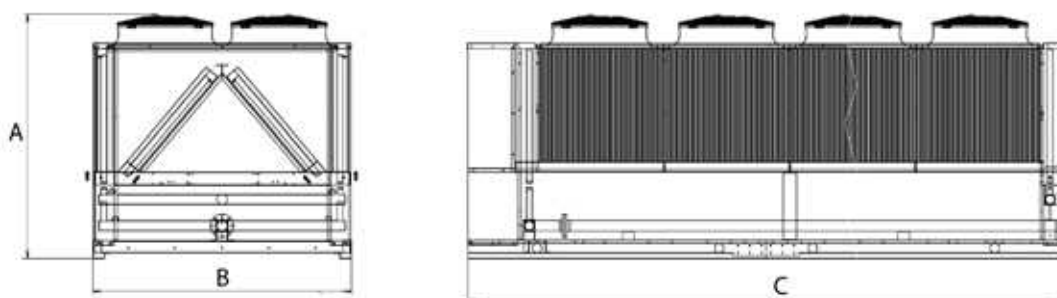
Model WTR	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTR°0823BT	triangle	8	2	3	46.000	131	51	1590	1100	2270
WTR°0824BT	triangle	8	2	4	45.000	150	51	1590	1100	2270
WTR°0833BT	triangle	8	3	3	70000	204	53	1590	1100	3210
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 [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								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

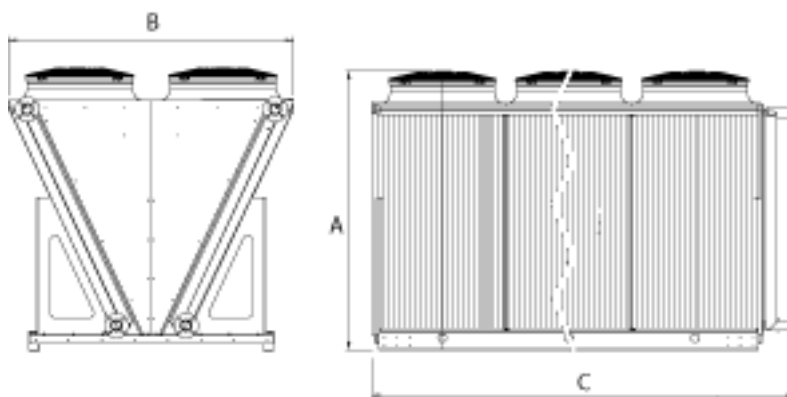
Model WTA	wiring connec.	Ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTA°0843ST	triangle	8	4	3	62000	220	46	2090	2200	3250
WTA°0844ST	triangle	8	4	4	60000	236	46	2090	2200	3250
WTA°0863ST	triangle	8	6	3	87000	297	48	2090	2200	3850
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 [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								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%

WST

Water Station
Hydronic kit plug & play solution
for internal installation



- **FOR NXW RANGE**
- **PACKAGED PLUG & PLAY CONTAINING THE MAIN HYDRAULIC COMPONENTS**
- **IDEAL FOR INDUSTRIAL APPLICATIONS WHERE CHILLED WATER IS REQUIRED IN WINTER SEASONS**
- **FREECOOLING OPERATION**

Characteristics

- Hydronic plug & play kit containing the main hydraulic and controls components of a hydraulic installation.
The WST units are designed to ease the installation in systems where the production of chilled water is required all year round, in combination with a water-water chiller and a drycooler.

Operation

Chiller: When the external air temperature is higher than the system return water temperature the cooling capacity is provided by the chiller. The WST controls the drycooler by modulating the fans on the basis of the chiller condensing pressure.

Freecooling: When the external air temperature is then lower then WST turns off the chiller and uses the water from the drycooler to cool the system water through the freecooling heat exchanger.

Hydraulic components

Hydraulic circuit (drycooler side)

- Water filter
- Flow switches
- Isolating valves
- Mixing valve
- Bypass valves
- Pumps
- Butterfly valves (enabling freecooling)
- High efficiency plate heat exchanger (freecooling)
- Water temperature sensors

Hydraulic circuit (chiller side)

- Water filter
- Flow switches
- Isolating valves
- Pumps
- Water temperature sensors

NOTE

For the combination of the hydronic kit options (drycooler / chiller side), refer to the configurator.

Control

- Microprocessor based electronic control with Modbus communications protocol.
The WST comes standard with accessorio aer485p1. Accessory to predict compulsorily nell'NXW, for communication between the units.

Advanced electronic continuous monitoring of multiple operating parameters and ambient conditions, in order to switch between the operating modes (chiller/freecooling), when available. This permits the reduction of operating costs and provides higher energy efficiency.

- Control of the drycooler fans in order to manage the chiller condensing pressure (chiller mode), or the recovered capacity (freecooling mode).
- Cold chiller starting control by modulating the drycooler fans and the mixing valve.
- Structure and base in epoxy painted hot dipped galvanised steel.

Accessories

- VT: Anti-vibration mounts.

Accessories compatibility

WST only cooling		01	02	03	04	05	06
AVX	without pump stand-by	325	326	327	328	328	328
	with pump stand-by	325	327	327	329	329	329

Warning: NXW unit is required to use the attachment AER485P1

Tav. pairings WST

Chiller	WST	Dry coolers recommended ⁽²⁾
NXW0500 NXW0550	WST01	WTR 824 EC 980
NXW 0600 NXW 0650	WST02	WTR 834 EC 980
NXW 0700 NXW 0750	WST03	WTR 844 EC 980
NXW 0800 NXW 0900	WST 04	WTR 854 EC 980
NXW 1000 NXW 1250	WST 05	WTR 864 EC 980
NXW 1400	WST 06	WTR 874 EC 980

The combinations are referred to the following conditions, to be verified in the case of particular conditions: refers to standard conditions

Cooling

System side

Water temperature (in/out) 12°C/7°C, Glycol 0%.

Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

(2) EC is compulsory adjustment on the fans of Dry cooler

Unit selection

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

Field	Description
1,2,3	WST
4,5	Size 01-02-03-04-05-06
6	Kit freecooling
	F Freecooling
7	System water flow ° Standard (constant water flow rate)
8	System side connected hydronic kit ⁽³⁾
	P1 n° 1 Low head system pump
	P2 n° 2 Low head system pumps
	P3 n° 1 High head system pump
	P4 n° 2 High head system pumps
9	Drycooler side connected hydronic kit ⁽³⁾
	D1 n° 1 Low head system pump
	D2 n° 2 Low head system pumps
	D3 n° 1 High head system pump
	D4 n° 2 High head system pumps

	P1	P2	P3	P4
D1	ok	n.d.	ok	n.d.
D2	n.d.	ok	n.d.	ok
D3	ok	n.d.	ok	n.d.
D4	n.d.	ok	n.d.	ok

(3) For the compatibility between hydronic kits refer to the adjacent table

Technical data

Mod. WST Water Station			01	02	03	04	05	06
System side								
Water flow rate	l/h		17633	23458	29756	40627	51324	60613
Useful static pressure	(P1/P2)	kPa	134	133	174	164	178	119
Useful static pressure	(P3/P4)	kPa	226	217	250	235	254	198
Power input	(P1/P2)	kW	1,5	2,2	3,5	4,0	5,1	4,7
Power input	(P3/P4)	kW	2,5	3,1	4,7	5,4	6,8	6,4
Dry cooler side (chiller mode)								
Water flow rate	l/h		24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	119	126	138	173	187	178
Useful static pressure	(D3/D4)	kPa	172	201	209	250	245	214
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9
Dry cooler side (freecooling mode)								
Cooling capacity	kW		82,2	108,5	137,9	188,0	241,3	283,9
Water flow rate	l/h		24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	71	79	109	141	144	125
Useful static pressure	(D3/D4)	kPa	125	154	180	218	202	160
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9

Cooling

System side

Water temperature (in/out) 12°C/7°C; Glycol 0%.

Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

Cooling in freecooling mode (100%)

System side

Water temperature (in/out) 14°C/*; Water flow rate as in cooling operation; Glycol 0 %

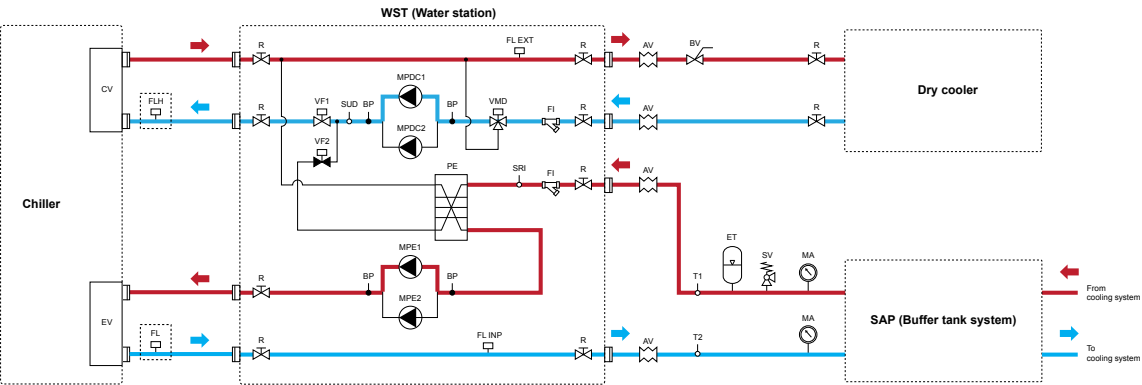
Dry-cooler side

Water temperature (in/out) 6,7°C/*; Water flow rate as in cooling operation; Glycol 35%

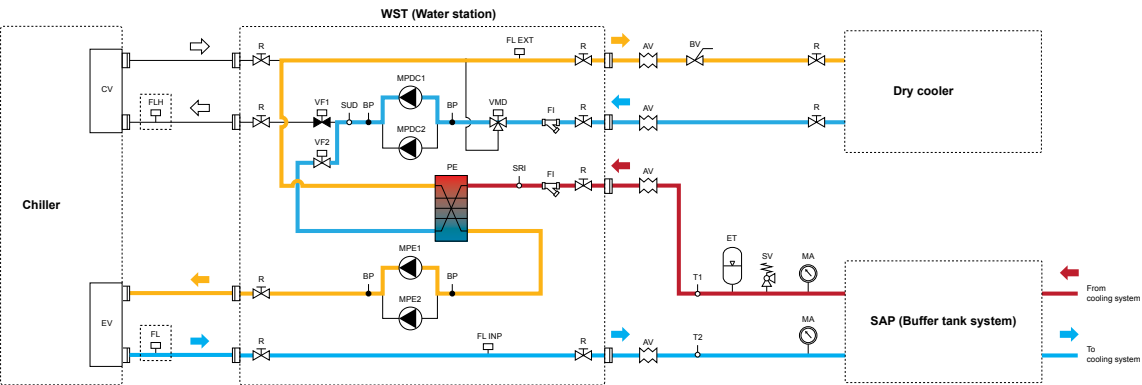
GENERAL DATA			01	02	03	04	05	06
Electrical data								
Total input current	(P1/P2)	A	2,7	3,9	5,8	6,6	8,5	7,8
	(P3/P4)	A	4,3	5,5	7,8	8,9	11,1	10,4
	(D1/D2)	A	4,0	6,0	6,6	9,9	20,8	20,3
	(D3/D4)	A	5,2	8,2	9,0	10,9	18,9	22,0
Maximum current (FLA)	P1(P2) - D1(D2)	A	8,6	13,1	16,3	19,1	31,2	37,0
	P3(P4) - D1(D2)	A	11,4	14,4	19,1	22,0	34,8	40,6
	P1(P2) - D3(D4)	A	10,0	16,0	19,1	22,7	37,0	37,0
	P3(P4) - D3(D4)	A	12,8	17,2	22,0	25,6	40,6	40,6
hydraulic connections								
hydraulic connections (in/out)	type		Victaulic	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic
hydraulic connections system side	Ø		2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"
hydraulic connections (chiller)	Ø		2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"
hydraulic connections (dry cooler)	Ø		2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"

Operating schematics

Chiller Operation

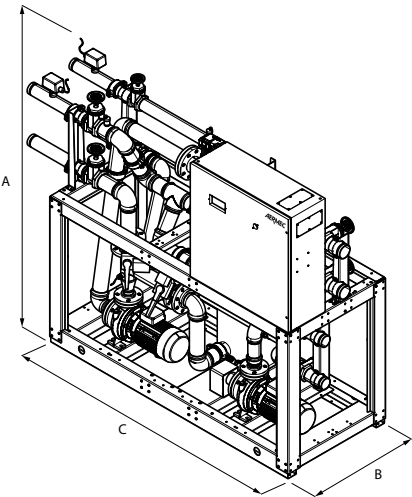


Freecooling Operation



The images and drawings contained in this document are indicative only, for the purpose of illustrating the operation

Dimensional data (mm)



Model WST Water Station			01	02	03	04	05	06
Height	A	mm	1835	1837	1835	1956	2206	2206
Width	B	mm	796	796	796	796	796	796
Depth	(3) C	mm	1400	1500	2010	2282	2579	2623
Weight empty	without pump stand-by	Kg	487	577	684	893	1054	1074
	with pump stand-by	Kg	579	790	941	1140	1320	1350

(3) Including protrusions of the hydraulic connections

Aermec reserves the right to make all modifications deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

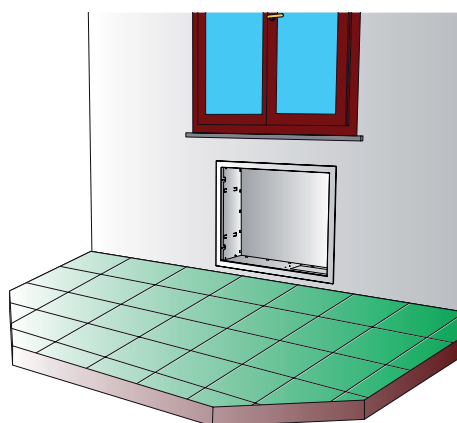
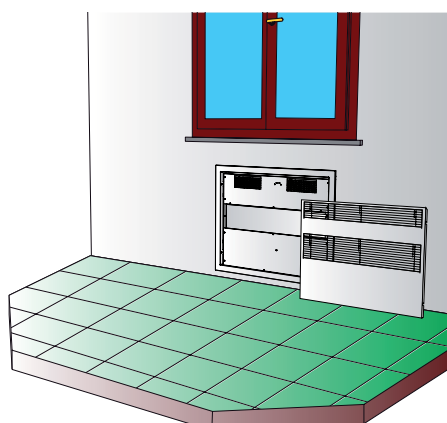
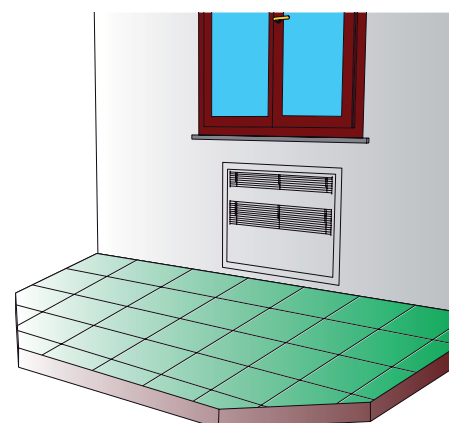
DMP

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 dehumidifica-

- tion 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

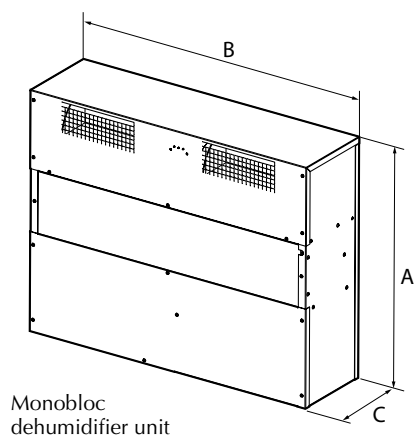
Mod.		DMP 20	The performance refers to the following conditions:
Nominal dehumidification capacity (1)	l/24h	20	
Nominal input power (1)	W	340	
Nominal input current (1)	A	2,3	
Dehumidification capacity (2)	l/24h	49	Dehumidification
Input power (2)	W	390	(1) = Nominal conditions (min. fan speed)
Heating capacity produced - normal working conditions in heating mode (3)	W	1010	Room air temperature: 26°C
Input power (3)	W	25	Relative humidity: 65%
Maximum current absorbed	A	2,5	Water input temperature: 15°C
Peak current	A	4	
Nominal water flow rate	l/h	170	(2) = Maximum conditions (min. fan speed)
Pressure drop	kPa	7	Room air temperature: 35°C
	m ³ /h (min.)	200	Relative humidity: 80%
	Air flow rate	300	Water input temperature: 15°C
	m ³ /h (max.)	380	
Sound Pressure	dB [A]	33	Heating
Weight	kg	36	(3) = Rapid heating at normal conditions (min. fan speed)

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

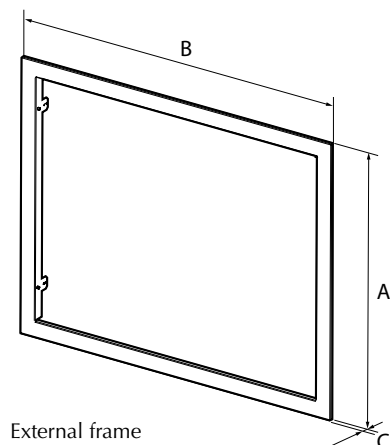
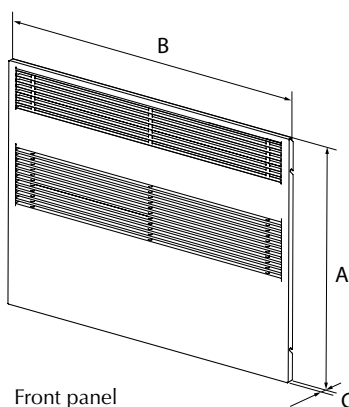
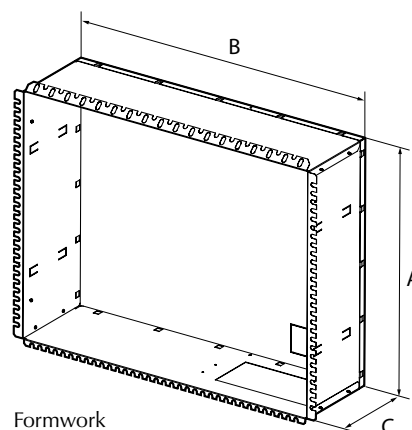
Dimensional data (mm)

DMP 20



		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



AERMEC



04. ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements: Aermec: the answer to air conditioning.

A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space.

Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.

SI

Split system air conditioner and heat pump
Wall mounted monosplit with capacity from 2.6 a 6.45kW
DC Inverter Technology

Air ioniser standard

R410A



Seasonal Energy Efficiency
 See Technical data



SI_E



Regulation (EU) N. 206/2012
 Delegated Regulation (EU) N. 626/2011



SI_C



Characteristics

- Available in 4 different capacity sizes.
- Refrigerant R410A
- Heat pump operation with reversible refrigerant cycle and defrost control
- Tangential type fan with 4 speeds:
 - 3 speeds directly selected (Minimum, Medium, Maximum)
 - One Super High speed when the Rapid Cooling/Heating (TURBO) function is activated, to achieve the required temperature as quickly as possible
- DC Inverter rotary compressor
- Extremely low noise operation
- Microprocessor control
- Infrared remote controller with liquid crystal display to control all functions
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)
- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller (LIGHT)
- Timer to programme clock functions (switch on or off)
- Operating modes: Cooling, Heating, Dehumidification, Automatic or Ventilation Only
- Air ioniser standard
- Night-time Health function (SLEEP)
- Energy Saving function
- Rapid Cooling/Heating function (TURBO)
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function
- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvers
- Motorised deflector louvers controlled by the remote controller to vertically adjust the discharge air, with 5 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

Technical data

Internal Unit		SI090E	SI120E	SI180E	SI240E
External Unit		SI090C	SI120C	SI180C	SI240C
Cooling capacity	W (nominal)	2600	3500	5275	6450
Power input	W (nominal)	870	1150	1600	2180
SEER		5,6	5,1	5,4	5,1
Energy efficiency class		A ⁺	A	A	A
Condensate rate	l/h	0,8	1,4	1,8	2
Heating capacity	W (nominal)	3000	3800	5570	7000
Power input	W (nominal)	900	1100	1750	2220
SCOP		3,8	3,8	3,8	3,8
Energy efficiency class		A	A	A	A
Power input nominal *	W	1550	1650	2650	2800
Airflow rate (SI_E)	m ³ /h	600/520/370/280	680/560/410/300	800/680/560/460	1000/800/700/550
♪ Sound pressure max (SI_E)	dB(A)	38	39	44	47
♪ Sound pressure max (SI_C)	dB(A)	51	53	55	58
Compressor Rotary DC Inverter					
Max line length	m	15	20	25	25
Max elevation change (Internal - external unit)	m	10	10	10	10
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"	1/4"
	Ø gas	3/8"	3/8"	1/2"	5/8"
Refrigerant lines	mm (inch) Ø liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	mm (inch) Ø gas	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")
Power supply	V ~ Hz	230V ~ 50Hz			

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

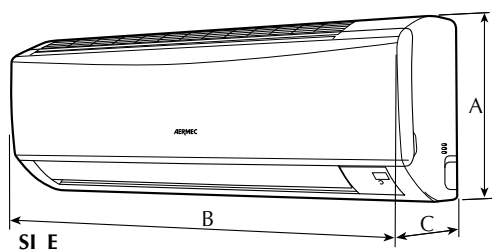
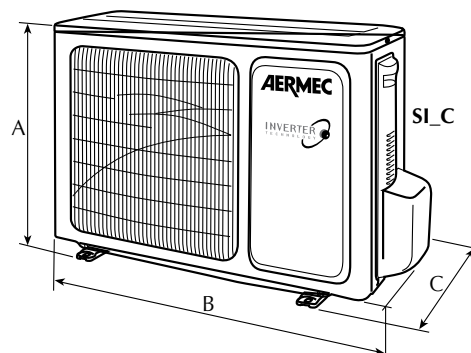
Cooling:

- Ambient air temperature 27°C db ; 19°C wb
- External air temperature 35°C
- Maximum speed
- Refrigerant line length 5m

Heating:

- Ambient air temperature 20°C
- External air temperature 7°C db ; 6°C wb
- Maximum speed
- Refrigerant line length 5m

Dimensional data (mm)



		SI				SI			
		090E	120E	180E	240E	090C	120C	180C	240C
Height	A	283	283	305	315	540	540	700	790
Width	B	770	770	865	1007	776	848	955	980
Depth	C	201	201	215	219	320	320	396	427
Weight	kg	8	9	12	14,5	28	30	46	55,5

Aermec reserves the right to make all modifications deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

HWI

Split system air conditioner and heat pump
Wall mounted monosplit with capacity from 2.6 to 6.45kW
DC Inverter Technology

Air ioniser standard

R410A



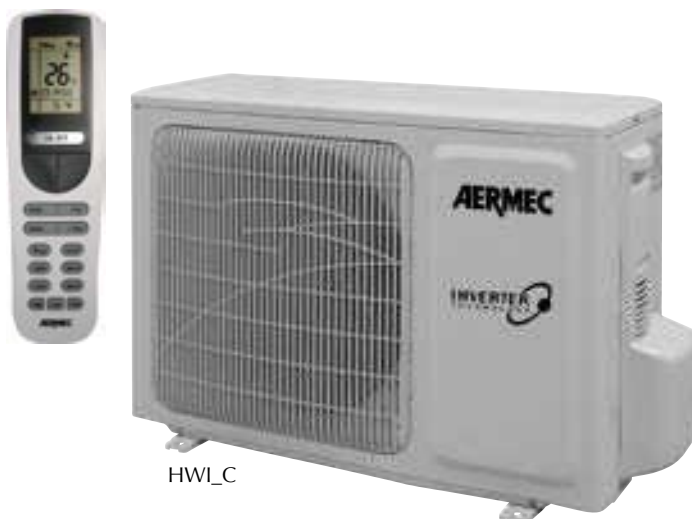
Seasonal Energy Efficiency
 See Technical data



Regulation (EU) N. 206/2012
 Delegated Regulation (EU) N. 626/2011



HWI_E



HWI_C

Characteristics

- Available in 4 different capacity sizes
- Refrigerant R410A
- Heat pump operation with reversible refrigerant cycle and defrost control
- Tangential type fan with 4 speeds:
 - 3 speeds directly selected (Minimum, Medium, Maximum)
 - One Super High speed when the Rapid Cooling/Heating (TURBO) function is activated, to achieve the required temperature as quickly as possible
- DC Inverter rotary compressor
- Extremely low noise operation
- Microprocessor control
- Infrared remote controller with backlit liquid crystal display to control all functions
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)
- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller
- (LIGHT)
- Clock on remote controller
- Timer to programme clock functions (switch on and/or off)
- Operating modes: Cooling, Heating, Dehumidification, Automatic or Ventilation Only
- Air ioniser standard
- Night-time Health function (SLEEP)
- Energy Saving function
- Rapid Cooling/Heating function (TURBO)
- Personal Climate (I FEEL) function allows the user to have around him the desired climate through the internal sensor of the remote controller
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Antifreeze function prevents the internal space temperature dropping below 8°C during the winter period
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function
- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvres
- Motorised deflector louvres controlled by the remote controller to vertically adjust the discharge air, with 8 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

Technical data

Internal Unit		HWI091E	HWI121E	HWI181E	HWI241E
External Unit		HWI091C	HWI121C	HWI181C	HWI241C
Cooling capacity	W	2600	3500	5275	6450
Power input	W	720	1100	1620	1940
SEER		6,4	6,4	5,6	5,8
Energy efficiency class		A ⁺⁺	A ⁺⁺	A ⁺	A ⁺
Condensate rate	l/h	0,8	1,4	1,8	2,0
Heating capacity	W	2750	3650	5275	6450
Power input	W	720	1100	1600	1910
SCOP		4,0	3,8	3,8	3,8
Energy efficiency class		A ⁺	A	A	A
Power input nominal *	W	1550	1580	2500	3050
Airflow rate (HWI_E)	m ³ /h	650/500/400/300	650/500/400/300	850/780/650/500	1000/800/700/600
♪ Sound pressure max (HWI_E)	dB(A)	48	48	47	49
♪ Sound pressure max (HWI_C)	dB(A)	53	53	55	60
Compressor		Rotary DC Inverter			
Max line length	m	20	20	25	25
Max elevation change (Internal - external unit)	m	10	10	10	10
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"	1/4"
	Ø gas	3/8"	3/8"	1/2"	5/8"
Refrigerant lines	mm (inch) Ø liquid	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	mm (inch) Ø gas	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")
Power supply	V ~ Hz	230V ~ 50Hz			

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

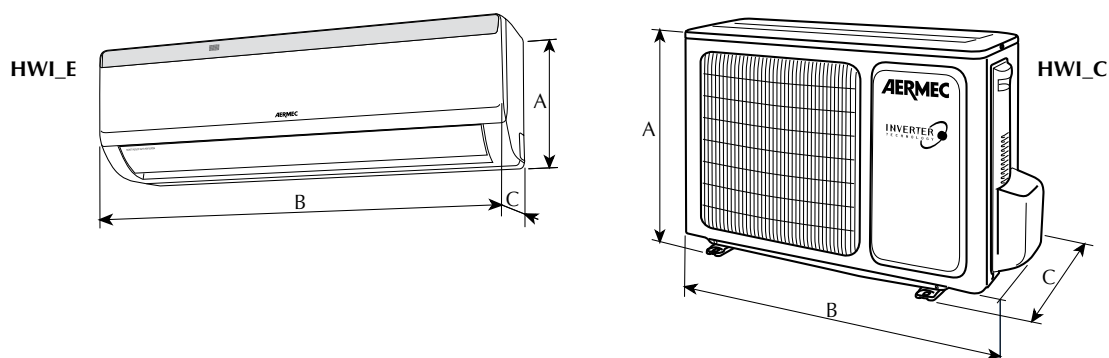
Cooling:

- Ambient air temperature 27°C db ; 19°C wb
- External air temperature 35°C
- Maximum speed
- Refrigerant line length 5m

Heating:

- Ambient air temperature 20°C
- External air temperature 7°C db ; 6°C wb
- Maximum speed
- Refrigerant line length 5m

Dimensional data (mm)



		HWI				HWI			
		091E	121E	181E	241E	091C	121C	181C	241C
Height	A	275	275	298	315	540	540	700	790
Width	B	845	845	945	1018	798	848	955	980
Depth	C	189	189	208	223	320	320	396	427
Weight	kg	10	10	13	15,5	30	33	46	62,5

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LCI Split system air conditioner and heat pump Monosplit with capacity from 2.7 to 17kW DC Inverter Technology



Seasonal Energy Efficiency
See Technical data

R410A



**COOLING WITH
EXTERNAL TEMPERATURE
DOWN TO -15°C**



Regulation (EU) N. 206/2012
Delegated Regulation (EU) N. 626/2011



LCI_F



LCI_C



Wired panel



Controller



LCI_D

Characteristics

The **LCI series** consist of an external Inverter unit connected to 3 types of internal units

External unit:

- **LCI:** 8 sizes of different capacity with single phase power
- **LCI_T:** 4 sizes of different capacity with three phase power

Internal unit:

- **Cassette (False ceiling mounted) (600x600):**
LCI036CS - 051CS
(It is required to connect with accessory LCI036CS)
- **Cassette (False ceiling mounted) (840x840):**
LCI071C - 086C - 101C - 121C
(It is required to connect with accessory LCI071C)
- **Cassette (False ceiling mounted) (910x910):**
LCI141CB - 161CB
(It is required to connect with accessory LCI141CB)
- **Floor Ceiling (Wall or ceiling mounted):**
LCI026F - 036F - 051F - 071F - 086C - 101F - 121F - 161F
- **Ducted (Horizontal installation):**
LCI026D - 036D - 051D - 071D - 086D - 101D

- 121D - 141D - 161D
- Refrigerant R410A
- Heat pump operation with reversible refrigerant cycle and defrost control
- The DC Inverter compressors are selected to maximise efficiency, reduce consumption and minimise starting current
- External unit fitted with one or two fans with DC Inverter motor with continuous speed control
- Internal unit with 3 speed fan assembly
- Wired panel and remote controller standard on all internal units
- Infrared remote controller with liquid crystal display to control all functions
- Wired panel with liquid crystal display to control all functions
- Microprocessor control
- Possibility to set the ambient temperature sensor in the intake of the internal unit or in the wired panel
- Timer for programming switch on or off
- Operating modes: Cooling, Heating, Dehumidification, Automatic or Ventilation Only

- Extremely low noise operation
- Auto-Restart function: restart as default, can be deactivated
- Condensate discharge pump in version LCI_C - CS - CB
- Simple installation and maintenance
- Air filter easily removed and cleaned
- Flare type refrigerant connections
- Maximum refrigerant line lengths:
 - up to 20m for units LCI026, LCI036 and LCI051
 - up to 30m for units LCI071, LCI086, LCI101, LCI101T
 - up to 50m for units LCI121, LCI121T, LCI141, LCI141T and LCI161T
- **Condensation control device standard; allows operation in Cooling with external temperatures down to -15°C**

Technical data

External Unit (E.U.) LCI			036	051	071	086	101	121	141	101T	121T	141T
Internal Unit (I.U.) LCI			036CS	051CS	071C	086C	101C	121C	141C	101C	121C	141C
Cooling capacity	W		3500	5000	7000	8300	10000	11000	14000	10000	11000	14000
		(min)	900	1600	2400	2600	3200	3300	6000	3000	3500	6000
		(max)	3900	5500	8500	9200	11500	12000	14800	11500	13000	14800
SEER			5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	-	5,10
Energy efficiency class			A	A	A	A	A	A	A	A	-	A
Power input total	W		1090	1600	2180	2670	3200	3900	4600	3115	3425	-
		(min)	300	550	850	850	750	530	1300	1020	1040	-
		(max)	1400	1750	2500	2700	4500	4650	5500	4101	4320	-
Current input	A		5,0	7,2	10,10	12,4	15	18,10	21,30	4,8	5,4	-
		(min)	1,3	2,3	3,6	3,6	3,6	2,87	5,80	1,6	1,6	-
		(max)	6,2	7,8	11,0	11,8	20,0	20,0	26,0	6,1	6,5	-
Heating capacity	W		3800	5500	8000	9200	12000	12500	16000	11000	12000	16000
		(min)	900	1400	2400	2400	2900	3600	5200	3500	3800	5200
		(max)	4100	6500	9500	9900	14500	15000	18000	12800	14500	18000
SCOP			3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	-	3,8
Energy efficiency class			A	A	A	A	A	A	A	A	-	A
Power input total	W		1050	1580	2210	2570	3500	3800	4500	3047	3300	-
		(min)	200	500	800	800	600	640	1200	900	920	-
		(max)	1200	1900	2750	2860	4800	4080	5400	3840	4020	-
Current input	A		4,90	7,6	10,20	12,0	17,6	14,64	20,8	4,7	4,88	-
		(min)	1,0	2,1	3,40	3,4	3,32	3,5	5,4	1,4	1,4	-
		(max)	5,4	8,4	12,0	12,6	20,0	17,9	25,0	5,7	6,0	-
Compressor		Tipo	DC-Inverter									
Fans (E.U.)	n°		1	1	1	1	1	1	2	1	1	2
Airflow rate nominal (I.U.)	m³/h (Vmax)		700	760	1300	1500	1860	1860	2300	1660	1660	-
♪ Sound pressure (I.U.)	dB(A) (max)		46	47	47	49	51	51	53	53	53	-
♪ Sound pressure (E.U.)	dB(A) (max)		52	56	57	58	63	61	59	61	61	-
Refrigerant connections	Ø liquid	inch	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	-	3/8"	3/8"	-
	Ø gas	inch	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	-	5/8"	5/8"	-
Refrigerant lines	Ø liquid	inch	6,35	6,35	9,52	9,52	9,52	9,52	-	9,52	9,52	-
		mm	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	-	3/8"	3/8"	-
	Ø gas	inch	9,52	12,7	15,9	15,9	15,9	15,9	-	15,9	15,9	-
		mm	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	-	5/8"	5/8"	-
Maximum refrigerant line lengths	m		20	20	30	30	30	50	-	30	50	-
Maximum elevation change	m		15	15	15	15	15	30	-	15	30	-

Power supply internal unit (I.U.): 230V~50Hz

Power supply External Unit (E.U.): 230V~50Hz (LCI); 400V 3N~50Hz (LCI_T)

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

Cooling:

- Ambient air temperature 27°C db ; 19°C wb
- External air temperature 35°C
- Maximum speed
- Refrigerant line length 5m

Heating:

- Ambient air temperature 20°C
- External air temperature 7°C db ; 6°C wb
- Maximum speed
- Refrigerant line length 5m

Accessories

SUPPLY GRILLE: Supply grilles are motorised. Fitted with infrared receiver and emergency operation button.

- **LCIGL40S:** Supply and return air grilles

(600x600). Is a required accessory as the unit LCI_CS is shipped without.

- **LCIGL40:** Supply and return air grille (840x840). Is a required accessory as the unit LCI_C is

shipped without.

- **LCIGL40B:** Supply and return air grille (910x910). Is a required accessory as the unit LCI_CB is shipped without.

Mod.	LCI036CS	LCI051CS	LCI071C	LCI85C	LCI101C	LCI121C	LCI141CB	LCI161CB
LCIGL40S	✓	✓						
LCIGL40			✓	✓	✓	✓		
LCIGL40B							✓	✓

Dimensional data (mm)

Mod.	LCI	036	051	071	086	101	121	141	101T	121T	141T	161T
A	mm	540	700	790	790	1101	1101	1365	1101	1101	1365	1365
B	mm	848	955	980	980	1107	1107	1085	1107	1107	1085	1085
C	mm	320	396	427	427	440	440	427	440	440	427	427
Weight	kg	33	46	65	68	89	89	116	88	88	116	118

LCI	036CS*	051CS**	071C**	086C**	101C**	121C**	141CB***	161CB***
A	mm	600	600	840	840	840	910	910
B	mm	600	600	840	840	840	910	910
C	mm	230	230	240	320	320	-	-
Weight	kg	20	20	27	32	32	-	-

*:Grille dimensions LCIGL40S mm 670x670x50;

Weight = 5 kg

**Grille dimensions LCIGL40 mm 950x950x60;

Weight = 6,5 kg

***Grille dimensions LCIGL40B mm 1040x1040x60;

Technical data

External Unit (E.U.) LCI			026	036	051	071	086	101	121	141	101T	121T	141T	161T
Internal Unit (I.U.) LCI			026D	036D	051D	071D	086D	101D	121D	141D	101D	121D	141D	161D
Cooling capacity	W		2700	3500	5000	7000	8300	10000	11000	14000	10000	11000	14000	17000
		(min)	1150	1600	1600	2200	2400	3500	3500	5000	3500	3500	5000	4000
		(max)	3000	3600	5800	8500	8700	11500	13000	14300	11500	13000	14300	17500
SEER			5,1	5,1	5,1	5,1	5,1	5,1	-	-	5,1	-	-	-
Energy efficiency class			A	A	A	A	A	A	-	-	A	-	-	-
Power input total	W		830	1077	1550	2180	2670	3115	3426	4360	3115	3425	4360	5290
		(min)	450	480	550	850	840	1380	860	1620	1350	1340	1600	1680
		(max)	1200	1400	1750	2500	3200	4180	4150	5340	4101	4520	5360	6380
Current input	A		3,7	4,8	7,0	9,6	11,2	14,6	15,2	20,0	4,8	5,5	6,4	7,8
		(min)	2,1	2,2	2,3	3,7	3,7	6,1	3,8	7,1	2,1	2,1	2,8	2,6
		(max)	5,5	6,4	7,5	11,1	14,2	18,4	18,2	23,5	6,1	6,8	8,0	9,5
Heating capacity	W		2900	3800	5600	8000	9200	11000	12000	16000	11000	12000	16000	18000
		(min)	1010	1600	1400	2400	2400	3800	3800	5200	3800	3800	5200	5000
		(max)	3000	4000	6800	9500	9900	12800	14500	18000	12800	14500	18000	18800
SCOP			3,8	3,8	3,8	3,8	3,8	3,8	-	-	3,8	-	-	-
Energy efficiency class			A	A	A	A	A	A	-	-	A	-	-	-
Power input total	W		803	974	1550	2210	2570	3047	3300	4430	3047	3320	4430	4980
		(min)	450	450	500	800	800	1240	760	1460	1220	1230	1440	1400
		(max)	1200	1200	1900	2650	2750	3680	3700	5340	3680	4101	5320	5460
Current input	A		3,6	4,3	7,3	9,1	10,7	14,6	14,64	21	4,7	4,88	6,7	7,4
		(min)	2,1	2,1	2,1	3,5	3,5	5,5	3,3	6,4	1,9	1,9	2,2	2,2
		(max)	5,5	5,5	8,2	11,8	12,2	16,2	16,3	23,5	5,5	6,1	8,0	8,2
Compressor		Type	DC-Inverter											
Fans (E.U.)	n°		1	1	1	1	1	1	1	2	1	1	2	2
Airflow rate nominal (I.U.)	m³/h	(Vmax)	800	840	1010	1600	1500	2300	2300	2500	2300	2300	2500	3150
Head nominal (I.U.)	Pa	(Vmax)	25	25	25	25	37	37	37	50	37	37	50	50
♪ Sound pressure (I.U.)	dB(A)	(max)	37	37	42	47	47	53	53	53	53	53	53	54
♪ Sound pressure (E.U.)	dB(A)	(max)	53	54	57	59	59	61	61	61	61	61	61	63
Refrigerant connections	Ø liquid	inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Ø gas	inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant lines	liquid	mm	6,35	6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
		inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Ø gas	mm	9,52	9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19
		inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Maximum refrigerant line lengths	m		20	20	20	30	30	30	50	50	30	50	50	50
Maximum elevation change	m		15	15	15	15	15	15	30	30	15	30	30	30

Power supply Internal Unit (I.U.): 230V~50Hz (LCI_D)

Power supply External Unit (E.U.): 230V~50Hz (LCI); 400V 3N~50Hz (LCI_T)

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

■ Cooling:

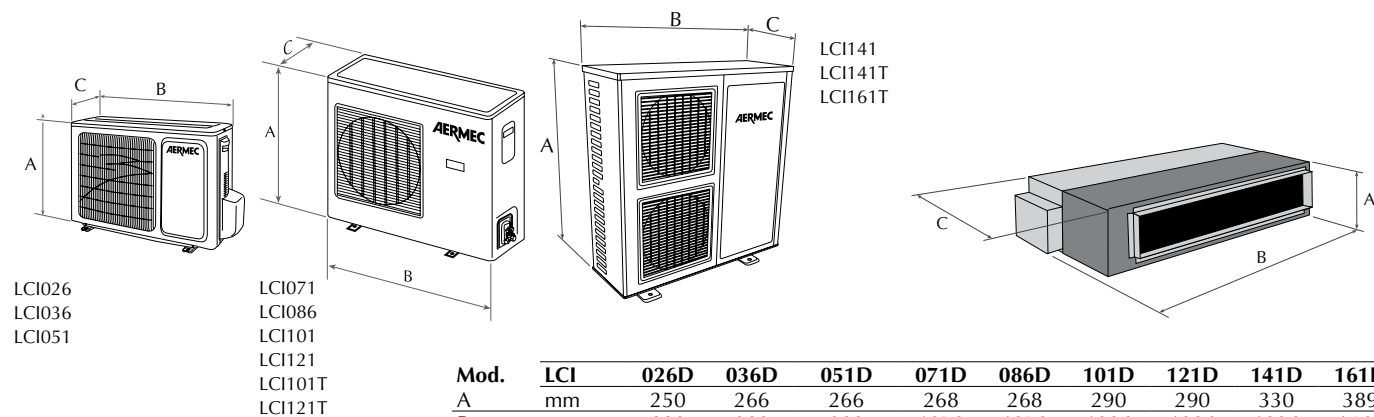
- Ambient air temperature 27°C db ; 19°C wb
- External air temperature 35°C
- Maximum speed
- Refrigerant line length 5m

■ Heating:

- Ambient air temperature 20°C
- External air temperature 7°C db ; 6°C wb
- Maximum speed
- Refrigerant line length 5m

Dimensional data (mm)

Mod.	LCI	026	036	051	071	086	101	121	141	101T	121T	141T	161T
A	mm	540	540	700	790	790	1101	1101	1365	1101	1101	1365	1365
B	mm	848	848	955	980	980	1107	1107	1085	1107	1107	1085	1085
C	mm	320	320	396	427	427	440	440	427	440	440	427	427
Weight	kg	33	33	46	65	68	89	89	116	88	88	116	118



Mod.	LCI	026D	036D	051D	071D	086D	101D	121D	141D	161D
A	mm	250	266	266	268	268	290	290	330	389
B	mm	880	980	980	1270	1270	1226	1226	1226	1463
C	mm	665	721	721	530	530	775	775	815	799
Weight	kg	26	34	34	37	36	57	57	64	87

Technical data

External Unit (E.U.) LCI			026	036	051	071	086	101	121	141	101T	121T	141T	161T
Internal Unit (I.U.) LCI			026F	036F	051F	071F	086F	101F	121F	141F	101F	121F	141F	161F
Cooling capacity	W		3000	3400	5000	7000	8500	10500	11500	14000	10500	11300	14000	16000
		(min)	1600	1600	1600	2400	2600	3500	3500	5000	3500	3500	5000	4000
		(max)	3500	3600	5800	8200	9200	13000	13000	14300	13000	13000	14300	16500
SEER			5,1	5,1	5,1	5,1	5,1	5,1	-	-	5,1	-	-	-
Energy efficiency class			A	A	A	A	A	A	-	-	A	-	-	-
Power input total	W		857	1059	1550	2180	2670	3270	3580	4360	3270	3520	4360	4980
		(min)	400	480	550	850	850	1080	850	1150	1080	1080	1420	1520
		(max)	1200	1400	1750	2500	2980	4040	4060	4980	4000	4260	5140	6040
Current input	A		3,8	4,7	7,0	9,6	12,1	14,9	15,88	20,0	4,9	5,2	6,21	7,4
		(min)	1,8	2,2	2,3	3,7	3,7	4,7	3,7	5,1	1,7	1,7	2,2	2,3
		(max)	5,5	6,4	7,5	11,1	13,2	17,7	17,8	21,8	6,0	6,4	7,7	9,0
Heating capacity	W		3000	3800	5600	8000	9200	11200	12500	16000	11200	12500	16000	17500
		(min)	1400	1360	1400	2400	2400	3500	3500	5200	3500	3500	5200	4500
		(max)	3800	4101	6800	9000	9900	12500	14200	18000	12500	14200	18000	18300
SCOP			3,8	3,8	3,8	3,8	3,8	3,8	-	-	3,8	-	-	-
Energy efficiency class			A	A	A	A	A	A	-	-	A	-	-	-
Power input total	W		750	927	1550	2210	2570	3101	3460	4430	3101	3460	4430	4840
		(min)	400	450	500	800	700	950	720	980	960	960	1280	1290
		(max)	1200	1200	1900	2780	2720	3840	3820	5080	3750	3880	5250	6330
Current input	A		3,3	4,1	7,3	9,8	11,6	14,5	15,35	21	4,6	5,12	6,5	7,2
		(min)	1,8	2,1	2,1	3,5	3,1	4,2	3,2	4,3	1,5	1,5	2,0	2,0
		(max)	5,5	5,5	8,2	12,3	12,1	16,9	16,8	22,3	5,6	5,8	7,8	9,5
Compressor	Type		DC-Inverter											
Fans (E.U.)	n°		1	1	1	1	1	1	1	2	1	1	2	2
Airflow rate nominal (I.U.)	m ³ /h	(Vmax)	650	700	900	1200	1600	2000	2000	2300	2000	2000	2300	2300
Sound pressure (I.U.)	dB(A)	(max)	39	39	45	52	50	54	54	58	54	54	58	58
Sound pressure (E.U.)	dB(A)	(max)	53	54	57	59	59	61	61	61	61	61	61	63
Refrigerant connections	Ø liquid	inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Ø gas	inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant lines	Ø liquid	mm	6,35	6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
		inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Ø gas	mm	9,52	9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19
		inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Maximum refrigerant line lengths	m		20	20	20	30	30	30	50	50	30	50	50	50
Maximum elevation change	m		15	15	15	15	15	15	30	30	15	30	30	30

Power supply Internal Unit (I.U.): 230V~50Hz (LCI_F)

Power supply External Unit (E.U.): 230V~50Hz (LCI); 400V 3N~50Hz (LCI_T)

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

■ Cooling:

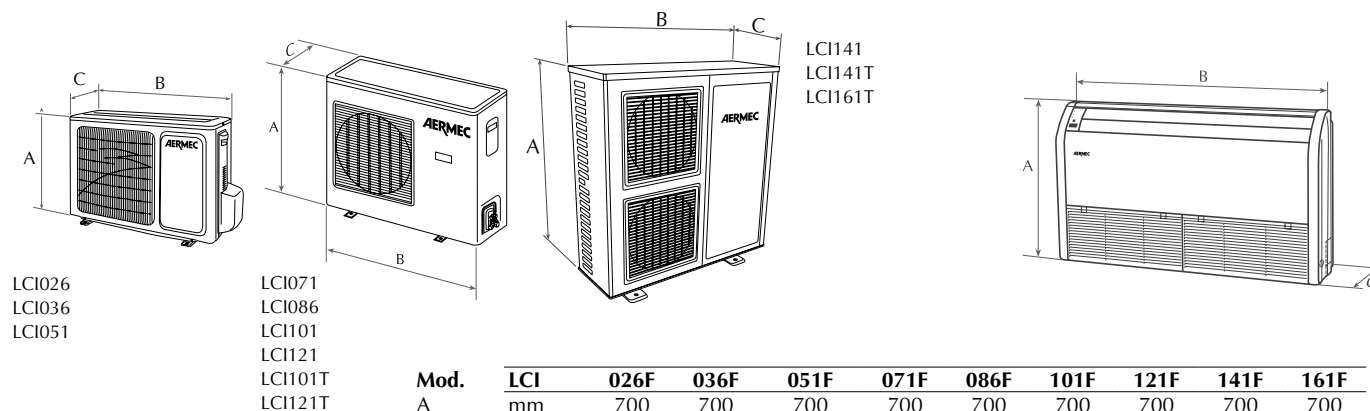
- Ambient air temperature 27°C db ; 19°C wb
- External air temperature 35°C
- Maximum speed
- Refrigerant line length 5m

■ Heating:

- Ambient air temperature 20°C
- External air temperature 7°C db ; 6°C wb
- Maximum speed
- Refrigerant line length 5m

Dimensional data (mm)

Mod.	LCI	026	036	051	071	086	101	121	141	101T	121T	141T	161T
A	mm	540	540	700	790	790	1101	1101	1365	1101	1101	1365	1365
B	mm	848	848	955	980	980	1107	1107	1085	1107	1107	1085	1085
C	mm	320	320	396	427	427	440	440	427	440	440	427	427
Weight	kg	33	33	46	65	68	89	89	116	88	88	116	118



Mod.	LCI	026F	036F	051F	071F	086F	101F	121F	141F	161F
A	mm	700	700	700	700	700	700	700	700	700
B	mm	1220	1220	1220	1220	1220	1420	1420	1420	1700
C	mm	225	225	225	225	245	245	245	245	245
Weight	kg	40	40	42	43	51	53	55	64	65

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

DXE

Heat pump with two air-cooled sections
Ducted horizontal installation with power from 20 up to 39,5 kW

R410A



DXE 20E



DXE 25E



DXE 30E



Wired control panel



Remote control



DXE 40E



DXE 20CT
DXE 25CT



DXE 30CT



DXE 40CT

Features

- R410A refrigerant gas
- Heat Pump
- Auto-Restart (function can be deactivated)
- Condensate control device for functioning in cooling mode with external temperature to -15°C, as per standard

Indoor unit (DXE E):

- Ducted unit for horizontal installation
- The units have two air probes: one on the wired control panel and one on the internal unit return. Can be selected from the wired panel
- Metal cabinet in galvanised sheet steel
- Double intake centrifugal fans single speed
- Regenerative air filter
- Infrared ray remote control with liquid crystal display wired control panel for checking all functions
- Liquid crystal display wired control panel for checking all functions, infrared receiver and environment temperature probe
- Microprocessor control

Outdoor unit (DXE CT):

- Metal protection cabinet with anti-corrosion paint
- Heat exchange coil in copper piping with aluminium louvers
- Helical fan coupled directly to the electric motor
- The maximum length of the chiller lines is 50 m and maximum difference in level 30 m

Technical data

DXE		20 CT	25 CT	30 CT	40 CT
DXE		20 E	25 E	30 E	40 E
Cooling capacity	kW	20	24,5	30	39,5
Total input power	kW	8,4	9,8	12,5	13,6
Maximum total current	A	15,3	22,2	27	37,8
Heating capacity	kW	22	27,5	33	42
Total input power	kW	7	9	10,5	11,8
Maximum total current	A	13,2	21,2	23	34
Power supply (outdoor unit)	V-Ph-Hz	400V 3N 50Hz	400V 3N 50Hz	400V 3N 50Hz	400V 3N 50Hz
Power supply (indoor unit)	V-Ph-Hz	400V 3N 50Hz	400V 3N 50Hz	400V 3N 50Hz	400V 3N 50Hz
Indoor unit air flow rate	m³/h	4000	4800	5500	7000
Useful static pressures	Pa	220	110	120	150
♪ Sound pressure (indoor unit)	dB (A)	65	54	54	58
♪♪ Sound pressure (outdoor unit)	dB (A)	65	64	67	69
Refrigerant gas load (R410A)	kg	5,3*	6,7*	9,5	12*
* Refrigerant gas top-up	g/m	54	54	120	170
Refrigerant lines	Ø (gas)	3/4"(19,05)	1"(25,4)	9/8"(28,6)	9/8"(28,6)
	Ø (liquid)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	5/8"(15,9)
Refrigerant fittings	Ø (gas)	3/4"(19,05)	1"(25,4)	9/8"(28,6)	9/8"(28,6)
	Ø (liquid)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	5/8"(15,9)

The performance refers to the following conditions:

♪ Sound pressure measures in a semianechoic chamber, under the unit, at r=1,4m

♪♪ Sound pressure measures in a semianechoic chamber at 1m from the front

* =for lines up to 7.5m; over perform top-up

■ Cooling:

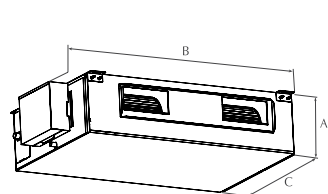
- Room air temperature 27°C D.B. ; 19°C W.B.
- External air temperature 35°C

■ Heating:

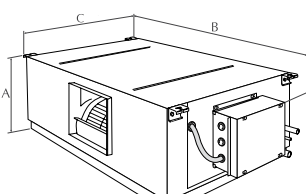
- Environmental air temperature 20°C
- External air temperature 7°C D.B. ; 6°C W.B.

Dimensional data (mm)

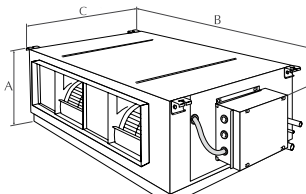
INDOOR UNIT



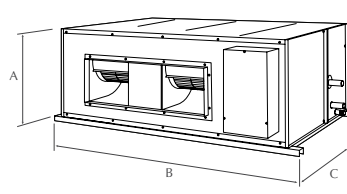
DXE 20E



DXE 25E

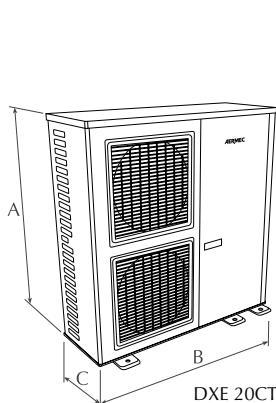


DXE 30E

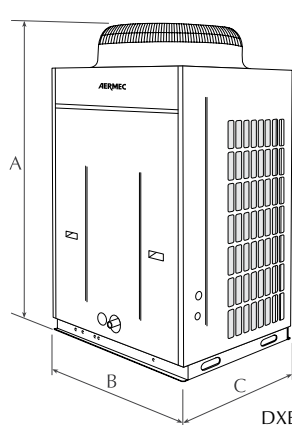


DXE 40E

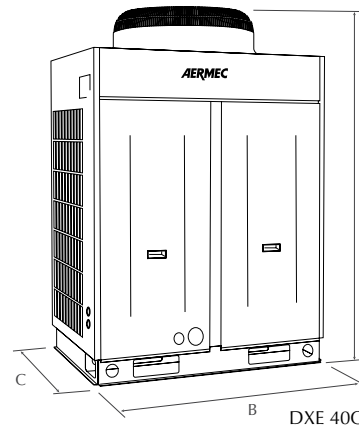
OUTDOOR UNIT



DXE 20CT
DXE 25CT



DXE 30CT



DXE 40CT

		20 E	25 E	DXE 30 E	40 E	20 CT	25 CT	DXE 30 CT	40CT
Height	A	389	500	500	650	1350	1600	1772	1772
Width	B	1463	1745	1745	1700	1150	1150	990	1290
Depth	C	799	1116	1116	1100	460	460	880	800
Weight	kg	86	150	170	215	158	185	218	285

Maximum clearance

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Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. +39 04 42 63 31 11 - Telefax +39 044 29 35 66
www.aermec.com

R410A

INVERTER
 TECHNOLOGY



Seasonal Energy Efficiency
 See Technical data



Regulation (EU) N. 206/2012
 Delegated Regulation (EU) N. 626/2011



MKM_C
 MKM_CS



Controller



MKM_WS



MKM_W



MKM_F



Controller



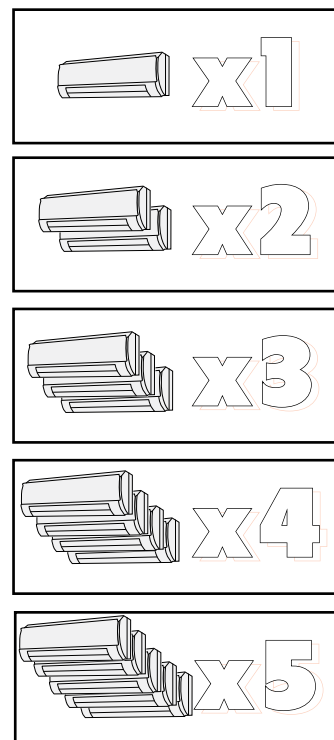
Wired panel



MKM_D



MKM



= MKM_W
 MKM_WS
 MKM_C
 MKM_CS
 MKM_D
 MKM_F

Characteristics

Dualsplit:

- External units MKM42-52-72 connected to 1 or 2 internal units

Trisplit:

- External unit MKM73 connected to 2 or 3 internal units

Quadrisplit:

- External units MKM84 and MKM104 connected to 2, 3 or 4 internal units

Pentasplit:

- External unit MKM125 connected to 3, 4 or 5 internal units

Internal unit choices from:

- Wall (Wall mounted)**
 with remote controller:
 MKM 20W - 25W - 35W - 50W
 MKM 20WS - 25WS - 35WS - 50WS
- Cassette 600x600 (False ceiling mounted)**
 with remote controller and wired panel:
 MKM35CS - 50CS
 (it is required to connect with accessory MKMGL40S)
- Cassette 840x840 (False ceiling mounted)**
 with remote controller and wired panel:
 MKM35C - 50C - 70C
 (it is required to connect with accessory MKMGL40)

Floor Ceiling (Wall or ceiling mounted)

- with remote controller and wired panel:
 MKM25F - 35F - 50F - 70F

Ducted (Horizontal installation)

- with remote controller and wired panel:
 MKM25D - 35D - 50D - 60D - 70D
 Nominal head 10Pa (450m³/h)

- Refrigerant R410A
- DC Inverter rotary compressor for higher energy savings and for optimised ambient conditions
- Internal unit with three speed fan
- External unit multi-speed single fan
- Rotary compressor with variable speed
- Horizontally adjustable air discharge louvres (MKM_W, MKM_WS, MKM_C, MKM_CS, MKM_F)
- Motorised deflector louvres for vertical adjustment of discharge air (MKM_W, MKM_WS, MKM_C, MKM_CS, MKM_F)
- Air ioniser standard for wall mounted units (MKM_W, MKM_WS)
- Extremely low noise operation
- Infrared remote controller with liquid crystal display to control all functions
- Wired panel with liquid crystal display and Soft Touch buttons to control all functions (MKM_C, MKM_CS, MKM_D, MKM_F)

- Microprocessor control
- Possibility to set the ambient temperature sensor in the intake of the internal unit or in the wired panel (MKM_C, MKM_CS, MKM_D, MKM_F)
- Timer for programming switch on and/or off
- Operating modes: Cooling, Heating, Dehumidification, Automatic or Ventilation Only
- Auto-diagnostic function
- Air filter easily removed and cleaned
- Efficient defrost control
- Condensate discharge pump standard in versions MKM_CS, MKM_C and MKM_D
- Flare type refrigerant connections
- Multi-line refrigerant connection system, where each internal unit is connected to the external unit through dedicated refrigerant lines
- Total refrigerant line length:
 up to 20m for the external units MKM52 and MKM72
 up to 70m for the external units MKM73, MKM84 and MKM104
 up to 80m for the external unit MKM125

Accessories

- **MKMGL40S:** (600x600) motorised. Fitted with infrared receiver and and MKM_CS are shipped without.
MKMGL40: (840x840) emergency operation button.
Supply and return air grille. Supply grilles are Is a required accessory as the units MKM_C

Mod.	MKM35CS	MKM50CS	MKM35C	MKM50C	MKM70C
MKMGL40S	✓	✓			
MKMGL40			✓	✓	✓

Combination of internal units permitted

internal unit MKM_C - MKM_CS - MKM_D - MKM_F - MKM_W - MKM_WS:

Dualsplit: possible installation of 1 or 2 internal units								
External unit Dualsplit MKM42 (14kBtu/h)			External unit Dualsplit MKM52 (18kBtu/h)			External unit Dualsplit MKM72 (24kBtu/h)		
Totale (k)	Unità A	Unità B	Totale (k)	Unità A	Unità B	Totale (k)	Unità A	Unità B
7	20 (7k)	-	7	20 (7k)	-	14	20 (7k)	20 (7k)
9	25 (9k)	-	9	25 (9k)	-	16	20 (7k)	25 (9k)
12	35 (12k)	-	12	35 (12k)	-	18	25 (9k)	25 (9k)
14	20 (7k)	20 (7k)	14	20 (7k)	20 (7k)	19	20 (7k)	35 (12k)
16	20 (7k)	25 (9k)	16	20 (7k)	25 (9k)	21	25 (9k)	35 (12k)
18	25 (9k)	25 (9k)	18	25 (9k)	25 (9k)	24	35 (12k)	35 (12k)
19	20 (7k)	35 (12k)	19	20 (7k)	35 (12k)	25	20 (7k)	50 (18k)
21	25 (9k)	35 (12k)	21	25 (9k)	35 (12k)	27	25 (9k)	50 (18k)
						30	35 (12k)	50 (18k)

Trisplit: it is required to install at least 2 internal units for correct system operation

External unit Trisplit MKM73 (24k)							
Total (k)	Unit A	Unit B	Unit C	Total (k)	Unit A	Unit B	Unit C
14	20 (7k)	20 (7k)	-	25	20 (7k)	25 (9k)	25 (9k)
16	20 (7k)	25 (9k)	-	26	20 (7k)	20 (7k)	35 (12k)
18	25 (9k)	25 (9k)	-	27	25 (9k)	25 (9k)	25 (9k)
19	20 (7k)	35 (12k)	-	28	20 (7k)	25 (9k)	35 (12k)
21	25 (9k)	35 (12k)	-	30	25 (9k)	25 (9k)	35 (12k)
24	35 (12k)	35 (12k)	-	31	20 (7k)	35 (12k)	35 (12k)
25	20 (7k)	50 (18k)	-	32	20 (7k)	20 (7k)	50 (18k)
27	25 (9k)	50 (18k)	-	33	25 (9k)	35 (12k)	35 (12k)
30	35 (12k)	50 (18k)	-	34	20 (7k)	25 (9k)	50 (18k)
36	50 (18k)	50 (18k)	-	36	25 (9k)	25 (9k)	50 (18k)
21	20 (7k)	20 (7k)	20 (7k)	36	35 (12k)	35 (12k)	35 (12k)
23	20 (7k)	20 (7k)	25 (9k)				

Quadrisplit: it is required to install at least 2 internal units for correct system operation

External unit Quadrisplit MKM84 (28k)									
Total (k)	Unit A	Unit B	Unit C	Unit D	Total (k)	Unit A	Unit B	Unit C	Unit D
14	20 (7k)	20 (7k)	-	-	34	20 (7k)	25 (9k)	50 (18k)	-
16	20 (7k)	25 (9k)	-	-	36	25 (9k)	25 (9k)	50 (18k)	-
18	25 (9k)	25 (9k)	-	-	36	35 (12k)	35 (12k)	35 (12k)	-
19	20 (7k)	35 (12k)	-	-	37	20 (7k)	35 (12k)	50 (18k)	-
21	25 (9k)	35 (12k)	-	-	39	25 (9k)	35 (12k)	50 (18k)	-
24	35 (12k)	35 (12k)	-	-	42	35 (12k)	35 (12k)	50 (18k)	-
25	20 (7k)	50 (18k)	-	-	28	20 (7k)	20 (7k)	20 (7k)	25 (9k)
27	25 (9k)	50 (18k)	-	-	30	20 (7k)	20 (7k)	25 (9k)	25 (9k)
30	35 (12k)	50 (18k)	-	-	32	20 (7k)	20 (7k)	25 (9k)	25 (9k)
36	50 (18k)	50 (18k)	-	-	33	20 (7k)	20 (7k)	20 (7k)	35 (12k)
21	20 (7k)	20 (7k)	20 (7k)	-	34	20 (7k)	25 (9k)	25 (9k)	25 (9k)
23	20 (7k)	20 (7k)	25 (9k)	-	35	20 (7k)	20 (7k)	25 (9k)	35 (12k)
25	20 (7k)	25 (9k)	25 (9k)	-	36	25 (9k)	25 (9k)	25 (9k)	25 (9k)
26	20 (7k)	20 (7k)	35 (12k)	-	37	20 (7k)	25 (9k)	25 (9k)	35 (12k)
27	25 (9k)	25 (9k)	25 (9k)	-	38	20 (7k)	20 (7k)	35 (12k)	35 (12k)
28	20 (7k)	25 (9k)	35 (12k)	-	39	20 (7k)	20 (7k)	20 (7k)	50 (18k)
30	25 (9k)	25 (9k)	35 (12k)	-	39	25 (9k)	25 (9k)	25 (9k)	35 (12k)
31	20 (7k)	35 (12k)	35 (12k)	-	40	20 (7k)	25 (9k)	35 (12k)	35 (12k)
32	20 (7k)	20 (7k)	50 (18k)	-	41	20 (7k)	20 (7k)	25 (9k)	50 (18k)
33	25 (9k)	35 (12k)	35 (12k)	-	42	25 (9k)	25 (9k)	35 (12k)	35 (12k)

External unit Quadrisplit MKM104 (36k)

Total connectable power of the external unit between 50% and 150% of its nominal power (36k)

Pentasplit: it is required to install at least 2 internal units for correct system operation

External unit Pentasplit MKM125 (42k)

Total connectable power of the external unit between 50% and 150% of its nominal power (42k)

Technical data

External Unit			MKM42	MKM52	MKM72	MKM73	MKM84	MKM104	MKM125
Cooling capacity	W		4100	5000	7000	7100	8000	10000	12100
		(min)	2050	2050	2200	2200	2200	2100	3500
		(max)	4500	6200	10000	10000	10000	11000	13600
Power input	W		1200	1550	2460	2250	2490	3750	3590
		(min)	500	500	650	650	650	700	1300
		(max)	1500	2550	4550	4550	4550	3900	4900
SEER			5,6	5,6	5,8	5,1	5,1	5,1	-
Energy efficiency class			A+	A+	A	A	A	A	-
Heating capacity	W		4500	5600	7700	8500	9300	11000	13000
		(min)	2500	2500	3600	3600	2880	2600	4500
		(max)	5000	6650	11000	11000	11000	13000	14000
Power input	W		1150	1550	2560	2350	2580	3800	3540
		(min)	580	580	980	980	980	1300	1300
		(max)	1500	2700	3950	3950	3950	3900	4400
SCOP			3,8	3,8	3,8	3,8	3,8	3,8	-
Energy efficiency class			A	A	A	A	A	A	-
Power input nominal*	W		1500	2700	4550	4550	4550	4880	5300
Compressor			Rotary DC Inverter						
♪ Sound pressure	dB(A)		55	57	58	58	59	54	54
Max number of connected units	n.		2	2	2	3	4	4	5
Power supply			230V ~ 50Hz						

♪ Sound pressure measured at 1m distance from front in semi-anechoic chamber

* In accordance with Standard EN-60335

Performances in accordance with Standards EN-14511 and EN-14825

Cooling:			Heating:		
- Ambient air temperature	27°C db ; 19°C wb		- Ambient air temperature	20°C	
- External air temperature	35°C		- External air temperature	7°C db ; 6°C wb	
- Maximum speed			- Maximum speed		
- Refrigerant line length	5m		- Refrigerant line length	5m	

EXTERNAL UNIT					
	MKM72	MKM73	MKM84	MKM104	MKM125
with adaptor 1	9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 12,7 (1/2")	6,35 (1/4") → 9,52 (3/8")	6,35 (1/4") → 9,52 (3/8")
with adaptor 2		9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 6,35 (1/4")	6,35 (1/4") → 9,52 (3/8")
with adaptor 3				9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 6,35 (1/4")
with adaptor 4				9,52 (3/8") → 12,7 (1/2")	9,52 (3/8") → 12,7 (1/2")
with adaptor 5				12,7 (1/2") → 9,52 (3/8")	12,7 (1/2") → 9,52 (3/8")
with adaptor 6				12,7 (1/2") → 15,9 (5/8")	12,7 (1/2") → 9,52 (3/8")
with adaptor 7				15,9 (5/8") → 9,52 (3/8")	12,7 (1/2") → 15,9 (5/8")
with adaptor 8					12,7 (1/2") → 15,9 (5/8")
with adaptor 9					15,9 (5/8") → 9,52 (3/8")
with adaptor 10					15,9 (5/8") → 12,7 (1/2")

INTERNAL UNIT - WALL				
Model	MKM20W	MKM25W	MKM35W	MKM50W
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Gas connection / LINE	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
Model	MKM20WS	MKM25WS	MKM35WS	MKM50WS
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Gas connection / LINE	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

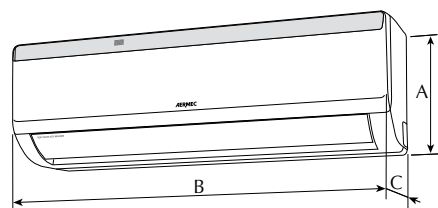
INTERNAL UNIT - DUCTED					
Model	MKM25D	MKM35D	MKM50D	MKM60D	MKM70D
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")
Gas connection / LINE	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")

INTERNAL UNIT - CASSETTE 600x600		
Model	MKM35CS	MKM50CS
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")
Gas connection / LINE	9,52 (3/8")	12,7 (1/2")

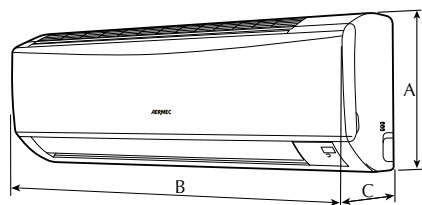
INTERNAL UNIT - CASSETTE 840x840			
Model	MKM35C	MKM50C	MKM70C
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
Gas connection / LINE	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")

INTERNAL UNIT - FLOOR CEILING			
Model	MKM25F	MKM35F	MKM50F
Liquid connection / LINE	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Gas connection / LINE	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

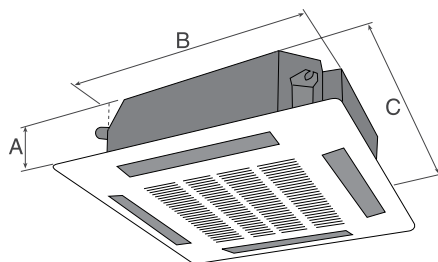
Dimensional data (mm)



MKM_W

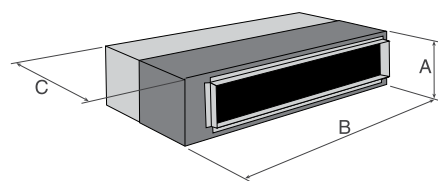


MKM_WS

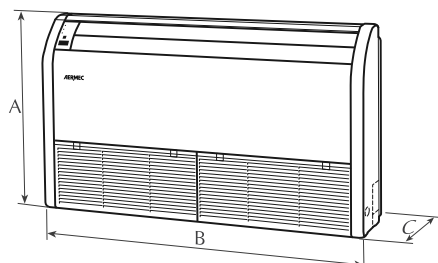


MKM_C
MKMGL40

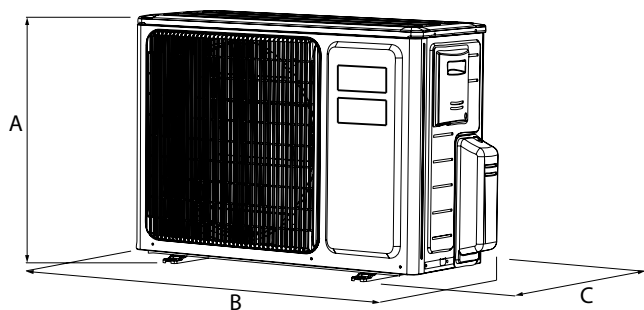
MKM_CS
MKMGL40S



MKM_D



MKM_F



MKM

	A (mm)	B (mm)	C (mm)	Weight (kg)
MKM20W	265	794	186	9
MKM25W	265	794	186	9
MKM35W	275	845	180	10
MKM50W	298	945	208	13
MKM20WS	283	770	201	8
MKM25WS	283	770	201	8
MKM35WS	305	865	215	9
MKM50WS	315	1007	219	12
MKM35CS*	230	600	600	18
MKM50CS*	230	600	600	18
MKMGL40S	50	650	650	5
MKM35C**	190	840	840	25
MKM50C**	190	840	840	25
MKM70C**	240	840	840	30
MKMGL40	50	950	950	5
MKM25D	200	782	635	22
MKM35D	200	782	635	24
MKM50D	200	982	635	25
MKM60D	200	1182	635	29
MKM70D	200	1182	635	29
MKM25F	700	1220	225	40
MKM35F	700	1220	225	40
MKM50F	700	1220	225	40
MKM70F	700	1220	225	45
MKM42	596	903	378	43
MKM52	700	955	396	50
MKM72	790	980	427	63
MKM73	790	980	427	64
MKM84	790	980	427	65
MKM104	1103	1087	440	102
MKM125	1103	1087	440	102

* Requires grille MKMGL40S (650x650mm)

** Requires grille MKMGL40 (950x950mm)

MDW R410A

Multisplit heat pumps with heat recovery
for hot domestic water production
Variable refrigerant flow system (VRF)
with inverter power input from 10 to 16 kW



MDW



Wired panel for MDW HB



MDW HB



HBI WT / WTS

Direct expansion indoor units



MDS WN



MDS F



MDS DH



Wired panel



Remote control



MDS C



MDS CS

Features

- **RNY01 or RNY11**: Y-branch. The accessory is composed of two Y-branches, one for the liquid line and one for the discharge line.
Mandatory accessory
- **MDW HB**: hydronic module for the production of hot water. Internal installation with 5kW or 8kW power
Mandatory accessory
- **HBI WT**: • HBI_WT: 200, 300, 350, 400 litre DHW Storage Tank with main coil and 3kW electric support resistance
 - Magnesium sacrificial anode
 - Stainless steel tank and coil
 - Outdoor covering in painted sheet steel and heat insulation material, thickness 50mm
 - Indoor installation**Mandatory accessory (as an alternative to**

HBI WTS)

- HBI_WTS: 200, 300, 350, 400 litre DHW Storage Tank with main coil, integrative coil and 3kW electric support resistance
 - Magnesium sacrificial anode
 - Stainless steel tank and coil
 - Outdoor covering in painted sheet steel and heat insulation material, thickness 50mm
 - Indoor installation**Mandatory accessory (as an alternative to**
- **HBI WT)**
 - **MDSGL40S**: air delivery and recovery grille for internal Cassette-type units
Mandatory accessory for MDS CS
 - **MDSGL40**: air delivery and recovery grille for internal Cassette-type units
Mandatory accessory for MDS C

- **ECD**: remote contact kit. Allows the direct expansion indoor units to be switched on/off via an external contact
- **MDSCC1**: centralised command for handling up to 64 communication modules (MDSCM1 accessory), for a maximum of 64 outdoor units
- **MDSCM1**: communication module
- **MDSRC**: simplified control panel for centralised command. Allows the direct expansion indoor units to be controlled either individually or in groups
- **MDSR**: signal repeater. Necessary if the communication cables are more than 1000 metres long

Accessories

- RNY01 or RNY11: Y-branch. The accessory is composed of two Y-branches, one for the liquid line and one for the discharge line.
Mandatory accessory
- MDW HB: hydronic module for the production of hot water. Internal installation with 5kW or 8kW power
Mandatory accessory
- HBI WT: • HBI_WT: 200, 300, 350, 400 litre DHW Storage Tank with main coil and 3kW electric support resistance
 - Magnesium sacrificial anode
 - Stainless steel tank and coil
 - Outdoor covering in painted sheet steel and heat insulation material, thickness 50mm
 - Indoor installation**Mandatory accessory (as an alternative to**

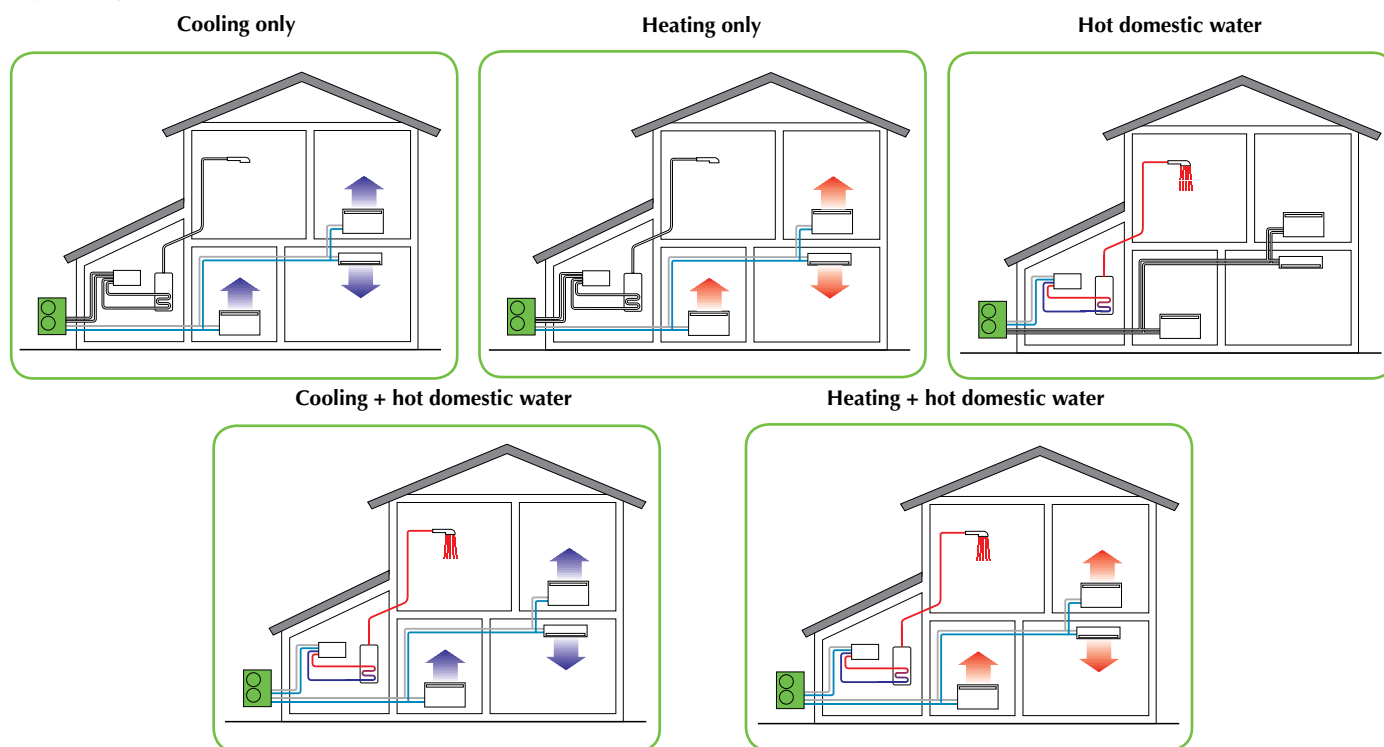
HBI WTS)

- HBI_WTS: 200, 300, 350, 400 litre DHW Storage Tank with main coil, integrative coil and 3kW electric support resistance
 - Magnesium sacrificial anode
 - Stainless steel tank and coil
 - Outdoor covering in painted sheet steel and heat insulation material, thickness 50mm
 - Indoor installation**Mandatory accessory (as an alternative to**
- **HBI WT)**
 - **MDSGL40S**: air delivery and recovery grille for internal Cassette-type units
Mandatory accessory for MDS CS
 - **MDSGL40**: air delivery and recovery grille for internal Cassette-type units
Mandatory accessory for MDS C

- ECD: remote contact kit. Allows the direct expansion indoor units to be switched on/off via an external contact
- MDSCC1: centralised command for handling up to 64 communication modules (MDSCM1 accessory), for a maximum of 64 outdoor units
- MDSCM1: communication module
- MDSRC: simplified control panel for centralised command. Allows the direct expansion indoor units to be controlled either individually or in groups
- MDSR: signal repeater. Necessary if the communication cables are more than 1000 metres long

	Compatibility				
	MDW50HB	MDW80HB	HBI200WT/WTS	HBI300WT/WTS	HBI350WT/WTS
MDW100	✓		✓	✓	
MDW120	✓		✓	✓	
MDW140		✓		✓	✓
MDW160		✓		✓	✓

Operating mode



Cooling only:

- outside air temp. from -5°C D.B. to 48°C D.B..

Heating only:

- outside air temp. from -20°C D.B. to 24°C D.B.

Cooling + hot domestic water:

- outside air temp. from -5°C D.B. to 43°C D.B.
- accumulation water temp. from 35°C to 58°C*

Heating + hot domestic water:

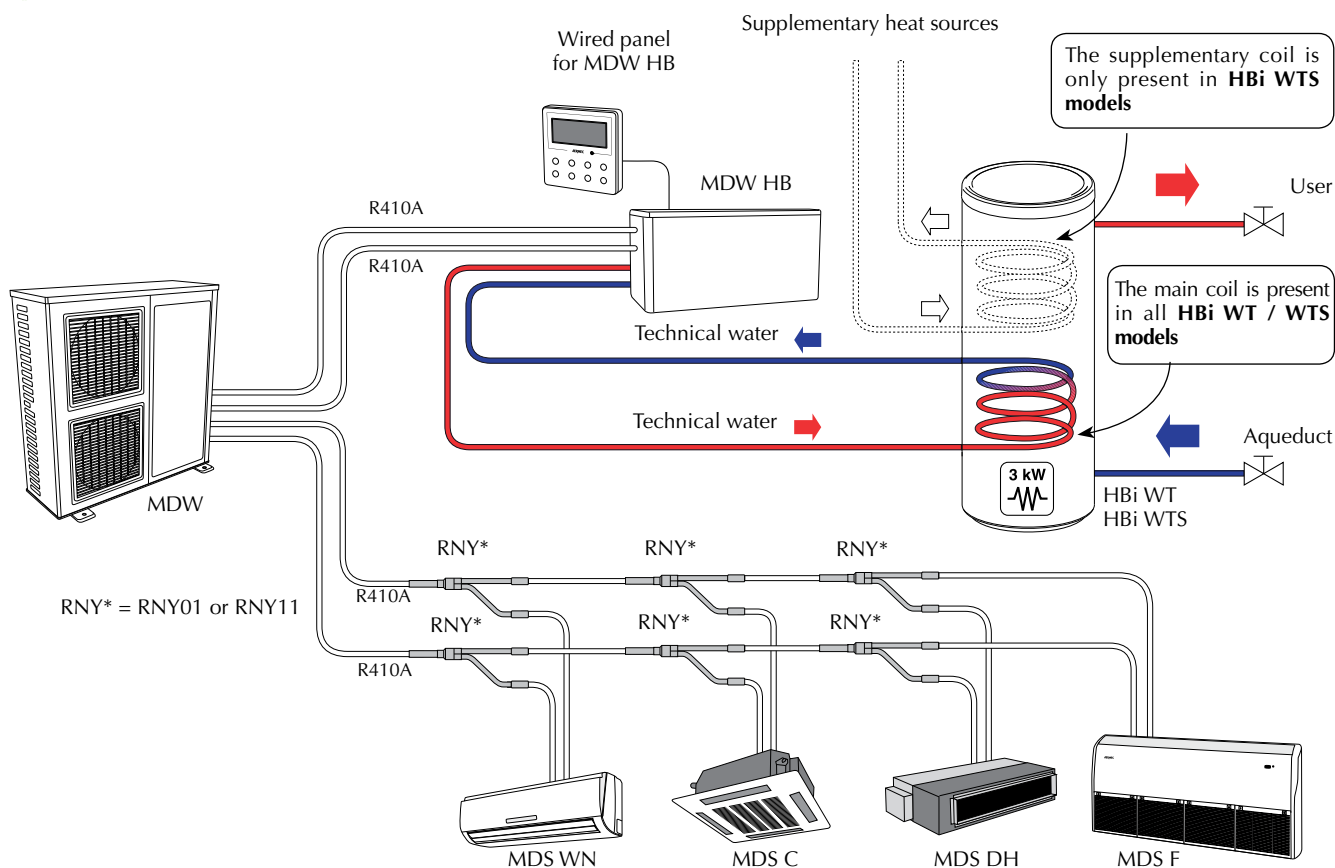
- outside air temp. from -15°C D.B. to 24°C D.B.
- accumulation water temp. from 35°C to 58°C*

Hot domestic water only:

- outside air temp. from -15°C D.B. to 43°C D.B.
- accumulation water temp. from 35°C to 58°C* a 58°C*

* The maximum temperature that can be set from the wired panel (MDW HB) is 58°C. It is, however, possible - via a combination of keys - to modify the upper limit, bringing it from 58°C (default) to 65°C

Example of connection



Technical data of direct expansion indoor unit

Internal units	MDS	22WN	28WN	36WN	45WN	50WN	56WN
Cooling capacity	W	2200	2800	3600	4500	5000	5600
Heating capacity	W	2500	3200	4000	5000	5800	6300
Air flow	m ³ /h	360	360	500	500	700	750
Moisture removed	l/h	1	1	1.2	1.2	2	2
Total power input	W	32	32	48	48	56	58
🎵 Sound pressure (min)	dB (A)	28	28	32	32	38	40
🎵 Sound pressure (max)	dB (A)	31	31	35	35	42	45
Cooling connections	Ø liquid	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")
	Ø gas	9.52(3/8")	9.52(3/8")	12.7(1/2")	12.7(1/2")	12.7(1/2")	15.9(5/8")
	Type	flare	flare	flare	flare	flare	flare

Internal units	MDS	28CS	36CS	45CS
Cooling capacity	W	2800	3600	4500
Heating capacity	W	3200	4000	5000
Air flow	m ³ /h	600	600	600
Moisture removed	l/h	0.8	0.8	1.2
Total power input	W	12	12	12
🎵 Sound pressure (max)	dB (A)	47	47	47
Cooling connections	Ø liquid	6.35(1/4")	6.35(1/4")	6.35(1/4")
	Ø gas	9.52(3/8")	12.7(1/2")	12.7(1/2")
	Type	flare	flare	flare

Internal unit	MDS	28C	36C	45C	50C	56C	71C	90C	112C
Cooling capacity	W	2800	3600	4500	5000	5600	7100	9000	11200
Heating capacity	W	3200	4000	5000	5500	6300	8000	10000	12500
Air flow	m ³ /h	680	680	680	680	1180	1180	1860	1860
Moisture removed	l/h	0.8	0.8	1.2	1.2	1.9	1.9	2.7	2.7
Total power input	W	60	60	65	65	83	83	133	133
🎵 Sound pressure (min)	dB (A)	34	34	34	34	35	35	36	36
🎵 Sound pressure (max)	dB (A)	37	37	37	37	39	39	40	40
Cooling connections	Ø liquid	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")	9.52(3/8")	9.52(3/8")	9.52(3/8")
	Ø gas	9.52(3/8")	12.7(1/2")	12.7(1/2")	12.7(1/2")	15.9(5/8")	15.9(5/8")	15.9(5/8")	15.9(5/8")
	Type	flare	flare	flare	flare	flare	flare	flare	flare

Internal unit	MDS	28F	36F	50F	71F	112F
Cooling capacity	W	2800	3600	5000	7100	11200
Heating capacity	W	3200	4000	5800	8000	12500
Air flow	m3/h	550	600	700	1170	2200
Total power input	W	19	19	75	185	280
🎵 Sound pressure (max)	dB (A)	37	38	47	50	53
Cooling connections	Ø liquid	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")	9.52(3/8")
	Ø gas	9.52(3/8")	12.7(1/2")	12.7(1/2")	15.9(5/8")	15.9(5/8")
	Type	flare	flare	flare	flare	flare

Internal units	MDS	22DH	28DH	36DH	45DH	56DH
Cooling capacity	W	2200	2800	3600	4500	5600
Heating capacity	W	2500	3200	4000	5000	6300
Air flow	m ³ /h	450	570	570	700	1000
Moisture removed	l/h	0.7	0.9	0.9	1.3	2.1
Total power input	W	85	90	90	150	240
🎵 Sound pressure	dB (A)	37	39	39	40	44
Cooling connections	Ø liquid	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")
	Ø gas	9.52(3/8")	9.52(3/8")	12.7(1/2")	12.7(1/2")	15.9(5/8")
	Type	flare	flare	flare	flare	flare

Indoor units	MDS	71DH	90DH	112DH	140DH
Cooling capacity	W	7100	9000	11200	14000
Heating capacity	W	8000	10000	12500	14500
Air flow	m ³ /h	1100	1700	1700	2000
Moisture removed	l/h	2.1	3	3	3
Total power input	W	240	360	360	500
🎵 Sound pressure	dB (A)	45	48	48	50
Cooling connections	Ø liquid	9.52(3/8")	9.52(3/8")	9.52(3/8")	9.52(3/8")
	Ø gas	15.9(5/8")	15.9(5/8")	15.9(5/8")	15.9(5/8")
	Type	flare	flare	flare	flare

Indoor unit power supply: 230V~50Hz

Performance values refer to the following conditions:

🎵 measured at 1m in semi-anechoic chamber

❄️ Cooling:

- room air temperature 27°C D.B. 19°C W.B.
- outside air temperature 35°C D.B.

🎵 measured at 1.4m in semi-anechoic chambe

🔥 Heating:

- room air temperature 20°C D.B.
- outside air temperature 7°C D.B. 6°C W.B.

Technical data for hot domestic water accumulation tank

Hot domestic water accumulation tank	HBi	200WT	200WTS	300WT	300WTS	350WT	350WTS	400WT	400WTS
Capacity	l	200	200	300	300	350	350	400	400
Electric resistor power	kW	3	3	3	3	3	3	3	3
Electric resistor input current	A	13	13	13	13	13	13	13	13
Power supply		230V ~ 50Hz							
User water connections (In / Out)	Ø	G1/2	G1/2	G1/2	G1/2	G1/2	G1/2	G1/2	G1/2
Main coil water connections (In / Out)	Ø	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Supplementary coil water connections (In / Out)	Ø	-	G3/4	-	G3/4	-	G3/4	-	G3/4
Supplementary coil	L	m	-	10	-	10	-	10	-
	Ø x s	mm	-	22 x 0.8	-	22 x 0.8	-	22 x 0.8	-

Technical data of the external units and hydronic modules

Outdoor units		MDW	100	120	140	160
Cooling capacity (nominal)		kW	10	12	14	16
Input power (nominal)		kW	4,5	5,0	5,5	5,9
Heating capacity (nominal)		kW	11	14	15,4	17,6
Input power (nominal)		kW	3,8	4,2	4,9	5,3
Max input power		kW	5,7	6,2	6,5	6,8
Total connectable power (min/max)		kW	8/13	8/13	8/16	8/16
Connectable direct expansion indoor units (min/max)		n°	2/6	2/7	2/7	2/7
Twin Rotary compressors		n°x Type	1 x DC Inverter	1 x DC Inverter	1 x DC Inverter	1 x DC Inverter
Fans		n°x Type	2 x DC Inverter	2 x DC Inverter	2 x DC Inverter	2 x DC Inverter
Sound pressure (max)		dB (A)	56	56	58	60
Refrigerant charge		Kg	5	5	7	7
Length of cooling lines (max)		m	150	150	150	150
Level difference of indoor unit / indoor unit (max)		m	10	10	10	10
Level difference of outdoor unit / indoor unit (max)	U. Outdoor unit higher	m	25	25	25	25
	U. Outdoor unit lower	m	20	20	20	20
Cooling connections (towards indoor units)		Ø liquid	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
		Ø gas	19,05 (3/4")	19,05 (3/4")	19,05 (3/4")	19,05 (3/4")
Cooling connections (towards MDW_HB)		Type	flare	flare	flare	flare
		Ø liquid	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Power supply		Ø gas	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
		Type	flare	flare	flare	flare

♪ measured at 1m at the front in semi-anechoic chamber

■ Cooling only:

- room air temperature 27°C D.B. 19°C W.B.
- outside air temperature 35°C D.B.

■ Heating only:

- room air temperature 20°C D.B.
- outside air temperature 7°C D.B. 6°C W.B.

Hot domestic water hydronic module		MDW	50HB	80HB
Heating capacity (nominal)*		kW	5	8
Technical water circulator	Capacity	l/min	16,7	16,7
	Head (max)	m	6	6
Total power input		W	80	80
Length of cooling lines (max)		m	10	10
Level difference of outdoor unit / hydronic module		m	5	5
Cooling connections towards outdoor unit		Ø liquid	12,7 (1/2")	12,7 (1/2")
		Ø gas	15,9 (5/8")	15,9 (5/8")
Water connections (In / Out)		Type	flare	flare
		Ø	G3/4	G3/4
Length of hydraulic lines Hydronic module / Tank (max)		m	5	5
Power supply			230V ~ 50Hz	230V ~ 50Hz

■ (*) Hot domestic water only:

- outside air temperature 20°C D.B. 15°C W.B.
- initial / final temperature of water in the accumulation tank 15°C / 55°C

Dimensional data (mm)

	A	B	C	Peso
	mm	mm	mm	kg
MDS DH	770	250	190	8
MDS F	770	250	190	8
MDS WN	830	285	189	11
MDW HB	830	285	189	11
MDS CS	1020	310	228	12
MDS C	1020	310	228	12
MDS22WN	770	250	190	8
MDS28WN	770	250	190	8
MDS36WN	830	285	189	11
MDS45WN	830	285	189	11
MDS50WN	1020	310	228	12
MDS56WN	1020	310	228	12
MDS28CS*	570	570	230	20
MDS36CS*	570	570	230	20
MDS45CS*	570	570	230	20
MDS28C**	840	840	190	25
MDS36C**	840	840	190	25
MDS45C**	840	840	190	25
MDS50C**	840	840	190	25
MDS56C**	840	840	240	30
MDS71C**	840	840	240	30
MDS90C**	840	840	320	38
MDS112C**	840	840	320	38
MDS28F	695	840	238	26
MDS36F	695	840	238	26
MDS50F	695	840	238	26
MDS71F	600	1300	188	32
MDS112F	695	1590	238	42
MDS22DH	880	665	250	29
MDS28DH	880	665	250	31
MDS36DH	880	665	250	31
MDS45DH	980	721	266	36
MDS56DH	1155	756	300	51
MDS71DH	1155	756	300	51
MDS90DH	1425	756	300	64
MDS112DH	1425	756	300	64
MDS140DH	1425	756	300	66
MDW100	1250	950	340	105
MDW120	1250	950	340	105
MDW140	1250	950	340	115
MDW160	1250	950	340	115
MDW50HB	250	650	300	25
MDW80HB	250	650	300	25
HBi200WT / WTS	1595	540	/	68/71
HBi300WT / WTS	1620	620	/	82/87
HBi350WT / WTS	1895	620	/	96/100
HBi400WT / WTS	2125	620	/	106/110

*: Grille dimensions MDSGL40S mm 650x650x50, Weight = 5kg

** : Grille dimensions MDSGL40 mm 950x950x60, Weight = 6.5kg

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

MVF—MDS

Multisplit heat pumps with Variable Refrigerant Flow System (VRF) with capacities from 10 up to 60 kW

R410A



MDS WN



MDS C



MDS F



MDS DH



Wire control panel



Infrared remote control



Silencer for MDS WN and MDS F



MVF100 - MVF120
MVF140 - MVF140T
MVF160T - MDS120



MDS260T
MDS300T



MDS450T



MDS560T
MDS600T

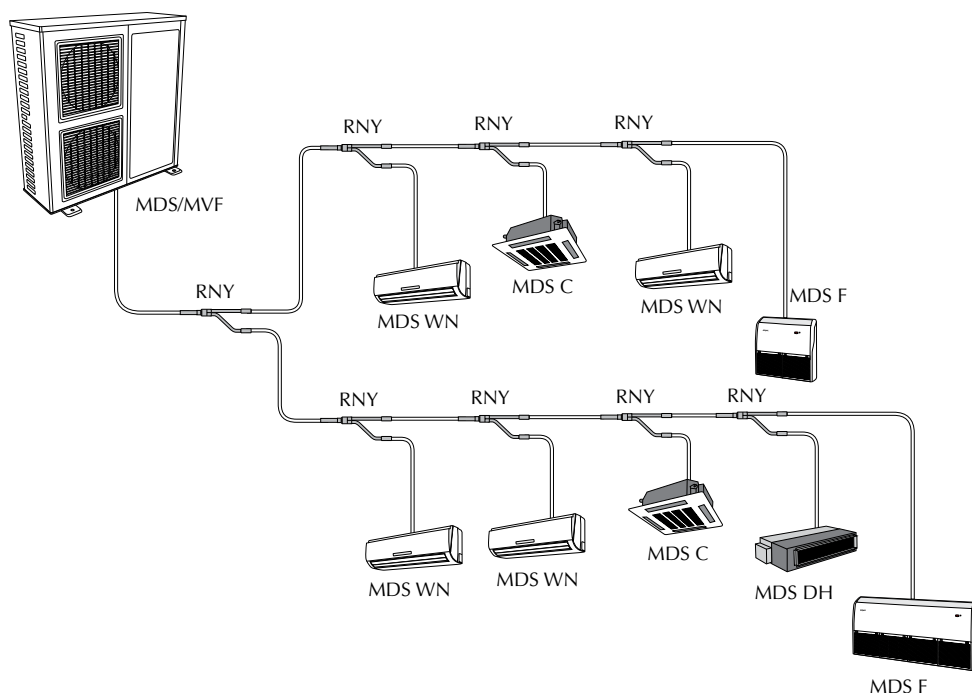
Characteristics

- Available in 6 versions of MDS condensing units and 5 versions of MDS condensing units MVF.
- Combination with different types of indoor units: wall (MDS WN), cassette (MDS C / CS), floor-ceiling (MDS F) and duct type (MDS DH)
- From 2 to 32 indoor units can be connected
- R410A refrigerant gas
- Total power connectable to the outdoor unit between 50% and 135% of its rated power
- Wire control panel standard on all indoor units
- Infrared remote control standard on all indoor units
- DC Inverter (MVF) and Digital scroll compressors (MDS) have been chosen to maximise efficiency, reduce consumption, and minimise peak absorption to efficiently check the oil return to the compressor, to optimize the ambient temperature and humidity
- MVF outdoor unit is equipped by two fans with Inverter AC motor variable speed.
- Microprocessor control
- In the MDS systems, the refrigerator connections are created using braze welded Y-shunts (supplied as a mandatory accessory), ensuring flexibility in the installation and full respect for the safety regulations, as well as lower environmental impact due to the absence of leaks
- Extremely quiet operation
- Air filter easy to remove and regeneratable
- Maximum length of refrigerant lines up to 150m for the MVF100, MVF120, MVF140, MVF140T, MVF160T units
- Maximum length of refrigerant lines up to 300m for the MDS120 units; up to 500m for the MDS260T, MDS 300T, MDS450T, MDS560T and MDS600T units
- Auto-Restart enabled by default if necessary disabled
- **Condensation control device as standard supply; enables operation even with low outdoor temperatures**

Accessories

- **RNY11:** Y-shunt for total installed power downstream less than or equal to 20 kW; the accessory is composed of two Y-shunts, one for the liquid line and one for the gas line.
- **RNY12:** Y-shunt for total installed power downstream greater than 20 kW but less than or equal to 30 kW; the accessory is composed of two Y-shunts, one for the liquid line and one for the gas line.
- **RNY21:** Y-shunt for total installed power downstream greater than 30 kW; the accessory is composed of two Y-shunts, one for the liquid line and one for the gas line.
- **MDSGL40S:** Air delivery/return grille. This is a mandatory accessory, as the MDS CS units are delivered without them.
- **MDSGL40:** Air delivery/return grille. This is a mandatory accessory, as the MDS C units are delivered without them.
- **MDSCC1:** Centralised control by means of which up to 64 communication modules (MDSCM1 accessory) can be handled, for a maximum of 64 outdoor units and 1024 indoor units.
- **MDSCM1:** Communication module. Up to 16 indoor units and the related outdoor unit can be connected to a mandatory module.
- **MDSR:** Signal repeater; necessary if the communication cables are more than 1000 metres long.
- **ECD:** Kit remote contact. Allows you to manage the on / off indoor units with direct expansion via external contact
- **MDSRC:** Simplified control panel for centralized control. Allows you to control the direct expansion indoor units individually or in groups

Connection examples



Technical data

Outdoor units		MVF 100	MVF 120	MVF 140	MVF 140T	MVF 160T	MDS 120	MDS 260T	MDS 300T	MDS 450T	MDS 560T	MDS 600T
Cooling capacity (nominal)	kW	10	12	14	14	16	12	26	30	45	56	60
Total absorbed power (nominal)	kW	2,86	3,50	4,36	4,50	5,10	3,9	8,5	9,0	14,5	18,5	19,2
EER	W/W	3,50	3,43	3,21	3,11	3,14	-	-	3,33	-	-	-
Heating capacity (nominal)	kW	11	14	15,4	15,4	17,6	14	28,5	33,5	48	60	63
Absorbed power (nominal)	kW	2,60	3,40	4,05	4,30	4,80	3,8	8,0	8,8	13,7	18	18,2
COP	W/W	4,23	4,12	3,80	3,58	3,67	-	-	3,8	-	-	-
Maximum absorbed power (1)	kW	5,9	6	6,1	6,1	6,6	6	15	15	20,3	28	30
Total input power (min/max)	kW	5/13,5	6/16,2	7/18,9	7/18,9	8/21,6	6/16,2	13/35,1	15/40,5	22,5/60,8	28/75,6	30/81
Max. number of units connectable	n.	6	7	8	8	9	7	16	16	16	32	32
Compressors	DC Inverter	1	1	1	1	1	--	--	--	--	--	--
	Digital Scroll	--	--	--	--	--	1	1	1	1	1	1
	Scroll	--	--	--	--	--	--	1	1	2	3	3
	On/Off	--	--	--	--	--	--	1	1	2	3	3
Air flow	m ³ /h	6000	6000	6000	6000	6000	5820	12000	12000	12000	20000	24000
Lung. max. linee	m	150	150	150	150	150	300	500	500	500	500	500
Max. height difference. (indoor-indoor unit)	m	10	10	10	10	10	10	15	15	15	15	15
Max. height difference (outdoor-outdoor unit)*2	m	30	30	30	30	30	30	50	50	50	50	50
Max. height difference (indoor-outdoor unit)**3	m	25	25	25	25	25	25	40	40	40	40	40
Fans	n.	2	2	2	2	2	2	1	1	1	2	2
♪ Sound pressure	dB (A)	58	58	58	58	60	58	58	58	60	60	60
Refrigerator connections	liquid Ø	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	12,7	15,9	15,9
	liquid (3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(1/2")	(5/8")	(5/8")
	gas Ø	15,9	15,9	15,9	15,9	19	15,9	22,2	22,2	28,6	28,6	28,6
	gas (5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(3/4")	(5/8")	(7/8")	(7/8")	(1" 1/8")	(1" 1/8")	(1" 1/8")
Feeding	Type	flare	flare	flare	flare	flare	flare	brazing	brazing	brazing	brazing	brazing
		230V~50Hz	230V~50Hz	230V~50Hz	400V~3N 50Hz	400V~3N 50Hz	230V~50Hz	3N~400V 50Hz	3N~400V 50Hz	3N~400V 50Hz	3N~400V 50Hz	3N~400V 50Hz

(1) = according to the Standard EN-60335

(2) = outdoor unit installed in a higher position than the indoor unit

(3) = outdoor unit installed in a lower position than the indoor unit

♪ misurata a 1 m frontale in camera semianecoica

♪ measured at 1 m frontal in semianechoic chamber.

■ Cooling:
 - room air temperature 27 °C D.B., 19 °C W.B.
 - outdoor air temperature 35 °C D.B.

■ Heating:
 - room air temperature 20 °C D.B.
 - outdoor air temperature 7 °C D.B., 6 °C W.B.

Technical data

Indoor units	MDS	22WN	28WN	36WN	45WN	50WN	56WN
Cooling capacity	W	2200	2800	3600	4500	5000	5600
Heating capacity	W	2500	3200	4000	5000	5800	6300
Air flow	m ³ /h	360	360	500	500	700	750
Moisture removed	l/h	1	1	1,2	1,2	2	2
Total absorbed power	W	32	32	48	48	56	58
♪ Sound pressure (min.)	dB (A)	28	28	32	32	38	40
♪ Sound pressure (max.)	dB (A)	31	31	35	35	42	45
Refrigerator connections	Ø liquid	6,35(1/4")	6,35(1/4")	6,35(1/4")	6,35(1/4")	6,35(1/4")	9,52(3/8")
	Ø gas	9,52(3/8")	9,52(3/8")	12,7(1/2")	12,7(1/2")	12,7(1/2")	15,9(5/8")
	Type	flare	flare	flare	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

Indoor units	MDS	28C	36C	45C	50C	56C	71C	90C	112C
Cooling capacity	W	2800	3600	4500	5000	5600	7100	9000	11200
Heating capacity	W	3200	4000	5000	5500	6300	8000	10000	12500
Air flow	m ³ /h	680	680	680	680	1180	1180	1860	1860
Moisture removed	l/h	0,8	0,8	1,2	1,2	1,9	1,9	2,7	2,7
Total absorbed power	W	60	60	65	65	83	83	133	133
♪ Sound pressure (min.)	dB (A)	34	34	34	34	35	35	36	36
♪ Sound pressure (max.)	dB (A)	37	37	37	37	39	39	40	40
Refrigerator connections	Ø liquid	6,35(1/4")	6,35(1/4")	6,35(1/4")	6,35(1/4")	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")
	Ø gas	9,52(3/8")	12,7(1/2")	12,7(1/2")	12,7(1/2")	15,9(5/8")	15,9(5/8")	15,9(5/8")	15,9(5/8")
	Type	flare	flare	flare	flare	flare	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

Indoor units	MDS	28CS	36CS	45CS
Cooling capacity	W	2800	3600	4500
Heating capacity	W	3200	4000	5000
Air flow	m ³ /h	600	600	600
Moisture removed	l/h	0,8	0,8	1,2
Total absorbed power	W	12	12	12
♪ Sound pressure (max.)	dB (A)	47	47	47
Refrigerator connections	Ø liquid	6,35(1/4")	6,35(1/4")	6,35(1/4")
	Ø gas	9,52(3/8")	12,7(1/2")	12,7(1/2")
	Type	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

Indoor units	MDS	28F	36F	50F	71F	112F
Cooling capacity	W	2800	3600	5000	7100	11200
Heating capacity	W	3200	4000	5800	8000	12500
Air flow	m ³ /h	550	600	700	1170	2200
Total absorbed power	W	19	19	75	185	280
♪ Sound pressure (max.)	dB (A)	37	38	47	50	53
Refrigerator connections	Ø liquid	6,35(1/4")	6,35(1/4")	6,35(1/4")	9,52(3/8")	9,52(3/8")
	Ø gas	9,52(3/8")	12,7(1/2")	12,7(1/2")	15,9(5/8")	15,9(5/8")
	Type	flare	flare	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

Indoor units	MDS	22DH	28DH	36DH	45DH	56DH
Cooling capacity	W	2200	2800	3600	4500	5600
Heating capacity	W	2500	3200	4000	5000	6300
Air flow	m ³ /h	450	570	570	700	1000
Moisture removed	l/h	0,7	0,9	0,9	1,3	2,1
Total absorbed power	W	85	90	90	150	240
♪ Sound pressure	dB (A)	37	39	39	40	44
Refrigerator connections	Ø liquid	6,35(1/4")	6,35(1/4")	6,35(1/4")	6,35(1/4")	9,52(3/8")
	Ø gas	9,52(3/8")	9,52(3/8")	12,7(1/2")	12,7(1/2")	15,9(5/8")
	Type	flare	flare	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

Indoor units	MDS	71DH	90DH	112DH	140DH
Cooling capacity	W	7100	9000	11200	14000
Heating capacity	W	8000	10000	12500	14500
Air flow	m ³ /h	1100	1700	1700	2000
Moisture removed	l/h	2,1	3	3	3
Total absorbed power	W	240	360	360	500
♪ Sound pressure	dB (A)	45	48	48	50
Refrigerator connections	Ø liquid	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")
	Ø gas	15,9(5/8")	15,9(5/8")	15,9(5/8")	15,9(5/8")
	Type	flare	flare	flare	flare
Feeding		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz

The performance data refer to the following conditions:

♪ measured at 1 m in semianechoic chamber

♪ measured at 1.4 m in semianechoic chamber

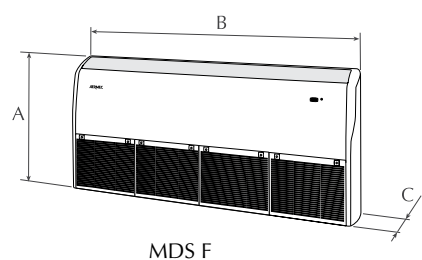
■ Cooling:

- room air temperature 27 °C D.B., 19 °C W.B.
- outdoor air temperature 35 °C D.B.

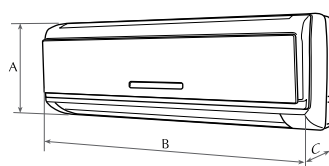
■ Heating:

- room air temperature 20 °C D.B.
- outdoor air temperature 7 °C D.B., 6 °C W.B

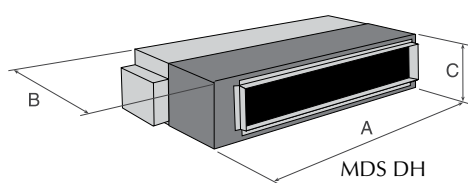
Dimensional data (mm)



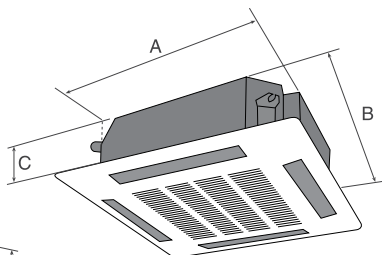
MDS F



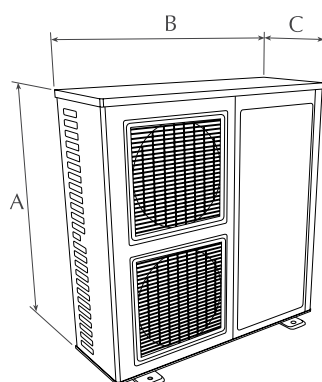
MDS WN



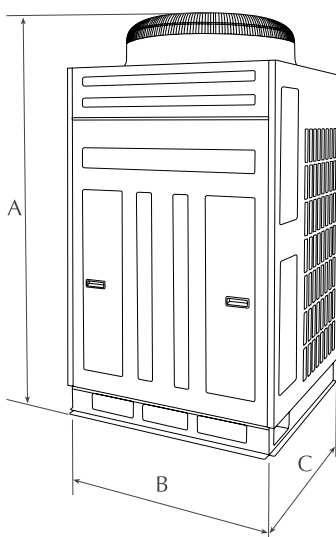
MDS DH



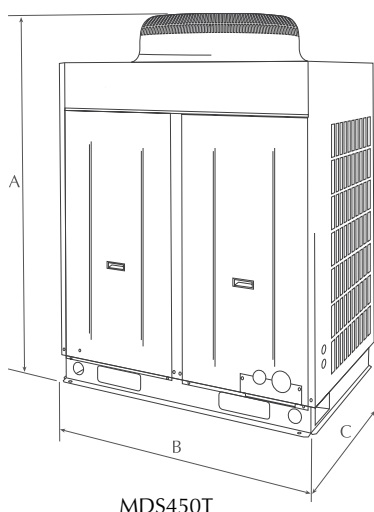
MDS CS / C



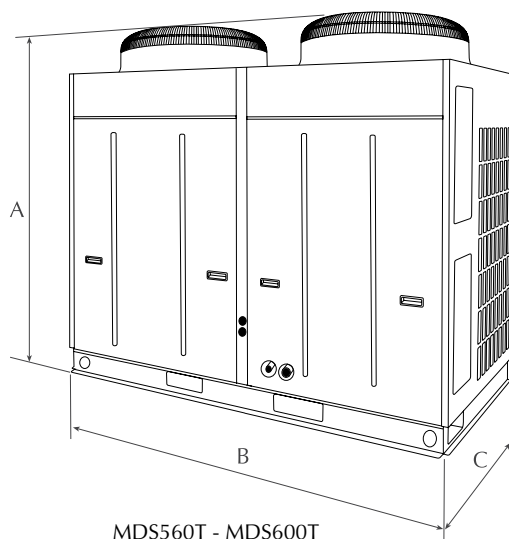
MVF100 - MVF120
MVF140 - MVF140T
MVF160T
MDS120



MDS260T - MDS300T



MDS450T



MDS560T - MDS600T

	A (mm)	B (mm)	C (mm)	weight (kg)
MDS22WN	250	770	190	8
MDS28WN	250	770	190	8
MDS36WN	285	830	189	11
MDS45WN	285	830	189	11
MDS50WN	310	1020	228	12
MDS56WN	310	1020	228	12
MDS28C*	840	840	190	25
MDS36C*	840	840	190	25
MDS45C*	840	840	190	25
MDS50C*	840	840	190	25
MDS56C*	840	840	240	30
MDS71C*	840	840	240	30
MDS90C*	840	840	320	38
MDS112C*	840	840	320	38
MDS28CS**	570	570	230	20
MDS36CS**	570	570	230	20
MDS45CS**	570	570	230	20
MDS28F	695	840	238	26
MDS36F	695	840	238	26
MDS50F	695	840	238	26
MDS71F	600	1300	188	32
MDS112F	695	1590	238	42
MDS22DH	880	665	250	29
MDS28DH	880	665	250	31
MDS36DH	880	665	250	31
MDS45DH	980	721	266	36
MDS56DH	1155	756	300	51
MDS71DH	1155	756	300	51
MDS90DH	1425	756	300	64
MDS112DH	1425	756	300	64
MDS140DH	1425	756	300	66
MVF100	1250	950	340	111
MVF120	1250	950	340	111
MVF140	1250	950	340	111
MVF140T	1250	950	340	115
MVF160T	1250	950	340	115
MDS120	1250	1100	340	140
MDS260T	1772	990	880	280
MDS300T	1772	990	880	300
MDS450T	1772	1290	880	450
MDS560T	1760	1980	920	600
MDS600T	1760	1980	920	600

*: MDSGL40 grille 950x950x60 mm;
Weight = 6,5 kg;

** : MDSGL40S grille 650x650x50 mm;
Weight = 5 kg;

EWIH

Split system heat pumps
Wall installation with capacities from 2,6 up to 7,0 kW with Inverter and Plasmacluster filter

R410A



Seasonal Energy Efficiency
See Technical data



Plasmacluster



Regulation (EU) N. 206/2012
Delegated Regulation (EU) N. 626/2011

EWI 091 H
EWI 121 H



EWI 182 H
EWI 242 H



CWI H



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.

EWIH is fitted with a new generation filter: PLASMACLUSTER produces even more ions than the previous version.

The result is faster air purification in the climate controlled environment.

The COANDA effect

EWIH is fitted with new vertical deflectors which, in addition to the standard positions used in cooling and heating mode, can also direct the air flow towards the ceiling (cooling function) or towards the floor (heating function).

The result is better air distribution around the room without irritating draughts

Features

- With R410A refrigerant
- Available in 4 different power versions
- Inverter technology for large power savings and optimized room comfort conditions
- Room reaches required temperature after switching on in 2/3 the time of an equivalent appliance without an inverter
- Excellent ratio between heating capacity and cooling capacity, thanks to the inverter-controlled compressor
- Three-speed cross flow fan
- Variable speed rotary compressor
- Air outlet deflectors with horizontal adjustment facility
- Motorized louver controllable from remote handset for vertical adjustment of outlet air flow direction
- Very quiet operation
- Infrared remote handset with LCD display for full control of all functions of the appliance
- Microprocessor control
- Local control facility
- Timer for programming On/Off times
- Programs for cooling only, heating only, dehumidification and automatic operation (heating/cooling)
- Self-diagnostics function
- Easily removable, washable air filter with anti-mould treatment
- Defrost control
- **Condensation control device for operation in cooling mode with an external temperature up to -10°C**
- Refrigerant lines with flared ends
- Refrigerant lines up to 15m for (091H - 121H), up to 20m for (EWI 182H) and up to 30m for (EWI 242H)

Technical data

			EWI 091 H CWI 091 H	EWI 121 H CWI 121 H	EWI 182 H CWI 182 H	EWI 242 H CWI 242 H
Cooling capacity	nominal	W	2640	3500	5000	7000
	min. - max.	W	900 - 3000	900 - 3800	1400 - 5700	1500 - 8000
Energy Efficiency			A ⁺⁺	A	A ⁺⁺	A ⁺
SEER		W/W	6,3	5,4	6,7	5,9
Input power	nominal	W	780	1090	1470	2160
	min. - max.	W	200 - 960	210 - 1300	260 - 1890	260 - 2990
Input current	nominal	A	3,7	5,0	6,6	9,6
Moisture removed	max. speed	l/h	0,7	1,2	1,6	2,6
Indoor unit air flow rate	max.	m³/h	516	588	864	1104
	med.	m³/h	438	510	726	864
	min.	m³/h	330	414	570	642
Heating capacity	nominale	W	3100	4000	5700	7500
	min. - max.	W	900 - 4800	1000 - 6000	1100 - 8000	1100 - 9500
Energy Efficiency			A ⁺	A	A	A ⁺
SCOP		W/W	4,3	3,9	3,8	4,0
Input power	nominale	W	730	1030	1510	2015
	min. - max.	W	160 - 1400	180 - 1900	240 - 2380	240 - 2830
Input current	nominale	A	3,5	4,8	6,8	8,9
Power supply			230V ~ 50Hz			
♪ Sound pressure	Indoor unit	max. dB (A)	39	40	43	47
		min. dB (A)	28	28	39	42
	outdoor unit	dB (A)	45	48	49	53
Outdoor unit air flow rate		m³/h	1398	1602	2658	2736
Refrigerant connections	liquid	Ø	1/4"	1/4"	1/4"	1/4"
	gas	Ø	3/8"	3/8"	1/2"	5/8"

Performance values refer to the following conditions:

♪ measured at 1.3m in an anechoic chamber.

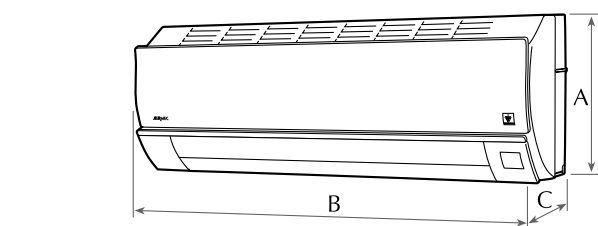
■ Cooling:

- room air temperature 27°C D.B., 19°C W.B.;
- ambient air temperature 35°C; maximum speed.

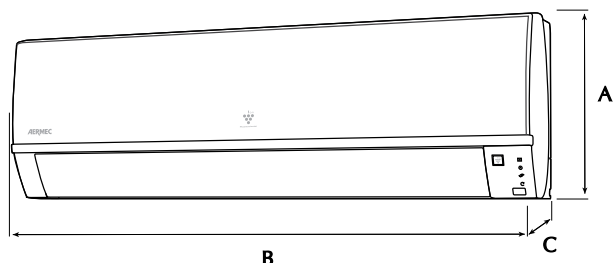
■ Heating:

- room air temperature 20°C;
- ambient air temp. 7°C D.B., 6°C W.B.; max. speed

Dimensions (mm)

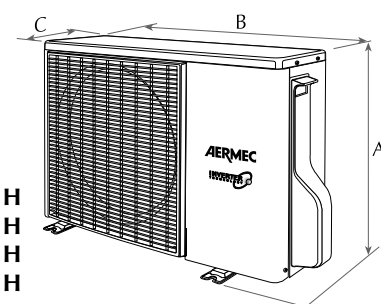


INDOOR UNIT
EWI 091 H
EWI 121 H



INDOOR UNIT
EWI 182 H
EWI 242 H

OUTDOOR UNIT



CWI 091 H
CWI 121 H
CWI 182 H
CWI 242 H

		EWI 091 H	EWI 121 H	EWI 182 H	EWI 242 H	CWI 091 H	CWI 121 H	CWI 182 H	CWI 242 H
Height	A	278	278	325	325	540	540	710	710
Width	B	790	790	1040	1040	730	730	850	850
Depth	C	198	198	222	222	250	250	330	330
Weight	kg	10	10	12	13	36	36	49	53

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel 0442633111 - Fax 044293730
www.aermec.com

EFI

Split system heat pumps
Universal installation with capacities from 2,6 up to 7 kW with Inverter and Plasmacluster filter

R410A



Seasonal Energy Efficiency
See Technical data



Plasmacluster



Regulation (EU) N. 206/2012
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PLASMACLUSTER ionising filter.

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The result is in the air: you can finally breath clean, odour-free ionised air.

Features

- Available in 4 different power versions
- Inverter technology for large power savings and optimized room comfort conditions
- Room reaches required temperature after switching on in 2/3 the time of an equivalent appliance without an inverter
- Excellent ratio between heating capacity and cooling capacity, thanks to the inverter-controlled compressor
- Can be installed in vertical or horizontal positions
- Variable speed rotary compressor
- Condensation control device for operation in cooling mode with an external temperature up to -10°C, standard for 091H, 121H, 181H and 241H
- Air outlet deflectors with horizontal adjustment facility
- Motorized louver controllable from remote handset for vertical adjustment of outlet air flow direction
- Very quiet operation
- Infrared remote handset with LCD display for full control of all appliance functions
- Microprocessor control
- Timer for programming On/Off times
- Programs for cooling only, heating only, dehumidification, automatic operation (heating/cooling)
- Self-diagnostics function
- Refrigeration lines up to 15m for EFI 091 - 121, up to 30m for EFI 181 - 241

Technical data

		EFI 091 H	EFI 121 H	EFI 181 H	EFI 241 H
		CWI 091 H	CWI 121 H	CFI 181 H	CFI 241 H
Cooling capacity	W (nominale)	2640	3500	5000	7000
	W (min. - max.)	900 - 3400	900 - 4000	1700 - 6100	2400 - 8000
Energy Efficiency		A ⁺⁺	A	A ⁺	A
SEER		6,3	5,4	5,6	5,2
Total input power	W (nominale)	780	1090	1560	2180
	W (min. - max.)	230 - 960	230 - 1300	370 - 2650	630 - 3120
Total input current	A (nominale)	3,6	5,0	7,2	10,0
	A (min. - max.)	1,2 - 4,4	1,2 - 6,0	1,7 - 12,3	2,9 - 14,3
Heating capacity	W (nominale)	3100	4000	6200	8000
	W (min. - max.)	900 - 4500	900 - 5800	1700 - 7500	2800 - 9000
Energy Efficiency		A ⁺	A	A	A
SCOP		4,3	3,9	3,9	3,7
Total input power	W (nominale)	730	1030	1700	2210
	W (min. - max.)	250 - 1120	290 - 1750	370 - 2200	730 - 2800
Total input current	A (nominale)	3,5	4,7	7,8	10,1
	A (min. - max.)	1,3 - 5,4	1,3 - 7,0	1,7 - 10,0	3,4 - 12,9
Air flow rate (EFI)	m ³ /h (max.)	666	720	990	1140
	m ³ /h (med.)	540	570	798	930
	m ³ /h (min.)	396	420	660	690
Air flow rate (CFI - CWI)	m ³ /h	1398	1460	3240	3180
♪ Sound pressure (EFI)	dB (A) (max.)	39	41	43	46
	dB (A) (med.)	34	35	38	41
	dB (A) (min.)	28	29	34	34
♪ Sound pressure (CFI - CWI)	dB (A)	45	48	54	55
Refrigerant connections	Ø liquido	1/4"	1/4"	1/4"	3/8"
	Ø gas	3/8"	3/8"	1/2"	5/8"

Power supply = 230V ~ 50Hz

Performance values refer to the following conditions:

♪ = measured at 1.3 m in an anechoic chamber

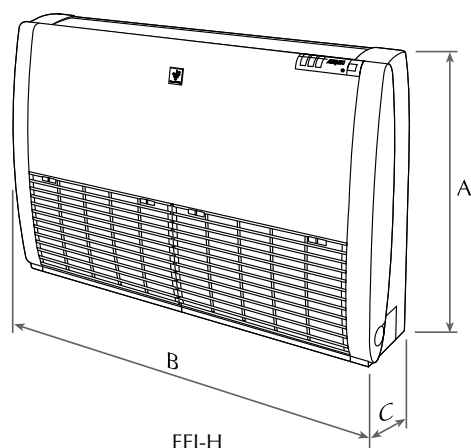
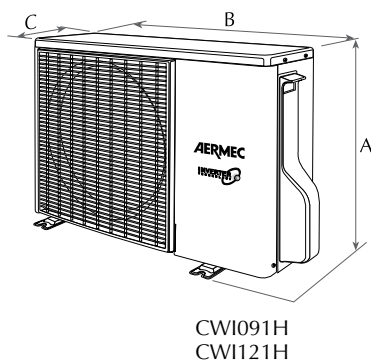
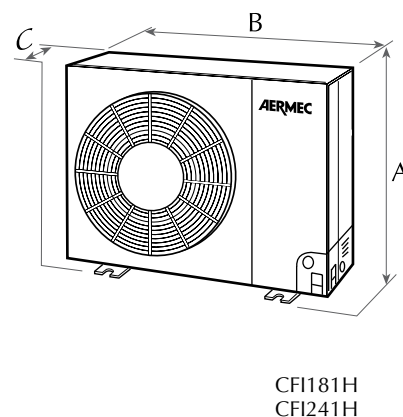
Cooling:

- room air temperature 27°C D.B. ; 19°C W.B.
- ambient air temperature 35°C ; maximum speed

Heating:

- room air temperature 20°C
- ambient air temp. 7°C D.B. ; 6°C W.B. ; maximum speed

Dimensions (mm)



		EFI				CWI		CFI	
		091 H	121 H	181 H	241 H	091 H	121 H	181 H	241 H
Height	A	680	680	680	680	540	540	800	800
Width	B	1025	1025	1300	1300	730	730	890	890
Depth	C	212	212	212	212	250	250	320	320
Weight	kg	31	31	34	36	33	37	57	65

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel. 0442633111 - Telefax 044293730
www.aermec.com

EFSI

Split system heat pumps
Floor installation with capacities from 2.5 up to 5 kW with Inverter and Plasmacluster filter

R410A



Seasonal Energy Efficiency
See Technical data



Plasmacluster



Regulation (EU) N. 206/2012
Delegated Regulation (EU) N. 626/2011



**HEATING OPERATION WITH
OUTSIDE TEMPERATURE
DOWN TO -15°C**



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 breathe clean, odour-free ionised air.

Features

- With R410A refrigerant gas
- Available in 3 versions of different capacities
- Vertical, free-standing installation
- Elegant design and compact size
- Plasmacluster air purifier
- Inverter technology for large power savings and optimised room comfort conditions
- Following ignition, the required temperature is reached in 2/3 of the time taken by an air conditioning system without Inverter
- High heating capacity - cooling capacity ratio, thanks to the Inverter
- Variable speed rotary compressor
- Double delivery, with air outlet fins in both the lower and upper parts, for better air distribution and to minimise temperature differences at different heights
- Air distribution differentiated between cooling and heating mode, to obtain the maximum comfort
- Microprocessor control
- Infrared remote control with liquid crystal screen for controlling all the functions
- Timer for programming on/off times
- Operation modes: Cooling, Heating, Dehumidification and Automatic
- Auto-restart
- Self-diagnostics function
- Particularly quiet operation
- Regenerable air filter
- Refrigerant lines with flared ends
- Ease of installation and maintenance
- **Condensation control device for cooling mode with outside temperatures down to -10°C**
- **Heating mode with outside temperatures down to -15°C**

Technical data

		EFSI 090 H CFSI 090 H	EFSI 120 H CFSI 120 H	EFSI 180 H CWI 181 H
Cooling capacity	W (nominal)	2500	3500	5000
	W (min. - max.)	900 - 3000	900 - 4000	900 - 5700
Energy Efficiency Cooling Mode		A	A	B
SEER		4,07	3,26	3,01
Total input power	W (nominal)	615	1075	1660
	W (min. - max.)	200 - 890	230 - 1320	260 - 2190
Total input current	A (nominal)	2,9	5,0	7,4
	A (min. - max.)	1,0 - 4,0	1,1 - 6,0	1,3 - 9,7
Humidity removed	l/h	0,4	0,95	1,6
Air flow rate (EFSI)	m³/h (min)	276	300	480
	m³/h (med)	444	498	702
	m³/h (max)	594	630	852
♪♪ Sound pressure (CFSI - CWI)	dB (A)	45	46	49
Heating capacity	W (nominal)	3400	4500	5700
	W (min. - max.)	900 - 5000	900 - 6000	900 - 7700
Energy Efficiency Heating Mode		A	A	A
SCOP		4,36	3,66	3,61
Total input power	W (nominal)	780	1230	1580
	W (min. - max.)	200 - 1400	230 - 1730	260 - 2400
Total input current	A (nominal)	3,6	5,7	7,0
	W (min. - max.)	1,0 - 6,3	1,1 - 7,7	1,3 - 10,6
Air flow rate (EFSI)	m³/h (max)	342	366	582
	m³/h (max)	480	510	738
	m³/h (max)	612	660	888
♪♪ Sound Pressure (CFSI - CWI)	dB (A)	46	47	52
♪ Sound Pressure (EFSI)	dB (A) (min)	22	23	33
	dB (A) (med)	29	31	39
	dB (A) (max)	37	38	44
Line max lengths	m (max)	20	20	30
Max level difference	m (max)	7	7	10
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"
	Ø max	3/8"	3/8"	1/2"

Electric power supply = 230V ~ 50Hz

Performance values refer to the following conditions:

♪ = measured in anechoic chamber at 1.3m from front, direction factor 4

♪♪ = measured in anechoic chamber at 1m from front, direction factor 2

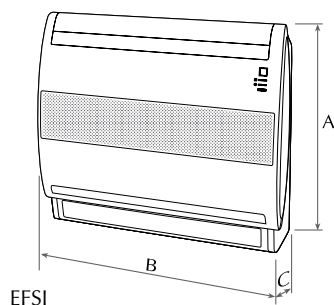
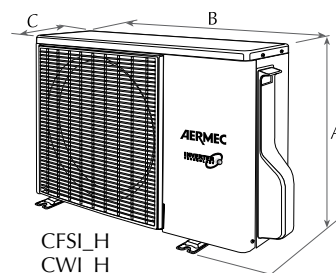
Cooling:

- Room air temperature 27°C B.S. ; 19°C B.U.
- Ambient air temperature 35°C
- Maximum Speed
- Refrigerant lines length 5m

Heating:

- Room air temperature 20°C
- Ambient air temp. 7°C B.S. ; 6°C B.U.
- Maximum speed
- Refrigerant lines length 5m

Dimensions (mm)



		EFSI			CFSI		CWI
		090 H	120 H	180 H	090 H	120 H	181 H
Height	A	670	670	670	540	540	540
Width	B	750	750	750	730	730	780
Depth	C	235	235	235	250	250	265
Weight	kg	17	17	17	33	33	37

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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MIH

Multisplit system heat pumps
MultiSplit System with capacities from 5.2 up to 8.4 kW with Inverter

R410A



Plasmacluster



Seasonal Energy Efficiency
See Technical data

Heating mode
operation with
external temperature
down to -15°C

MIH E
MIHP071E
MIHP091E
MIHP121E



MIHP181E



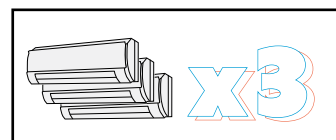
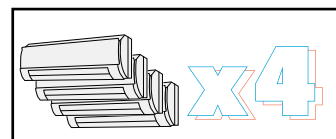
MFIH



MVIH



MDIH



= MIH E / MIHP E
MFIH / MVIH
MDIH E



Regolamento (UE) N. 206/2012
Regolamento Delegato (UE) N. 626/2011



MIH C



PLASMACLUSTER ionising filter (only for MIHP - MFIH - MVIH).

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.

Features

Trialsplit:

- MIH 183C outdoor unit which can be connected to 3 internal units

Quadrisplit:

- MIH 244C outdoor unit which can be connected to 4 indoor units
- MIH 302C outdoor unit which can be connected to 4 indoor units, 180E/181E, combined with outdoor unit MIH302C, requires 3 indoor units instead of 4

Optional **indoor units** among the following:

- MIH 071E - 091E - 121E
- MVIH 090E - 120E - 180E
- MDIH 070E - 090E - 120E (must be combined with TL21 accessory/1)
- MIHP 071E - 091E - 121E - 181E (with Plasmacluster)
- MFIH 071 - 091 - 121 (with Plasmacluster)

- With R410A refrigerant
- Available in 3 different power versions
- Inverter technology for large power savings and optimized room comfort conditions
- Room reaches required temperature after switching on in 2/3 the time of an equivalent appliance without an inverter
- Excellent ratio between heating capacity and cooling capacity, thanks to the inverter-controlled compressor
- Three speed cross-flow fan
- Variable speed rotary compressor
- Air outlet deflectors with horizontal adjustment facility
- Motorized louver controllable from remote handset for vertical adjustment of outlet air flow direction
- Very quiet operation
- Infrared remote handset with LCD display for full control of all functions of the appliance

- Microprocessor control
- Local control facility
- Timer for programming On/Off times
- Programs for cooling only, heating only, dehumidification and automatic operation (heating/cooling)
- Self-diagnostics function
- Easily removable, washable air filter with anti-mould treatment
- Defrost control
- Refrigerant lines with flared ends
- Refrigeration lines up to 20m for the internal unit (max 50m for MIH 183C, max 50m for MIH 244C, max 50m for MIH 302C)
- Heating mode operation with external temperature down to -15°C

Technical data

Outdoor Units	Indoor Units*	Cooling capacity nominal (min/max)	Input power nominal (min/max)	** SEER	Heating capacity nominal (min/max)	Input power nominal (min/max)	** SCOP
	MIH - MIHP - MVIH MFIH - MDIH	kW	kW		kW	kW	
183C	09xE + 09xE + 09xE	5,2 (2,2 / 7,2)	1,41 (0,43 / 2,56)	-	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	-
	12xE + 09xE + 07xE	5,2 (2,2 / 7,2)	1,41 (0,43 / 2,56)	-	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	-
	12xE + 07xE + 07xE	5,2 (2,2 / 7,2)	1,41 (0,43 / 2,56)	-	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	-
	09xE + 09xE + 07xE	5,2 (2,2 / 7,2)	1,41 (0,43 / 2,56)	-	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	-
	09xE + 07xE + 07xE	5,2 (2,2 / 7,2)	1,41 (0,43 / 2,56)	-	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	-
	07xE + 07xE + 07xE	5,2 (2,2 / 7,0)	1,41 (0,43 / 2,46)	A ⁺ 6,0	6,8 (2,2 / 8,4)	1,66 (0,42 / 2,48)	A ⁺ 4,1
244C	09xE + 09xE + 09xE + 09xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
	12xE + 09xE + 07xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
	09xE + 09xE + 09xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
	12xE + 07xE + 07xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
	09xE + 09xE + 07xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
	09xE + 07xE + 07xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	-	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	-
302C	07xE + 07xE + 07xE + 07xE	7,0 (3,0 / 8,2)	2,18 (0,60 / 2,98)	A ⁺⁺ 6,2	8,0 (3,0 / 9,2)	2,00 (0,56 / 2,56)	A ⁺ 4,3
	18xE + 07xE + 07xE + /	8,3 (4,3 / 8,9)	2,99 (1,07 / 3,49)	-	8,9 (4,4 / 10,5)	2,40 (0,94 / 3,06)	-
	18xE + 09xE + 07xE + /	8,3 (4,3 / 8,9)	2,99 (1,07 / 3,49)	-	8,9 (4,4 / 10,5)	2,40 (0,94 / 3,06)	-
	18xE + 09xE + 09xE + /	8,3 (4,3 / 8,9)	2,99 (1,07 / 3,49)	-	8,9 (4,4 / 10,5)	2,40 (0,94 / 3,06)	-
	18xE + 12xE + 07xE + /	8,3 (4,3 / 8,9)	2,99 (1,07 / 3,49)	-	8,9 (4,4 / 10,5)	2,40 (0,94 / 3,06)	-
	07xE + 07xE + 07xE + 07xE	8,0 (4,3 / 9,0)	2,78 (1,07 / 3,49)	-	8,5 (4,4 / 9,8)	2,23 (0,94 / 2,85)	-
302C	07xE + 07xE + 07xE + 09xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	A 5,2	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	A 3,9
	07xE + 07xE + 09xE + 09xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	07xE + 09xE + 09xE + 09xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	09xE + 09xE + 09xE + 09xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	07xE + 07xE + 07xE + 12xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	07xE + 07xE + 09xE + 12xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	07xE + 09xE + 09xE + 12xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-
	07xE + 07xE + 12xE + 12xE	8,4 (4,3 / 9,0)	2,99 (1,07 / 3,49)	-	9,0 (4,4 / 10,6)	2,40 (0,94 / 3,06)	-

Data refer to total power with all units running. The technical manual contains the efficiency data of each unit.

* = replace the x with 0 (zero) for MVIH - MDIH units and with 1 (one) for MIH E - MFIH - MIHP E units.

** =Energy efficiency class

Trialsplit: It is necessary to install at least 2 indoor units to allow the system correct operation.

Quadrisplit: It is necessary to install at least 3 indoor units to allow the system correct operation.

The 18k indoor unit (MIHP181E o MVIH180E) can be matched with the MIH302C outdoor unit only. In this case the MIH302C outdoor unit can be combined with max. 3 indoor units (see the recommended combinations)

Indoor Units		MIH 071E	MIHP 071E	MFIH 71	MDIH 70	MVIH 090E	MIH 091E	MIHP 091E	MFIH 91	MDIH 90
Air flow rate	m ³ /h (max.)	480	480	450	300	573	516	516	522	460
	m ³ /h (med.)	444	444	384	270	486	474	474	438	370
	m ³ /h (min.)	330	330	330	220	378	330	330	366	290
♪ Sound pressure	dB (A) (max.)	37	37	34	37,5	38	39	39	38	35
	dB (A) (med.)			30	35,5				34	30
	dB (A) (min.)	28	28	27	29,5	25	28	28	29	26

Indoor units		MVIH120E	MIH121E	MIHP121E	MFIH121	MDHI120	MVIH180E	MIHP181E
Air flow rate	m ³ /h (max.)	666	588	588	624	520	864	864
	m ³ /h (med.)	534	510	510	522	410	714	726
	m ³ /h (min.)	405	414	414	432	320	531	570
♪ Refrigerant connections	dB (A) (max.)	40	40	40	39	36,5	44	43
	dB (A) (med.)				36	32		
	dB (A) (min.)	26	29	29	30	26,5	35	39

Outdoor Units		MIH 183C	MIH 241C	MIH 244C	MIH 302C
Air flow rate	m ³ /h	1980	3120	2580	3120
♪ Sound pressure	dB (A)	46	56	49	57
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"	1/4"
	Ø gas	3/8"	3/8"	3/8"	3/8"

Power supply = 230V ~ 50Hz

Performance values refer to the following conditions:

♪ measured at 1.3m in an anechoic chamber.

♪♪ measured at 1m in an anechoic chamber.

■ Cooling

- room air temperature 27°C D.B. ; 19°C W.B.

- ambient air temperature 35°C ; maximum speed

■ Heating:

- room air temperature 20°C;

- ambient air temperature 7°C D.B. ; 6°C W.B. ; max.speed

Accessories

	MDIH	070	090	120
AMP		✓	✓	✓
BC	4*	✓	✓	✓
	5**	✓	✓	✓
DSC	8	✓	✓	✓
	4	✓	✓	✓
GA	22	✓		
	32		✓	
GAF	42			✓
	22	✓		
GM	32		✓	
	42			✓
MA	22	✓		
	32		✓	
MU	42			✓
	22	✓		
PA	32		✓	
	42			✓
PC	22	✓		
	23	✓		
	32		✓	
	33		✓	
PM	42			✓
	43			✓
RD	22	✓		
	32		✓	
RDA	42			✓
	22	✓		
RP	32		✓	
	42			✓
RPA	22	✓		
	32		✓	
SE	42			✓
	20X	✓		
TL	30X		✓	
	40X			✓
ZX	2 l ***	✓	✓	✓
	5	✓	✓	✓
	7	✓	✓	✓

* = in combination with accessory MA

** = in combination with accessory MU

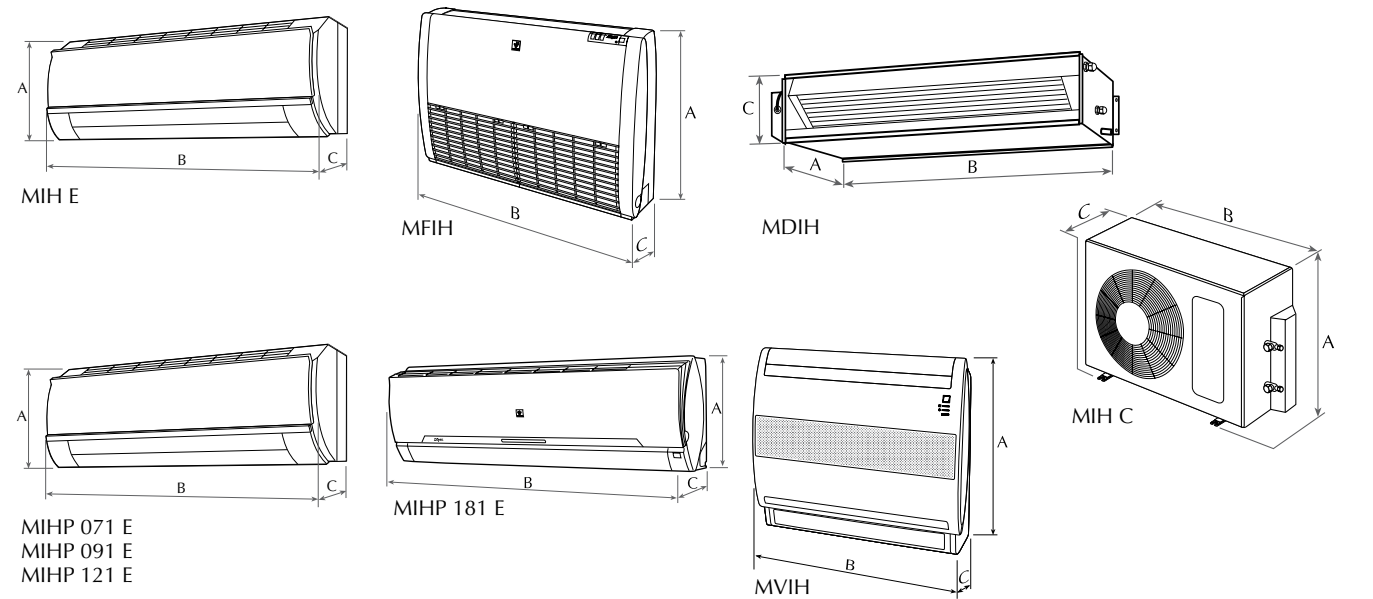
*** = It is a mandatory accessory because the units are consigned without MDIH

- **AMP:** Kit for ceiling mounting.
- **BC:** Auxiliary condensate drip tray.
- **DSC:** Condensate drainage device for use when natural run-off is not possible.
- **GA:** Intake louver with fixed slats.
- **GAF:** Intake louver with fixed slats and filter.
- **GM:** Delivery louver with adjustable slats.
- **MA:** Vertical cabinet.
- **MU:** Universal cabinet.
- **PA:** Intake plenum in galvanized steel, with

- plastic outlet connections for circular section ducting.
- **PC:** Rear cover panel.
- **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.
- **TL2I:** Infrared remote handset with LCD display for full control of all appliance functions. Kit including receiver for wall installation. (Obligatory accessory).
- **ZX:** Feet for floor standing installation of models with MA accessory; or built-in installation.

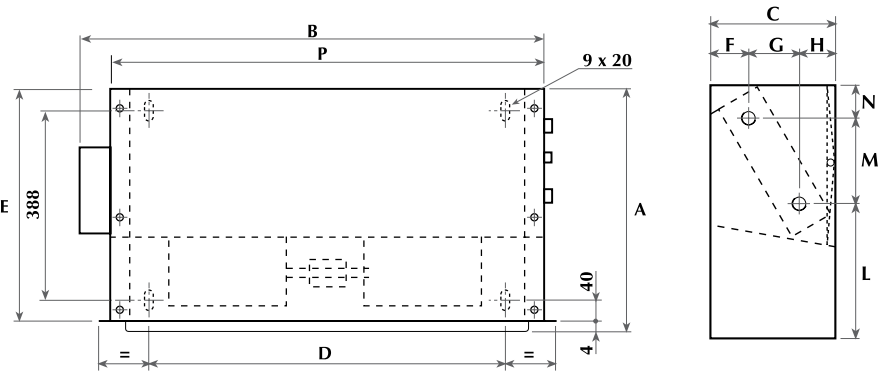
Dimensions (mm)



Mod.		MIH 071E	MIHP 071E	MFIH 071	MVIH 090E	MIH 091E	MIHP 091E	MFIH 091	MVIH 120E	MIH 121E	MIHP 121E	MFIH 121
Height	A	278	278	680	670	278	278	680	670	278	278	680
Width	B	790	790	1025	750	790	790	1025	750	790	790	1025
Depth	C	198	198	212	235	198	198	212	235	198	198	212
Weight	kg	10	10	31	17	10	10	31	17	10	10	31

Mod.		MVIH 180E	MIHP 181E	MIH 183C	MIH 244C	MIH 302C
Height	A	670	325	645	800	800
Width	B	750	1040	950	950	940
Depth	C	235	229	323	357	320
Weight	kg	17	16	53	64	70

MDIH 070 - 090 - 120



MDIH	070	090	120
A	457	457	457
B	592	823	1043
C	216	216	216
D	440	671	891
E	453	453	453
F	41	41	41
G	101	101	101
H	74	74	74
L	260	260	260
M	144	144	144
N	49	49	49
P	522	753	973
Weight [Kg]	17	23	26

Smuffo

Dehumidifier Portable

R134a



Features

- Available in 3 sizes of different capacities
- Modern look and casing in plastic material
- Easy to move from one room to another with 4 rotating wheels
- Relative humidity setting between 80% and 35%
- Visual display of the humidity setting and that read in the room
- Possibility to set continuous operation for operation at maximum dehumidification capacity
- 3 fan speed settings
- Easy and immediate use unit mounted control panel
- Delay timer for starting/stopping (2h, 4h)
- Possibility to discharge the condensate into the bucket mounted in the unit or to externally drain directly through the outlet pipe on the side of the unit
- If the condensate collection bucket is full the dehumidifier will stop and light up the relative indicator
- Indicator lights to show the requirement to clean the filter
- Automatic defrost
- Easy of the filter and the condensate collection bucket cleaning and maintenance
- Auto-diagnostic Function
- Auto-Restart Function

Technical data

Mod		DMK12	DMK20	DMK24
Dehumidification capacity ¹	[l/24h]	12	20	24
♪ Sound pressure level (max/med/min)	[dB(A)]	43/41/39	45/43/41	47/45/43
Air flow rate (max/med/min)	[m ³ /h]	150/120/100	150/130/115	190/170/145
Condensate bucket collection capacity	[l]	4.9	4.9	4.9
Power input ¹	[W]	250	380	390
Current input ¹	[A]	1.1	1.7	1.7
Nominal power input ²	[W]	330	480	500
Refrigerant		R134a	R134a	R134a
Refrigerant charge	[kg]	0.09	0.20	0.24

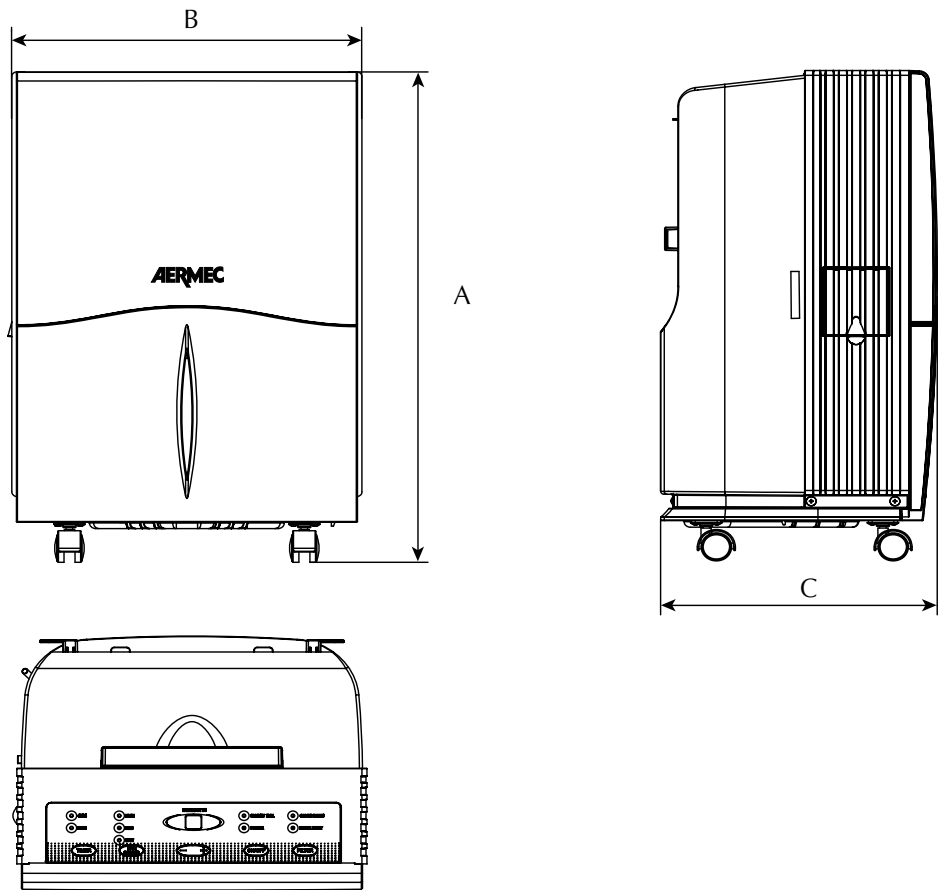
Power supply = 230V ~ 50Hz

♪ Sound pressure measured in a semi anechoic chamber, 1m from the front

¹ Indoor air temperature 30°C d.b. ; 27°C w.b.

² Tested according to EN-60335

Dimensions (mm)



		DMK12	DMK20	DMK24
Height	A	523	523	523
Width	B	343	343	343
Depth	C	270	270	270
Weight	[kg]	12.5	14.5	15

CWX Water cooled condensing unit Cooling only operation Internal installation with capacity from 3.5 to 6.7kW

R410A



Accessory TL 3



Accessory PF



CWX



EXC



EWP



Plasmacluster



EWA_H

The internal units EWP and EWA_H are supplied with the ioniser filter PLASMACLUSTER.

Plasmacluster is capable of breaking down contaminants, decomposing the molecules.

By electrical discharges "Plasmacluster" causes the water molecules present in the air to be split into positive and negative ions. These ions neutralise the molecules of gaseous contaminants achieving products normally present in clean air.

The result is in the air: finally you can breathe air cleaned, ionised and without bad odours.

Characteristics

- Available in 3 versions of different capacities
- The versions are manufactured with refrigerant R410A (CWX1200, CWX1800, CWX2400)
- Operates as cooling only with condensation by water
- CWX condensing unit with rotary compressor
- **EXC:** internal unit with three speed centrifugal fan with the possibility to modify the electrical connection to increase the available static pressure. **Mandatory accessory PF(wired panel) or TL3 (remote controller), required for the operation of the unit**
- **EWA_H - EWP:** internal unit with three speed tangential type fan.
- Horizontally adjustable discharge louvres and motorised deflector louvres, actioned by the remote controller for vertically adjusting the supply air
- Infra red remote controller with liquid crystal display.
- Extremely low noise operation
- Microprocessor controller
- Timer programmed delay start and stop
- Programmes for cooling only, heating only, dehumidification, automatic operation (heating/cooling)
- Washable filter easily removed and with anti mould treatment
- Flare type refrigerant connections
- Refrigerant lines up to 15m
- Vast range of accessories available for the internal unit EXC

Technical data

CWX		1200	1800	2400
Cooling capacity	W	3500	5100	6700
Total power input	W	795	1370	1940
Total current input	A	3.58	6.34	1.4
Water use at 16°C	l/h	140	235	345
Water use at 30-35°C	l/h	706	1082	1450
♪ Sound pressure	dB(A)	47.5	50.5	50.5
Refrigerant			R410A	
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"
Refrigerant lines	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"
EXC		123	183	243
Heating capacity (electric heater)	W	1650	1950	2200
Condensate drain rate	l/h	1.4	1.78	2.3
EER	W/W	-	3.72	3.45
Energy efficiency class		-	A	B
Current input (electric heater)	A	7.2	8.5	9.6
Heating capacity with water coil*	W	3800	5000	6700
Internal unit air flow	(min.) m³/h	310	550	610
	(med.) m³/h	400	650	830
	(max.) m³/h	520	840	960
♪♪ Sound pressure	(min.) dB(A)	29.0	43	41
	(med.) dB(A)	34.5	46.5	45
	(max.) dB(A)	39.0	50	48
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"
EWA		120 H	-	-
Condensate drain rate	l/h	1.2		
EER	W/W	4.40		
Energy efficiency class		A		
Air flow	m³/h (min.)	210	-	-
	m³/h (med.)	396	-	-
	m³/h (max.)	438	-	-
♪♪ Sound pressure	dB(A) (min.)	28	-	-
	dB(A) (med.)	33	-	-
	dB(A) (max.)	37	-	-
Refrigerant connections	Ø liquid	1/4"	-	-
	Ø gas	1/2"	-	-
EWP		-	181 H	241 H
Condensate drain rate	l/h	-	1.6	2.2
Air flow	m³/h (min.)	-	798	798
	m³/h (med.)	-	954	954
	m³/h (max.)	-	1068	1068
♪♪ Sound pressure	dB(A) (min.)	-	37	37
	dB(A) (med.)	-	42	42
	dB(A) (max.)	-	45	45
Refrigerant connections	Ø liquid	-	1/4"	1/4"
	Ø gas	-	1/2"	1/2"(*)

Power supply = 230V ~ 50Hz

Performances relate to the following conditions:

- ♪ Sound pressure measured in a semi-reverberant room of 85m³ and reverberation time Tr = 0.5s
- ♪♪ Sound pressure measured in an anechoic chamber at 1.3m distance and directivity factor 4

- Cooling:
 - ambient air temperature 27°C Db / 19°C WB
 - external air temperature 35°C
 - maximum speed

* = Apply the connection (1/2"F - 5/8"M) supplied loose with the condensing unit CWX 2400 to the refrigerant connections of unit EWP H

Accessories

Mandatory accessory PF or TL3 are required for the operation of the unit

EXC:

- **PF:** Control panel with ambient electronic thermostat for wall mounting. It is a **mandatory accessory** since the EXC unit is shipped without.
- **TL3:** Infra red remote controller with liquid crystal display for the control of all functions. Kit complete with recess mounted base. It is a **mandatory accessory** since the EXC unit is shipped without.
- **AMP:** Hanging installation kit.
- **BC:** Auxiliary condensate drain pan.
- **BV:** 1 row hot water coil.

- **DSC4:** Condensate pump for overcoming lift.
- **GA:** Intake grille with fixed louvres.
- **GAF:** Intake grille with fixed louvres and filter.
- **GM:** Supply grille with adjustable louvres.
- **MA:** Enclosure Alto.
- **MU:** Enclosure Universale.
- **PA:** Suction plenum in galvanised sheet steel, complete with supply connections in plastic for circular duct connections.
- **PC:** Sheet steel panel for enclosing the rear part of the unit.
- **PM:** Discharge plenum in galvanised steel, externally insulated, with supply connections in plastic for circular duct connections.

- **RD:** Discharge straight connection for ducting.
- **RDA:** Suction straight connection for ducting.
- **RP:** Discharge connection 90° for ducting.
- **RPA:** Suction connection 90° for ducting.
- **RX:** Shielded electric heater coil with safety thermostat.
- **SE:** External air manual damper.
- **SW:** Sensor that permits unit operation only with temperature above 35°C.
- **VCF:** Kit consisting of 3 way motorised valve, connections and copper tubes.
- **ZX:** Feet for floor mounting for models with the accessory MA, or recess mounting.

Accessory compatibility				
		CWX 1200 EXC 123	CWX 1800 EXC 183	CWX 2400 EXC 243
TL	3 ***	✓	✓	✓
PF	***	✓	✓	✓
AMP		✓	✓	✓
	4*	✓****	✓****	✓****
	5**	✓	✓	
BC	6**			✓
	8	✓	✓	
	9			✓
	122			
BV	132			
	142	✓	✓	
	162			✓
DSC	4	✓	✓	✓
	22			
GA	32			
	42	✓	✓	
	62			✓
	22			
GAF	32			
	42	✓	✓	
	62			✓
	22			
GM	32			
	42	✓	✓	
	62			✓
	22			
MA	32			
	42	✓	✓	
	62			✓
	22			
MU	32			
	42	✓	✓	
	62			✓
	22			
PA	32			
	42	✓	✓	
	62			✓
	22			
	23			
PC	32			
	33			
	42	✓	✓	
	43	✓	✓	
	62			✓
	22			
PM	32			
	42	✓	✓	
	62			✓
	22			
RD	32			
	42	✓	✓	
	62			✓
	22			
RDA	32			
	42	✓	✓	
	62			✓
	22			
RP	32			
	42	✓	✓	
	62			✓
	22			
RPA	32			
	42	✓	✓	
	62			✓
	070			
	090			
	120	✓		
RX	180		✓	
	180 T		✓	
	240			✓
	240 T			✓
	20X			
SE	30X			
	40X	✓	✓	
	80X			✓
SW	3	✓	✓	✓
VCF	44	✓	✓	
	45			✓
	5	✓	✓	
	6			✓
ZX	7	✓	✓	
	8			✓

* = in combination with accessory MA

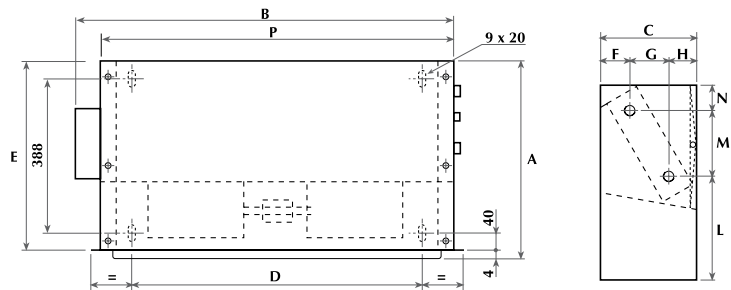
** = in combination with accessory MU

*** = Is a **mandatory accessory** in that the EXC unit is shipped without

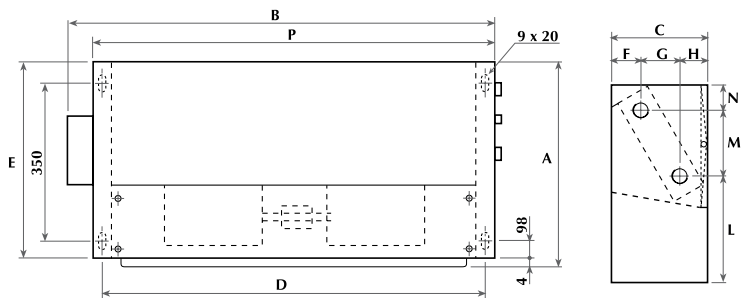
**** = The VCF valve and the BC4 drain pan cannot be installed simultaneously on the same unit.

Dimensional data (mm)

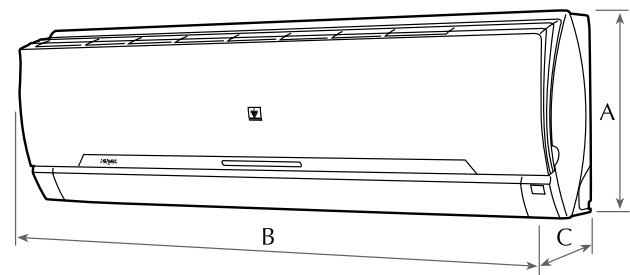
EXC 123 - 183



EXC 243

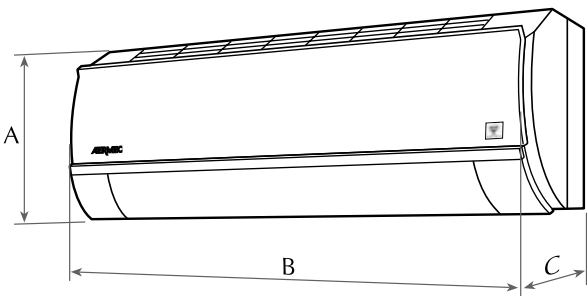


EXC	123	183	243
A	457	457	562
B	1043	1043	1182
C	216	216	216
D	891	891	1102
E	453	453	558
F	41	41	41
G	101	101	107
H	74	74	68
L	260	260	273
M	144	144	253
N	49	49	32
P	973	973	1122
Weight (kg)	26	27	37



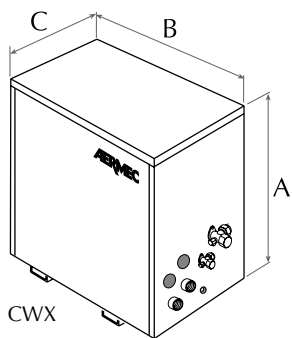
EWP

EWP		181 H	241 H
Height	A	325	325
Width	B	1040	1040
Depth	C	229	229
Weight	kg	16	16



EWAH

EWAH		070 H	090 H	120 H
Height	A	270	270	278
Width	B	810	810	790
Depth	C	184	184	198
Weight	kg	9	9	10



CWX

CWX		1200	1800	2400
Height	A	450	450	570
Width	B	470	470	470
Depth	C	260	260	260
Weight	kg	35	38	49

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293730
www.aermec.com

FW-R

Water-cooled air conditioners with capacities from 2.9 up to 4.0 kW

R410A



TL 3
Mandatory
accessory



FW-R series integrated system air conditioners are independent appliances designed and built to create and maintain optimum room comfort conditions.

Discreetly and elegantly styled, these remarkably quiet units are ideal for installation in the home or commercial premises.

Equipped with a water-cooled condenser, FW-R appliances perform all typical cooling, dehumidification, ventilation and air filtration functions while offering particular benefits in terms of ease of application and installation.

Suitable also for winter operation when equipped with an electric heater or hot water coil; console air conditioners are able to provide different microclimates within the same room because each appliance can be adjusted independently; low running costs are assured by fast arrival at the required room temperature because of the low thermal inertia of the system; quiet operation and thermal efficiency are also promoted by the heat and sound insulation of the compressor bay. All appliances are factory assembled and individually tested.

Features

- High efficiency rotary compressor
- Compact size
- Quiet operation
- Automatic temperature adjustment
- Reduced water consumption
- Low electrical power consumption

Accessories

- **TL3 : Mandatory accessory, remote controller, required for the operation of the unit**
- BR: Armoured heating element with safety thermostat.
- BVR: Single row hot water coil.

Compatibility of accessories		
FW	130R	160R
TL 3	✓	✓
BR 26	✓	✓
BVR 1	✓	✓

Technical data

Mod.	FW	130R	160R
Cooling capacity	W (max.)	2900	4000
Energy Efficiency Class		A	A
EER		4.08	4.65
Humidity removed	l/h	1.78	1.78
Input power	W	710	860
Input current	A	3.55	4.02
Heating capacity with water coil (BVR1)	W	4350	5200
Water flow rate (BVR1)	l/h	600	600
Pressure drops (BVR1)	kPa	12,6	12,6
Heating capacity electric coil (BR26)	W	1200	1200
Fans	n.	2	2
Air flow rate	m ³ /h (max.)	470	690
	m ³ /h (med.)	390	525
	m ³ /h (min.)	270	375
Fans speed	g/m (max.)	800	1140
	g/m (med.)	660	885
	g/m (min.)	500	665
♪ Sound pressure	dB (A)	44	47,5
Water consumption at 30-35°C	l/h	586	804
Condenser pressure drops	kPa	22	40
Refrigerant charge R410A	g	750	830
Input nominal power consumption *	W	1120	1500
Nominal input current *	A	4.97	6.65
Input current	A	18	32
Water connections	ø	1/2" F	1/2" F

Power supply = 230V ~ 50Hz.

♪ Sound pressure measured in an 85 m³ semi-reverberant test chamber with reverberation time Tr = 0.5s.

* In accordance with UNI EN-60335

Data declared in accordance with EN-14511

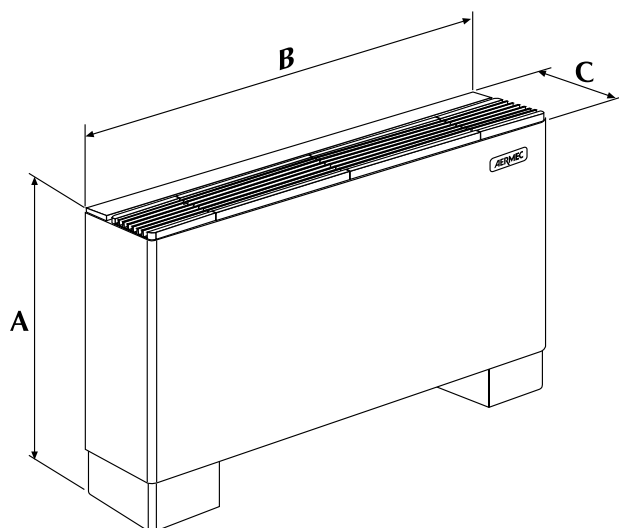
Cooling

- Room air temperature 27°C B.S. ; 19°C B.U.
- Entering water temperature 30°C
- Leaving water temperature 35°C
- Max speed

Heating (BVR1) :

- Room air temperature 20°C
- Entering water temperature 70°C
- Max speed

Dimensions (mm)



		FW 130 R	FW 160 R
Height	A	723	723
Width	B	1121	1121
Depth	C	242	242
Weight	Kg	63	67

DISTRIBUTORS / DISTRIBUTEURS

ALBANIA

AERMEK ALBANIA SH.P.K. - Bul. Zhan D'Ark Kulla 4 - TIRANA- Tel. +355 4 2224339 - Fax. +355 4 2224339 - tltsystem@albmail.com

ALGERIA

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ARGENTINA

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fernando.cani@trox.com.ar

AUSTRALIA

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mcosgrove@cosair.com.au

AUSTRIA

AERSYS GMBH - Anton-Freunschlag Gasse 72 - 1230 Wien - Tel. +431 6991967 - office@aersys.at

AZERBAIJAN

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BELGIUM

ENERWIN S.P.R.L. - Chausse de L'Herbatte, 38 - 1300 WAVRE - Tel. +32 02 3671920 - Fax +32 02 3671920 - info@aermec-be.be

BOLIVIA

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BIELORUSSIA

AEPMEK-BEL Ltd. - 115, Mayakovskogo str. - Minsk - Tel. 375 295018323 - Tornado-ASL@yandex.ru

BULGARIA

ATARO CLIMA EOOD - 272 Vasil Levski str. - Plovdiv - Tel. +359 32 906 906 - Fax +359 32 906 900 - ataro@ataro.bg
RATOLA INZHENERING - Ul. Topli Dol. 3ET.1AP.1 - GR. Sofiya - Tel. +359 2 9691031 - Fax +359 2 9691020 - office@ratolabg.com

CANADA

MITA AIR CONDITIONING Inc. - 1608 Bonhill Road - L5T 1B451 Mississauga ONTARIO - Tel. +905 564 2221- Fax + 905 564 2205 -
jchatters@mitsair.com

CHILE

GAPPS - Camino a Melipilla 2259 - PENAFLOR - Santiago - Tel. +56 9 54092803

CROATIA

MARITERM d.o.o. - Drazice 123D, Zamet - 51 000 Rijeka - Tel. +385 51 815010 - Fax +385 51 815011 - mariterm@mariterm.hr

CYPRUS

ROYAL ENGINEERING CO. LTD - 6 Trachona Str. - Dhali Industrial Area - 1662 Nicosia - P.O. Box 20689 - Tel. +357 22612199 -
Fax +357 22610272 - royaleng@cytanet.com.cy

CZECH REPUBLIC

COMPLETE CZ spol. s.r.o. - Legerova 1853/22 - Praha 2 - Tel. +420 246 030029 - Fax +420 246 030032 - info@completecz.cz

DENMARK

H. JESSEN JURGENSEN A/S - Tempovej 18-22 - 2750 Ballerup - Tel. +45 70 270607 - Fax +45 70 263405 - jeo@hjj.dk

EGYPT

EBIARY ENGINEERING COMPANY- 1-B, Makraam Ebeed St. - Nasr City - CAIRO - Mob. +20101350232 - Fax +202 22743550 -
ebiarydct@yahoo.com

ENGLAND

AERMEC UK LIMITED - 288 Bishopsgate - London - EC2M 4QP - Tel. +44 0203 008 5940 - Fax +44 0203 008 5941 - uksales@aermec.co.uk

FINLAND

HUURRE FINLAND - Taivaltie 5 - 01610 Vantaa - Tel. +358 20 5555897- Jari.Vanhala@huurre.com

FRANCE

AERMEC SAS - PARC VISIONIS II - Rue du Developpement - 01090 GUEREINS - Tél. +33 04 74090038 - Fax +33 4 74090988 -
info@aermec.fr
AERMEC SAS - AGENCE SILLON ALPIN - Immeuble Le Dauphin 18 Alee du LAC St. Andre - 73382 Le Bourget du Lac
Tel. +33 04 79 65 46 00 - Fax +33 04 79 65 41 77 - jerome.dubouchet@aermec.fr
AERMEC SAS - Ile de France - 80 Avenue du Général De Gaulle - 91170 Viry Chatillon - Tel. +33 1 60478348 - Fax +33 1 69436368
gianni.defabbro@aermec.fr
Chaud Froid National - 4 rue Nicéphore Niepce - 76300 Sotteville les Rouen - Tel 02-32-76-88-81 - Fax 02-32-76-88-89
laurent.guidez@chaudfroidnational.fr
DIMENA SARL - 88 Rue Du Moulineau - 33320 Eysines - Tel. +33-5-57876429 - Fax +33-5-56798900 - contact@dimena.fr
DIMENA - 6 Rue Maurice Hurel - Parc de la plaine - 31500 Toulouse - kriva@dimena.fr
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PHOENIX CLIMATISATION - 8, Rue de Paris - 92190 Meudon - Tel. +33 01 41 14 41 91 - Fax +33 01 41 14 52 21 -
rponcet@phoenix-climatization.fr
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T.C.A. - 19 Rue M. Bastié Z.I. de la Lauze - 34430 St Jean De Vedas - Tel. +33 4 67473690 - Fax +33 4 67479851 - tca34@tca.fr
T.C.A. - 213 route de la Valentine aux 3 lucs -13011 Marseille - Tel. +33 4 91191919 - Fax +33 467479851 - tca13@tca.fr

GEORGIA

Saga Impex Ltd.- 2-4-6-8-10 Chachava Street, 0159 Tbilisi - Georgia - Tel: +995 32 540717/27/37/47 - Fax: +995 32 541727
shalva@sagaimpex.ge

GERMANY

AERMEC GmbH - Im Tal 10 - 87669 Rieden Am Forggensee - Tel. +49 8362 300600 - Fax +49 8362 300606 - info@aermec.de
NOVATHERM KLIMAGERÄTE GmbH - Am Gierath 4 - 40885 Ratingen - Tel. +49 2102 91000 - Fax +49 2102 910010 - ratingen@novatherm.de
NOVATHERM KLIMAGERÄTE GmbH - Dieselstrasse 40 - 30827 Garbsen-Berenbostel - Tel. +49 5131 49670 - Fax +49 5131 496767 -
hannover@novatherm.de

GREECE

CALDA ENERGY S.A.I.C. -100 Tatoiou Str, Metamorfossi -14452 Athens - Tel/Fax +30 210 28 43 - Fax + 30 210 28 43 - calda@otenet.gr

HOLLAND

HOLLAND CONDITIONING B.V. - Tielenstraat 19 - 5145 RC Waalwijk - Tel. +31 416 650075 - Fax +31 416 650586 -
algemeen@holland-conditioning.nl

HUNGARY

OKTOKLIMA - Királyok útja 27 -1039 Budapest - Tel. +36 1 4332360 - Fax +36 1 2403617 - oktoklima@oktoklima.hu

IRAN

PIONEER MIDDLE EAST CO. - 643, West Sanabad Ave. - Mashad - Tel. +98 5118457722 - Fax 98 5118411627 - eng@middleasthvac.com

IRELAND

European Industrial Chillers Limited - Unit 74 Dunboyne Business Park - Dunboyne Co. Meath - Tel. +353 01 8255155 - Fax +353 01 8255188

VERTRIEBSPARTNER / DISTRIBUTORES

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NORTH IRELAND

Please contact Aermec Spa - Via Roma, 996 - 37040 Bevilacqua (VR) - Tel. +39 0442 633111 - sales@aermec.com

KAZAKHSTAN

AEPMEK KAZAKHSTAN - Samal-2, 59, Blok B, office 19 - 050040 Almaty - Tel. +77272668648 - info@aermek.kz

AEPMEK KAZAKHSTAN - Business Center Ansar 3rd floor, office VP 3/4 Siganak Street 25, - 010000 Astana - Tel. +77172550748 - info@aermek.kz

KOSOVO

N.SH.M. MONTKOMERCE GZ - RR. Orize 6 H2/11 - Gyakove - Tel. +37 744122804 - gezimzeka4@yahoo.com

INSTALL ENGINEERING S.H.P.K. - Kroi I Bardhe nr. 12 - Prishtine- Tel. +381 38 540 977 - info@install-ks.com

LIBYA

JSD Engineering - APOLLONOS str 26 - P.O. BOX : 21865, 1514 NICOSIA CYPRUS - Tel. +30210-6894 627/+30210-6894 637

Fax +30210-6894 439 - leadair@ath.forthnet.gr - leadairsa@gmail.com

LITHUANIA

NIT Ltd - Savanoriu-Pr 151- 03150 Vilnius - Tel. +370 5 2728552 - Fax +370 5 2728559 - andrius@nit.lt

LUXEMBOURG

CLIMAX LUXEMBOURG SARL - 7 Rue Lankelz - L 4205 Esch Sur Alzette - G.D. of Luxembourg - Tel. +352 26 176615 - Fax +352 26 176625 - info@climax.lu

MACEDONIA

D.O.O. EUROTHERM - UL. Sotka Georgieski Br. 63 - 7500 PRILEP - Tel. +389 48419415 - Fax +389 48422981 - info@euroterm.com.mk

MALTA

ENGENUITY LTD - 8 Triq Tal Hlas - Qormi Qrm5011 - Tel. +356 21490957/8 - Fax +356 21490964 - alan.abela@engenuity.com.mt

MOLDOVA

SC LERAI GROUP - Via Bulgara, 18 - Chisinau MD-2001 - Tel. +373 22 224238 - Fax +373 22 233024 - info@lerai.md

MOROCCO

ECOTHERM SARL - 67, Rue du Lieutenant MAHROUD ex Rue Chevalier BAYARD - Casablanca 20300 - Tel. +212 522 243300

Fax +212 522 243302 - contact@ecotherm.ma

NEW ZEALAND

Energy Products International - 30 Gallagher Drive, Frankton - 3243 Hamilton - Tel. +64 7 839 2705 - Fax +64 7 834 4212 - epi.sales@energy-products.co.nz

NORWAY

NOVEMA KULDE AS - Marenlundveien 5 - 2020 Skedsmokorset - Tel. +4769367190 - Fax +4769367191 - trond.kristensen@novemakulde.no

NOVEMA KULDE AS - Stabburveien 8 -1601 Fredrikstad - Tel. +47 69 367190 - Fax +47 69 367191 - espen.spondalen@novemakulde.no

NOVEMA KULDE AS - J Brochs gate 12 inng B - 5006 Bergen - Tel. +47 55 348675 Fax +47 55 348675 - bjorn.vassbotten@novemakulde.no

NOVEMA KULDE AS - Sorgenfrivn 9 - 7037 Trondheim - Tel. +47 73 820890 - Fax +47 55348675 - jon.lines@novemakulde.no

PERU

AIRLAN - Condominio Town Houses - Calle Schell 644, Interior N° 128 - Miraflores, 18 - Lima - Tel. +511 4450833 - Fax +511 4450833 - manuelgrana@airlan.es

POLAND

Aermec Polska Sp. z o.o. -Ul. Pulawska 405 - 02-801 Warszawa - Tel. +48 22 463 43 43 - aermec@aemec.pl

PORTUGAL

CEST - COMÉRCIO E INDÚSTRIA, LDA - Av. Almirante Gago Coutinho - Ouressa Parque - Arm. 13, 2725-322 Mem Martins

Tel. +351 219253330 - Fax +351 219253338 - geral@cest.pt

RUMANIA

AIRMEC ROMANIA S.R.L. - 29 Iezeru Street, Sector 1 - Bucharest - Tel. +40 21 550866589 - Fax +40 21 3260973 - airmec@adslexpress.ro

RUSSIA

AERMEC Spa - Rep. Office Business Center Capital Plaza, 4 Lesnoy Pereulok - office 455 - 125047 Moscow - Tel. +7 495 6638044 - m.l@aermec.com

SERBIA & MONTENEGRO

AKTING DOO - Jurija Gagarina, 153/32 -11070 Novi Beograd - Tel. +381 113187383 - Fax +381 113187387 - akting@eunet.rs

SLOVAKIA

KLIMA TEAM s.r.o. - Trnavska 63 - 82101 Bratislava - Tel. +421 2 43293969 - Fax +421 2 43420079 - mail@climateam.sk

SLOVENIA

BOSSPLAST D.O.O. - Pod Jelsami 5 -1290 Grosuplje - Tel. +386 1781 0550/5 - Fax +386 1781 0560 - jernej.rode@bossplast.com

SOUTH AFRICA

APOLLO AIR CC - Unit 4, 10 Cabernet Str - Saxenburg Park, Kuilsriver - 7562 Cape Town - Tel +27 21 9057979 - Fax +27 21 9057976 - carlo@apolloair.co.za

SPAIN

AIRLAN S.A. - Ribera de Deusto 70 - 48014 Bilbao - Tel. +34 94 4760139 - Fax +34 94 4752402 - rcoteron@airlan.es

AIRLAN - Pol. Ind. La Grela C/Ermita 48 -15008 La Coruna - Tel. +34 981 288209 - Fax +34 981 286503

AIRLAN - C/Arganda 18 - 28005 Madrid - Tel. +34 91 4732765 - Fax +34 91 4732581

AIRLAN - Avda Meridiana 350 4ª - 08020 Barcelona - Tel. +34 93 278 06 20 - Fax +34 93 278 02 24

AIRLAN - C/ Acueducto 24 - Edif. Dos Hermanas Isla Edificio 2, Pl 1ª, Mod. 9 - 41703 Pol. Ind. Ctra. De la Isla, Sevilla (Sevilla)
Tel. 955 540 612 - Fax 901 706 015

AIRLAN - Pol. Ind. Son Castello C/Teixidors 30, Nave 5 - 07004 Palma De Mallorca - Tel. +34 971 706500 - Fax +34 971 706372

AIRLAN - C/Los Bimbaches 13 - 38007 Santa Cruz de Tenerife (Isole Canarie) - Tel.+34 922 21 4563 - Fax +34 922 7985

SYRIA

SINJAB TRADING EST - Murshe Khater st. PO BOX 5358 - 5073 Damascus - Tel. +963 11 4424541 - Fax 963-11-4412862 - sinjabest@gmail.com

SWEDEN

KYLMA AB - Box 8213 -163 08 SPÅNGA, Tel. +46 8 59890805 - Fax +46 8 59890891 - Mikael.Magnusson@kylma.se

AIRCOIL AB - Angsvagen 22 - 67232 ARJÄNG - Tel. +46 573 711045 - Fax. +46 573 711811 - info@aircoil.se

SWITZERLAND

TCA THERMOCLIMA AG - Piccardstr. 13 - 9015 St. Gallen - Tel. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch

TCA THERMOCLIMA AG - Gewerbestr. 10 - 4528 Zuchwil - Tel. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch

TCA THERMOCLIMA SA - Av. Boveresses 52 - 1010 Lausanne - Tel. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch

KATALTHERM SERVICE S.A. - Via alla Gerra, Cp 54 - 6930 Bedano - Tel. +41 91 935 22 22 - Fax +41 91 935 22 24 - katalthermservice@ticino.com

TUNISIA

CODIFET S.A.R.L. - 7 Rue de la Chimie Z.I. SIDI REZIG - 2033 Megrine - Tel. +216 71 433035 - Fax +216 71 433239 - codifet@planet.tn

TURKEY

AIR TRADE CENTER - Ibrahim Karaoglanoglu Caddesi No: 101 - 34418 Seyrantepe / Istanbul - Tel. 90(0)2122834510 - Fax 90(0)2122783964
atc.turkey@airtradecentre.com

UKRAINE

AERMEK UKRAINE LLC, - Vorovskogo Str., build. 37/14 off. 304 - 01054 Kyiv 054 - Tel. +380 44 390 73 47 - Fax +380 44 390 73 46
apo@aermec.com.ua

URUGUAY

CLIMATIZACION INTEGRAL LTDA - Pedro Cosio 2064 - 11400 Montevideo - Tel. +598 26136565 - Fax +598 26136565 - pgiosa@climatizacion.com.uy



Aermec S.p.A. via Roma, 996 - 37040 Bevilacqua (VR) Italy
T. +39 0442 633111 F. +39 0442 93730/93566
sales@aermec.com **www.aermec.com**

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