

ANKI 020-080

Reversible air/water heat pump

Cooling capacity 5,8 ÷ 24,8 kW
Heating capacity 6,1 ÷ 20,8 kW



- Production of hot water up to 60 °C
- Production of hot domestic water with outside temperatures from -20 °C up to 42 °C
- Quick & easy installation



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

All the units are equipped with inverter scroll compressors, axial fans, external coils with aluminium fins, a plate heat exchanger on the side. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

X With inverter pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Version with Integrated hydronic kit

If a plug&play solution is required, there's also a version with an integrated hydronic unit containing the main hydraulic components including the water filter (supplied).

■ The water filter must be installed to validate the warranty.

CONTROL PCO

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

ACCESSORIES

MODU485K: RS-485 simplified interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

PGD1: Allows you to control the unit at a distance.

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.

SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

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: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

VT: Anti-vibration supports.

BDX: Condensate drip.

BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES

KR: Anti-freeze electric heater for the plate heat exchanger.

KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	020	025	040	045	070	075	080
MOD485K	°X	*	*	*	*	*	*	*
MULTICONTROL	°X	*	*	*	*	*	*	*
PGD1	°X	*	*	*	*	*	*	*
PR3	°X	*	*	*	*	*	*	*
SAF (1)	°X	*	*	*	*	*	*	*
SDHW (2)	°X	*	*	*	*	*	*	*
SPLW (3)	°X	*	*	*	*	*	*	*

(1) For more information about SAF refer to the dedicated documentation.

(2) Probe required for MULTICONTROL for managing the domestic hot water system.

(3) Probe required for MULTICONTROL to manage the secondary circuit system.

Condensation control temperature

Ver	020	025	040	045	070	075	080
°X	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71

Antivibration

Ver	020	025	040	045	070	075	080
°X	VT9	VT9	VT9	VT9	VT9	VT9	VT9

Condensate drip

Ver	020	025	040	045	070	075	080
°X	BDX30	BDX30	BDX30	BDX30	BDX50	BDX50	BDX50

Heater exchanger

Ver	020	025	040	045	070	075	080
°X	KR2	KR2	KR2	KR2	KR2	KR2	KR2

A grey background indicates the accessory must be assembled in the factory

Electric heater kit for the base

Ver	020	025	040	045	070	075	080
°X	KRB1 (1)	KRB1 (1)	KRB1 (1)	KRB1 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	ANKI
5,6,7	Size 020, 025, 040, 045, 070, 075, 080
8	Model
H	Heat pump
9	Version
°	Standard
X	With inverter pump
10	Heat recovery
°	Without heat recovery
11	Coils
°	Copper-aluminium
V	Copper-painted aluminium
12	Fans
°	Standard
F	Phase cut
J	Inverter
13	Operating yield
°	Electronic thermostatic expansion valve
14	Evaporator
°	Standard
15	Power supply
M	230V ~ 50Hz (1)
T	400V ~ 3N 50Hz (2)
16	Field for future development
°	Future developments

(1) For sizes from 020 ÷ 045

(2) For sizes from 070 ÷ 080

PERFORMANCE SPECIFICATIONS

ANKI - (°) - (230V ~ 50Hz / 400V 3N ~ 50Hz)

Size		020	025	040	045	070	075	080
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	5,8	7,3	9,4	11,7	13,7	16,4	18,5
Input power	kW	2,0	2,6	3,2	4,3	4,8	6,2	7,7
Cooling total input current - 230V	A	8,3	11,0	14,0	18,0	-	-	-
Cooling total input current - 400V	A	-	-	-	-	7,3	9,4	11,0
EER	W/W	2,93	2,75	2,94	2,75	2,82	2,63	2,41
Water flow rate system side	l/h	1005	1256	1613	2024	2354	2818	3196
Pressure drop system side	kPa	16	22	13	19	17	25	31
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	6,2	7,8	9,3	12,3	15,3	17,7	20,2
Input power	kW	1,9	2,4	3,0	4,1	4,8	6,0	7,2
Heating total input current - 230V	A	8,2	10,0	13,0	18,0	-	-	-
Heating total input current - 400V	A	-	-	-	-	7,3	9,1	11,0
COP	W/W	3,23	3,18	3,06	3,01	3,18	2,94	2,80
Water flow rate system side	l/h	1077	1345	1619	2131	2660	3072	3507
Pressure drop system side	kPa	14	21	10	17	17	23	30

(1) Data 14511:2018; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANKI - (X) - (230V ~ 50Hz / 400V 3N ~ 50Hz)

Size		020	025	040	045	070	075	080
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	5,9	7,4	9,5	11,8	13,8	16,5	18,7
Input power	kW	2,0	2,6	3,1	4,2	4,8	6,2	7,7
Cooling total input current - 230V	A	8,9	12,0	14,0	19,0	-	-	-
Cooling total input current - 400V	A	-	-	-	-	8,3	10,0	12,0
EER	W/W	3,00	2,82	3,01	2,81	2,88	2,68	2,44
Water flow rate system side	l/h	1005	1256	1613	2024	2354	2818	3196
Useful head system side	kPa	75	68	73	60	82	62	43
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	6,1	7,7	9,2	12,2	15,2	17,6	20,1
Input power	kW	1,9	2,4	3,0	4,0	4,8	6,0	7,2
Heating total input current - 230V	A	8,7	11,0	14,0	18,0	-	-	-
Heating total input current - 400V	A	-	-	-	-	8,2	10,0	12,0
COP	W/W	3,23	3,19	3,07	3,02	3,19	2,95	2,80
Water flow rate system side	l/h	1077	1345	1619	2131	2660	3072	3507
Useful head system side	kPa	76	67	74	59	73	55	33

(1) Data 14511:2018; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		020	025	040	045	070	075	080
Cooling capacity with low leaving water temp (UE n° 2016/2281)								
SEER	°	W/W	3,50	3,54	3,76	3,77	3,49	3,44
	X	W/W	4,12	4,25	4,38	4,37	3,78	3,77
η _{sc}	°	%	137,10	138,40	147,30	147,70	136,70	135,60
	X	%	161,70	167,00	172,30	171,90	148,00	149,40

Size		020	025	040	045	070	075	080
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 70 kW (1)								
Pdesignh	°X	kW	-	-	9	12	-	-
	°	kW	-	-	3,40	3,20	-	-
SCOP	X	-	-	3,60	3,35	-	-	-
	°	%	-	-	133,00	125,00	-	-
η _{sh}	X	%	-	-	141,00	131,00	-	-
	°X	-	-	A+	A+	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

Size		020	025	040	045	070	075	080
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 70 kW (1)								
Pdesignh	°	kW	6	7	-	-	14	16
	X	kW	5	7	-	-	13	16
SCOP	°	-	2,88	2,90	-	-	2,90	2,88
	X	-	2,90	2,95	-	-	2,88	2,88
η _{sh}	°	%	112,00	113,00	-	-	113,00	112,00
	X	%	113,00	115,00	-	-	112,00	112,00
Efficiency energy class	°X	A+	A+	-	-	A+	A+	A+

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

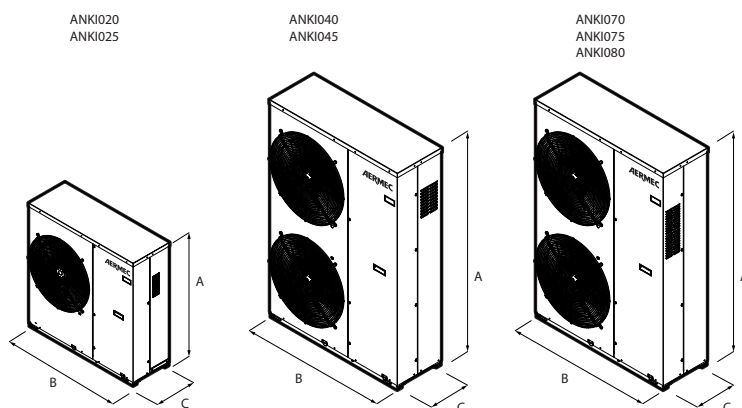
Size			020	025	040	045	070	075	080
Electric data									
Maximum current (FLA)	°	A	12,1	14,1	20,0	23,6	12,5	13,5	15,0
	X	A	12,9	14,9	20,8	24,4	13,6	14,6	16,1
Peak current (LRA)	°	A	8,0	8,0	10,0	10,0	15,0	15,0	15,0
	X	A	8,8	8,8	10,8	10,8	16,1	16,1	16,1
Power supply									
Power supply	°X		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz

GENERAL TECHNICAL DATA

Size			020	025	040	045	070	075	080
Compressor									
Type	°X	type	Rotary	Rotary	Rotary	Rotary	Scroll	Scroll	Scroll
Compressor regulation	°X	Type				Inverter			
Number	°X	no.	1	1	1	1	1	1	1
Circuits	°X	no.	1	1	1	1	1	1	1
Refrigerant	°X	type				R410A			
Refrigerant charge	°X	kg	1,4	1,4	2,3	2,3	3,5	3,5	3,5
System side heat exchanger									
Type	°X	type				Brazed plate			
Number	°X	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°X	Type				Gas-M			
Size (in)	°X	Ø				1"			
Size (out)	°X	Ø				1"			
Fan									
Type	°X	type				Axial			
Fan motor	°X	type				Asynchronous			
Number	°X	no.	1	1	2	2	2	2	2
Air flow rate	°X	m³/h	3590	3590	7480	7480	7400	7400	7400
Sound data calculated in cooling mode (1)									
Sound power level	°X	dB(A)	64,0	65,4	66,7	67,7	67,7	69,0	69,0
Sound pressure level (10 m)	°X	dB(A)	32,7	34,1	35,4	36,3	36,3	37,6	37,6

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			020	025	040	045	070	075	080
Dimensions and weights									
A	°X	mm	1028	1028	1481	1481	1481	1481	1481
B	°X	mm	1000	1000	1000	1000	1000	1000	1000
C	°X	mm	346	346	346	346	450	450	450
Empty weight	°	kg	80	80	113	113	174	174	174
	X	kg	82	82	115	115	178	178	178

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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HMI

Reversible air/water heat pump

Cooling capacity 3,0 ÷ 14,5 kW
 Heating capacity 4,0 ÷ 15,5 kW

- New R32 ecological refrigerant gas
- Production of hot water up to 60 °C
- Production of hot domestic water with external temperatures from -25 °C to 48 °C
- Quick & easy installation



DESCRIPTION

Reversible outdoor heat pump for air-conditioning systems where, in addition to cooling rooms, high-temperature hot water is required for heating or for the production of domestic hot water. **For the production of DHW it is mandatory to combine it with the domestic hot water storage tank DHWT300S.**

HMI is designed to meet the needs of both the new constructions market and the renovation market, **replacing or working alongside conventional boilers.**

It can be combined with low-temperature emission systems such as floor heating or fan coils, and also with more traditional radiators, **and comes supplied with the main hydraulic components needed, thereby facilitating the final installation.**

FEATURES

Operating limits

Working at full load up to -25 °C outside air temperature in winter, and up to 48 °C in summer. Maximum temperature of water produced in heating mode 60 °C.

- Refrigerant circuit with economizer.
- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Electronic expansion valve.

Main hydraulic components

- Inverter pump.
- Plate heat exchanger.
- Expansion tank
- Safety valve.
- Flow switch.
- Water filter supplied (**mandatory installation**).

Regulation

Adjustment via a **multi-language touch-screen control panel:**

- Management of a 3 way diverting valve (not supplied) for the production of domestic hot water.
- Management of a 2 way valve (not supplied) for shutting off part of the system.
- Weekly programming in time periods.
- **Auto-restart** function.
- Emergency operation (a supplementary heat source may be activated).
- **Quick hot water** function, for quickly heating domestic hot water.
- **Weather dependent mode** function for climate control.
- **Quiet** function for reduced noise operation (programmable with a timer).
- Condensation check
- When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



ACCESSORIES

DHWT300S: (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.

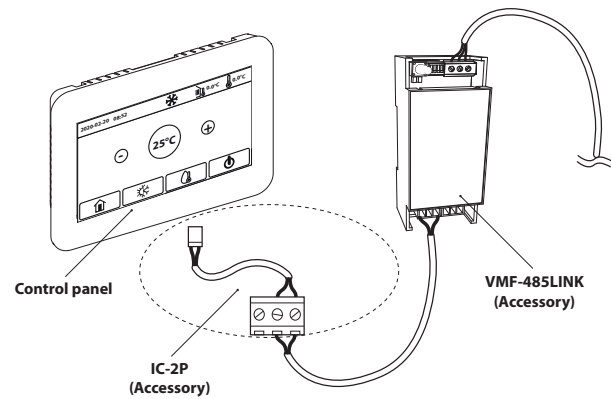
HMICB15: Connection cable for the control panel. Cable length 15m.

IC-2P: Connector for communication via Mod Bus or VMF-485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

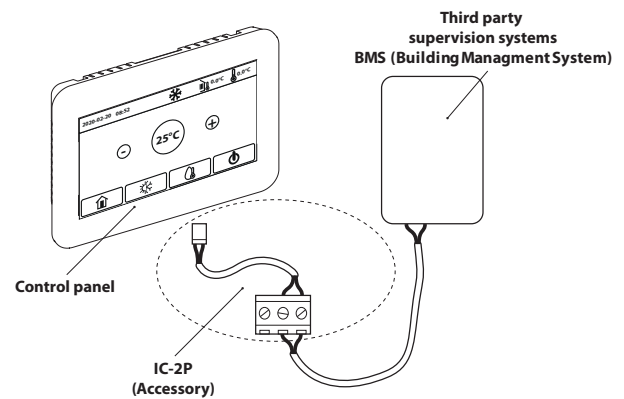
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

For more information about VMF system, refer to the dedicated documentation.

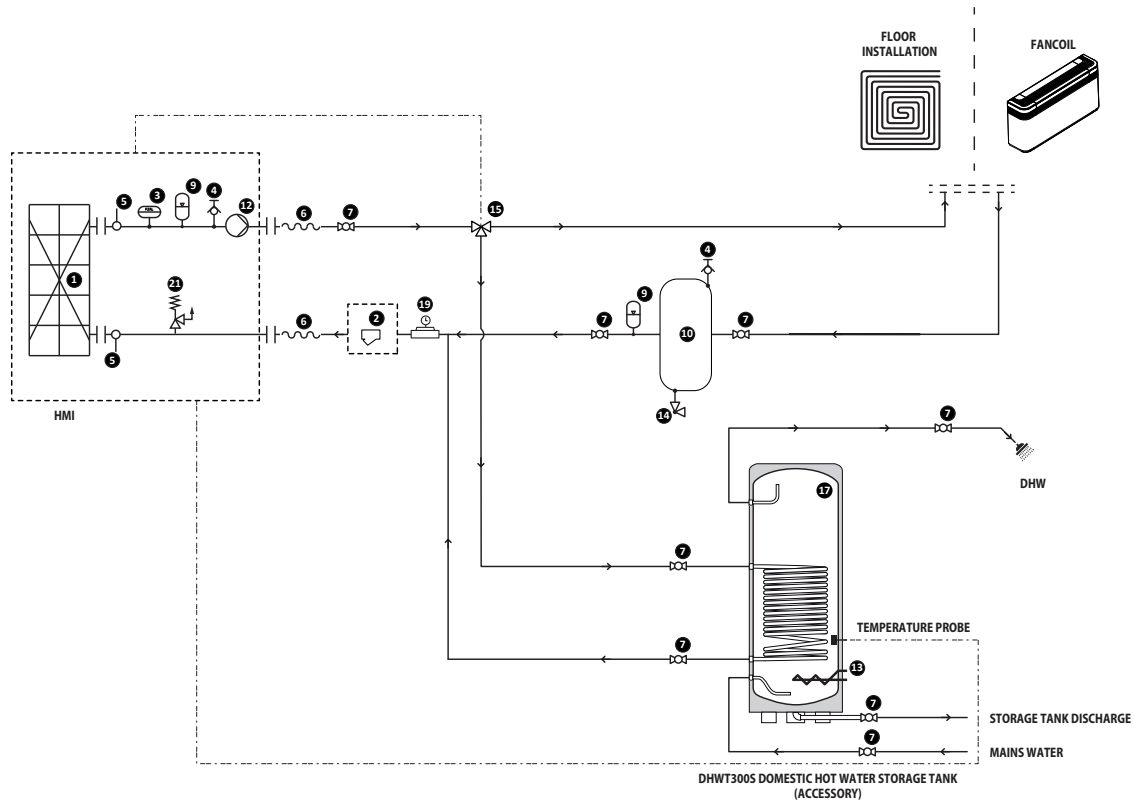
Connection with VMF-485LINK



Connection with third party supervision systems



FLOOR SYSTEM + DHW



COMPONENTS AS STANDARD

- 1 Plate heat exchanger
- 2 Water filter (supplied)
- 3 Flow switch
- 4 Air drain valve
- 5 Water temperature sensor (IN/OUT)
- 9 Expansion tank
- 12 Pump
- 21 Safety valve

WARNING: in the case of a free-standing system, the bypass valve must be installed to ensure the circulation of a minimum amount of water to the system.

HYDRAULIC COMPONENTS NOT PROVIDED AND RESPONSIBILITY OF THE INSTALLER

- 4 Air drain valve
- 6 Anti-vibration joints
- 7 Flow shut-off valve
- 9 Expansion tank
- 10 System storage tank (installation recommended if the system water content is lower than the value indicated in the technical manual).
- 13 Electric heater
- 14 Drain tap
- 15 3 way valve
- 17 DHWT300S Accessory
- 19 Loading unit

PERFORMANCE SPECIFICATIONS

EUROVENT TECHNICAL DATA 14511:2013

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performances 12 °C / 7 °C - 14511:2013 (1)												
Cooling capacity	kW	3,00	4,00	5,00	7,80	7,80	9,50	9,50	12,00	12,00	13,00	13,00
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Cooling total input current	A	4,3	5,9	7,7	11,4	4,0	14,7	4,7	19,0	6,7	22,7	7,5
EER	W/W	3,19	3,10	3,11	3,15	2,95	2,97	3,05	2,90	2,74	2,62	2,65
Water flow rate system side	l/h	516	672	860	1320	1270	1650	1665	2080	2065	2270	2231
Useful head system side	kPa	75	74	74	71	71	65	64	51	51	45	46
Heating performances 40 °C / 45 °C - 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Heating total input current	A	4,6	7,2	9,2	12,4	4,1	15,9	5,3	19,1	6,4	21,5	7,1
COP	W/W	4,00	3,80	3,75	3,70	3,70	3,45	3,45	3,35	3,35	3,30	3,30
Water flow rate system side	l/h	690	977	1240	1700	1710	2050	2040	2500	2474	2700	2734
Useful head system side	kPa	74	73	72	63	63	52	52	37	38	30	29

(1) Data 14511:2013; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2013; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performances 23 °C / 18 °C - 14511:2013 (1)												
Cooling capacity	kW	3,80	5,80	6,80	8,80	8,80	11,00	11,00	12,50	12,50	14,50	14,50
Input power	kW	0,82	1,32	1,55	1,96	1,96	2,56	2,56	3,05	3,05	3,82	3,82
Cooling total input current	A	3,8	6,0	7,1	9,0	3,0	11,7	3,9	14,0	4,6	17,5	5,8
EER	W/W	4,63	4,39	4,39	4,49	4,49	4,30	4,30	4,10	4,10	3,80	3,80
Water flow rate system side	l/h	660	981	1220	1510	1500	1926	1900	2238	2200	2640	2570
Useful head system side	kPa	74	73	72	69	69	56	57	46	47	32	34
Heating performances 30 °C / 35 °C - 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	0,79	1,20	1,63	2,17	2,17	2,64	2,64	3,22	3,22	3,60	3,60
Heating total input current	A	3,6	5,5	7,5	9,9	3,3	12,1	4,0	14,7	4,9	16,5	5,5
COP	W/W	5,10	5,00	4,60	4,61	4,61	4,55	4,55	4,35	4,35	4,31	4,31
Water flow rate system side	l/h	690	1030	1247	1736	1720	2137	2100	2524	2400	2703	2626
Useful head system side	kPa	74	73	72	62	62	49	50	36	40	30	32

(1) Data 14511:2013; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data 14511:2013; System side water heat exchanger 30 °C / 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

EUROVENT TECHNICAL DATA 14511:2018

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	2,98	3,97	4,96	7,75	7,75	9,45	9,45	11,94	11,94	12,95	12,95
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Cooling total input current	A	4,7	6,4	7,9	12,0	4,6	15,0	5,3	20,0	7,3	23,0	8,1
EER	W/W	3,17	3,08	3,08	3,12	2,94	2,95	3,04	2,88	2,73	2,61	2,64
Water flow rate system side	l/h	504	673	842	1318	1318	1609	1609	2038	2038	2210	2210
Useful head system side	kPa	74	74	74	69	69	64	64	52	52	47	47
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	4,03	6,04	7,55	10,06	10,06	12,06	12,06	14,05	14,05	15,54	15,54
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Heating total input current	A	5,1	7,8	9,7	13,0	4,7	17,0	5,9	20,0	6,9	22,0	7,7
COP	W/W	4,03	3,83	3,78	3,72	3,72	3,46	3,46	3,36	3,36	3,31	3,31
Water flow rate system side	l/h	710	1062	1326	1762	1762	2110	2110	2456	2456	2714	2714
Useful head system side	kPa	74	73	71	60	60	50	50	39	39	29	29

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ~ 70 kW (1)												
Pdesignh	kW	5	5	6	9	9	11	11	11	11	13	13
ηsh	%	185,00	185,00	183,00	176,00	176,00	175,00	175,00	168,00	168,00	164,00	164,00
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A++	A++	A++	A++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ~ 70 kW (2)												
Pdesignh	kW	6	6	7	8	8	10	10	11	11	13	13
ηsh	%	126,00	126,00	127,00	128,00	128,00	126,00	126,00	125,00	125,00	125,00	125,00
Efficiency energy class		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

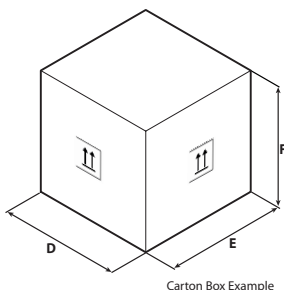
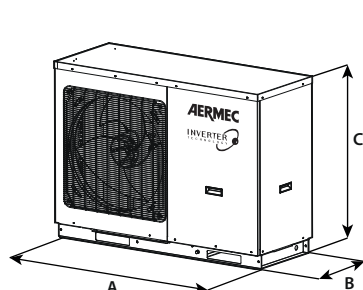
GENERAL TECHNICAL DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T	
Electric data													
Rated current input (1)	A	10,4	10,4	10,4	23,0	12,0	25,0	12,0	29,0	12,0	29,0	12,0	
Compressor													
Type	type	Rotary DC Inverter											
Number	no.	1	1	1	1	1	1	1	1	1	1	1	
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1	
Refrigerant	type	R32											
Potential global heating	GWP	675 kgCO ₂ eq											
Refrigerant charge	kg	0,9	0,9	0,9	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	
Oil	Type	FW68DA											
Total oil charge	kg	0,5	0,5	0,5	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	
System side heat exchanger													
Type	type	Brazen plate											
Number	no.	1	1	1	1	1	1	1	1	1	1	1	
Connections (in/out)	Type	Male Gas											
Size (in)	Ø	1"											
Size (out)	Ø	1"											
Fan													
Type	type	Axial											
Fan motor	type	Inverter											
Number	no.	1	1	1	1	1	1	1	1	1	1	1	
Air flow rate	m ³ /h	2600	2600	2600	4500	4500	4500	4500	4500	4500	4500	4500	
Sound data calculated in cooling mode (2)													
Sound pressure level (1 m)	dB(A)	51,0	52,0	53,0	56,0	56,0	56,0	56,0	57,0	57,0	59,0	59,0	
Sound data calculated in heating mode (2)													
Sound power level	dB(A)	64,0	64,0	65,0	69,0	69,0	69,0	69,0	70,0	70,0	72,0	72,0	
Sound pressure level in heating mode (1 m)	dB(A)	50,0	50,0	51,0	54,0	54,0	54,0	54,0	55,0	55,0	57,0	57,0	
Power supply													
Power supply		220-240V ~ 50Hz				380-415V 3N ~ 50Hz		220-240V ~ 50Hz		380-415V 3N ~ 50Hz		220-240V ~ 50Hz	

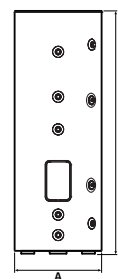
(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Carton Box Example



		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Dimensions and weights												
A	mm	1150	1150	1150	1200	1200	1200	1200	1200	1200	1200	1200
B	mm	345	345	345	460	460	460	460	460	460	460	460
C	mm	758	758	758	878	878	878	878	878	878	878	878
D	mm	1260	1260	1260	1295	1295	1295	1295	1295	1295	1295	1295
E	mm	490	490	490	595	595	595	595	595	595	595	595
F	mm	900	900	900	1020	1020	1020	1020	1020	1020	1020	1020
Empty weight	kg	96	96	96	151	151	151	151	151	151	151	151
Weight for transport	kg	109	109	109	166	166	166	166	166	166	166	166
DHWT300S												
Dimensions and weights												
A	mm	620										
B	mm	1725										
Net weight	kg	140										

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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BHP

Reversible air/water split heat pump

Cooling capacity 3,2 ÷ 8,5 kW
Heating capacity 4,0 ÷ 9,5 kW



- Indoor unit available in two versions, with and without DHW
- New R32 ecological refrigerant gas
- Production of hot water up to 60 °C
- Anti-legionella function
- Multi-language touch-screen control panel



DESCRIPTION

BHP It's the new "split" type inverter heat pump system, more efficient than standard boiler systems as it guarantees sustainable, efficient heating, cooling and domestic hot water supply in every season. BHP is designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.

The system can be installed in systems with any hydronic terminal, and is already supplied with the main hydraulic components, thus facilitating final installation.

The indoor unit comes in two versions:

- BHP_W **wall-mounting**, without DHW storage tank but complete with a 3-way DHW-system diverting valve. **For the production of DHW it is mandatory to combine it with the domestic hot water storage tank DHWT300S.**
- BHP_F **with base**, complete with DHW storage tank.

FEATURES

Main hydraulic components

BHP outdoor unit

- inverter compressor,
- finned pack heat exchanger with copper pipes and aluminium fins, with protective golden fin treatment,
- economizer,
- electronic valve,
- DC axial brushless fan,
- electric heater for the base.

BHP_W wall indoor unit

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- supplementary electric heater,
- 3 way valve,

- DHW-system connections,
- water filter supplied (**mandatory installation**).

BHP_F indoor base unit

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- supplementary electric heater,
- 3 way valve,
- DHW-system connections,
- water filter supplied (**mandatory installation**),
- DHW storage tank of 185 litres with coil and supplementary electric heater, and anti-legionella function,
- tank with magnesium sacrificial anode.

The indoor and outdoor units are connected by means of suitably sized cooling lines (supplied by the installer).

Cooling circuit use R32 refrigerant with low GWP.

Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

Regulations

Adjustment via **multi-language touch-screen control panel**:

- management of a 3-way diverting valve for the production of domestic hot water,
- management of a 2 way valve (not supplied) for shutting off part of the system,
- weekly programming in time periods,
- **auto-restart** function,
- emergency operation,
- **quick hot water** function, for quickly heating domestic hot water,
- **weather dependent mode** function for climate control,
- **quiet** function for reduced noise operation (programmable with a timer),

- condensation check,
- when the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.



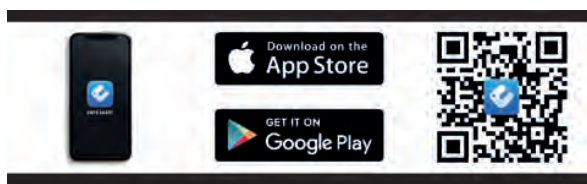
Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



ACCESSORIES

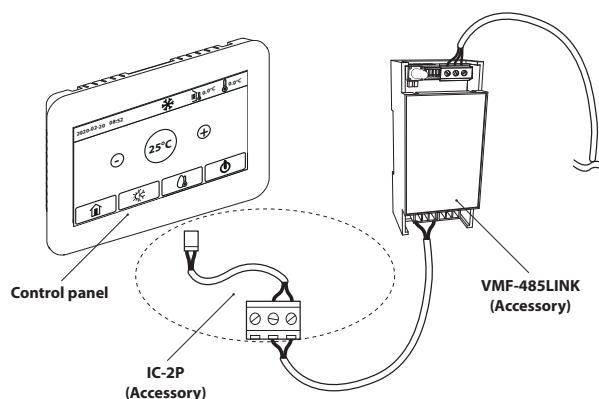
DHWT300S: (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.

For the production of DHW it is mandatory to combine it with BHP_W.

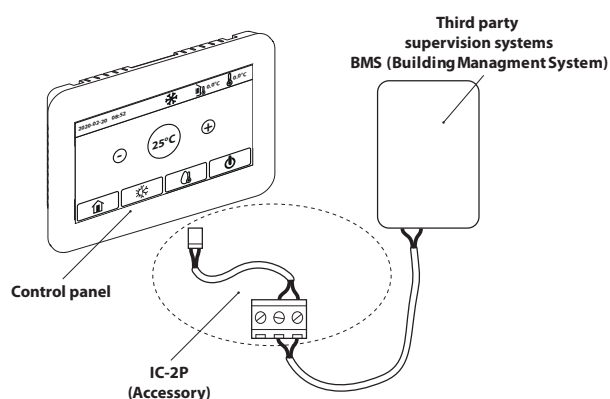
IC-2P: Connector for communication via Mod Bus or VMF-485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

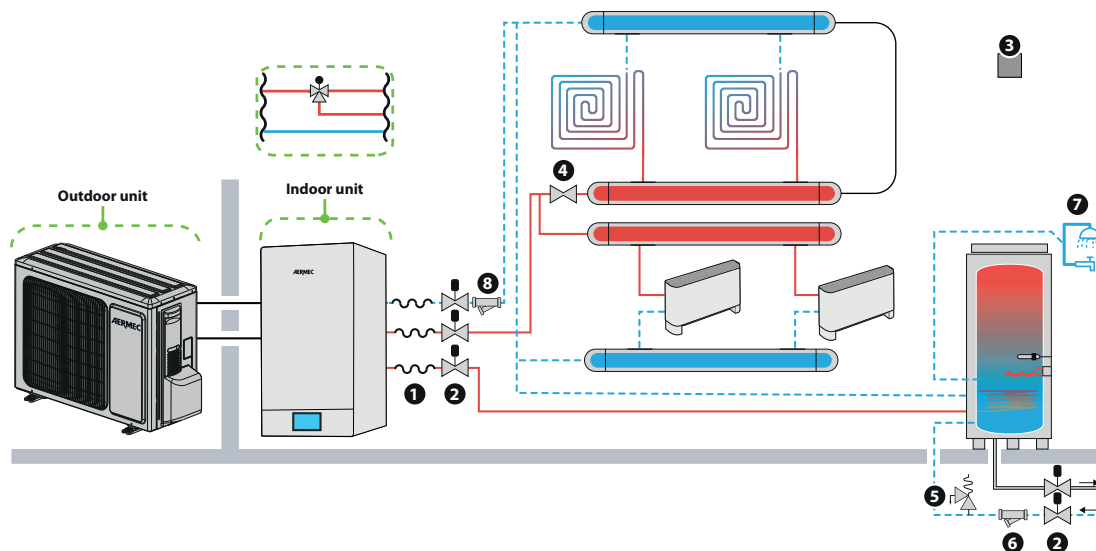
Connection with VMF-485LINK



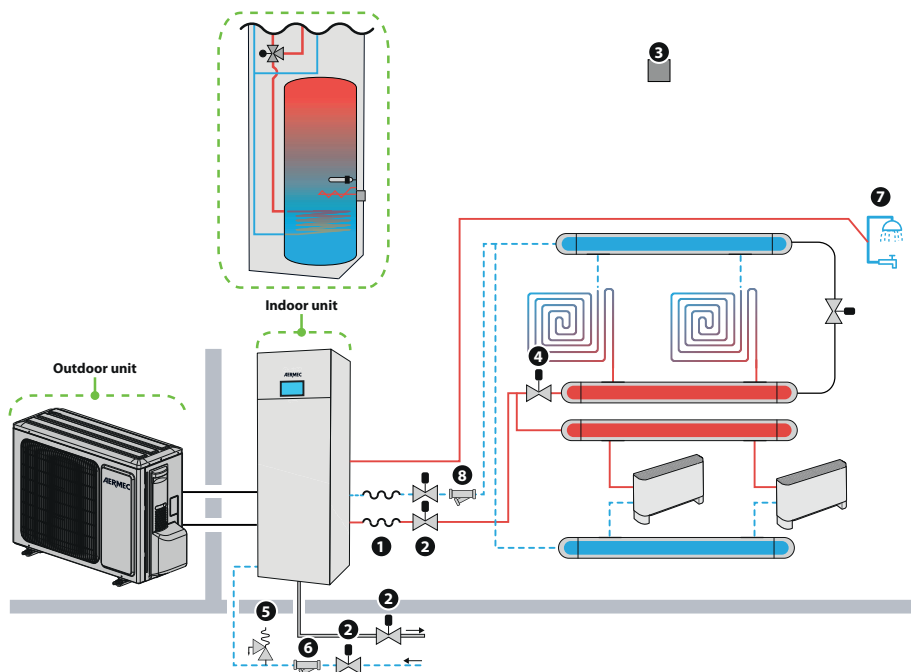
Connection with third party supervision systems



BHP_W: DOMESTIC HOT WATER STORAGE TANK CONNECTION AND CONNECTION TO THE FLOOR SYSTEM AND FCU



BHP_F: CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

- Plate heat exchanger
- Flow switch
- Inverter pump
- Expansion vessel
- Drain valve
- Pressure relief valve
- Supplementary electric heater
- 3 way valve
- DHW-system connections

SUPPLIED HYDRAULIC COMPONENTS

- 8 Water filter supplied (**mandatory installation**)

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Flow shut-off valves
3. Ambient thermostat
4. 2 way valve
5. Safety valve **NOT supplied (installation is mandatory)**
6. Water filter **NOT supplied (installation is mandatory)**
7. Hot domestic water

- High temperature line
- Low temperature line

PERFORMANCE SPECIFICATIONS

Technical data Wall unit

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W
Outdoor unit		BHP040	BHP060	BHP080	BHP100
Cooling performance 12 °C / 7 °C					
Cooling capacity	kW	3,15	4,09	5,30	6,50
Input power	kW	0,92	1,28	1,73	2,27
EER	W/W	3,42	3,20	3,06	2,86
Heating performance 40 °C / 45 °C					
Heating capacity	kW	4,00	5,90	8,00	9,50
Input power	kW	1,02	1,51	2,14	2,64
COP	W/W	3,92	3,91	3,74	3,60
Cooling performance 23 °C / 18 °C					
Cooling capacity	kW	3,80	5,80	7,00	8,50
Input power	kW	0,82	1,32	1,75	2,24
EER	W/W	4,63	4,40	4,00	3,79
Heating performance 30 °C / 35 °C					
Heating capacity	kW	4,00	6,00	8,00	9,50
Input power	kW	0,78	1,20	1,70	2,07
COP	W/W	5,13	5,00	4,71	4,59

Technical data base unit

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		BHP040	BHP060	BHP080	BHP100
Cooling performance 12 °C / 7 °C					
Cooling capacity	kW	3,15	4,09	5,30	6,50
Input power	kW	0,92	1,28	1,73	2,27
EER	W/W	3,42	3,20	3,06	2,86
Heating performance 40 °C / 45 °C					
Heating capacity	kW	4,00	5,90	8,00	9,50
Input power	kW	1,02	1,51	2,14	2,64
COP	W/W	3,92	3,91	3,74	3,60
Cooling performance 23 °C / 18 °C					
Cooling capacity	kW	3,80	5,80	7,00	8,50
Input power	kW	0,82	1,32	1,75	2,24
EER	W/W	4,63	4,40	4,00	3,79
Heating performance 30 °C / 35 °C					
Heating capacity	kW	4,00	6,00	8,00	9,50
Input power	kW	0,78	1,20	1,70	2,07
COP	W/W	5,13	5,00	4,71	4,59

ENERGY DATA

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W
Outdoor unit		BHP040	BHP060	BHP080	BHP100
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ~ 70 kW					
Pdesignh	kW	5	6	7	9
ηsh	%	183,50	178,70	181,00	181,00
Efficiency energy class		A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ~ 70 kW					
Pdesignh	kW	5	5	7	8
ηsh	%	128,00	127,40	129,00	127,00
Efficiency energy class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		XL	XL	XL	XL
Efficiency energy class		A	A	A	A
Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		BHP040	BHP060	BHP080	BHP100
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ~ 70 kW					
Pdesignh	kW	5	6	7	9
ηsh	%	184,00	179,00	181,00	181,00
Efficiency energy class		A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ~ 70 kW					
Pdesignh	kW	5	5	7	8
ηsh	%	128,00	127,00	129,00	127,00
Efficiency energy class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		L	L	L	L
Efficiency energy class		A	A	A	A

INDOOR UNIT

BHP_W indoor wall unit

		BHP060W	BHP100W
Electric data			
Rated power input (1)	kW	3,1	6,1
Electric heater			
Number	no.	2	2
Power of the single heater	kW	1,50	3,00
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Unit / system input	type	G1 female	
Mains water input	type		
Unit / system output	type	G1 female	
DHW output	type	G1 female	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	3,0	3,0
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	29,0	29,0
Power supply			
Power supply		230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

BHP_F indoor base unit

		BHP060F	BHP100F
Electric data			
Rated power input (1)	kW	3,1	6,1
Electric heater			
Number	no.	2	2
Power of the single heater	kW	1,50	3,00
System side heat exchanger			
Type	type	Braze plate	
Number	no.	1	1
Unit / system input	type	G1 female	
Mains water input	type	G1 female	
Unit / system output	type	G1 female	
DHW output	type	G1 female	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	3,0	3,0
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	29,0	29,0
Power supply			
Power supply		230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

OUTDOOR UNIT

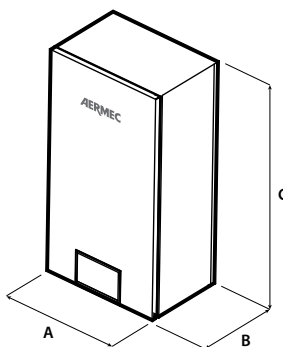
		BHP040	BHP060	BHP080	BHP100
Electric data					
Rated power input (1)	kW	2,3	2,3	4,3	5,6
Rated current input (1)	A	10,0	10,0	19,0	22,0
Compressor					
Type	type	Rotativo doppio stadio inverter			
Number	no.	1	1	1	1
Circuits	no.	1	1	1	1
Refrigerant	type	R32			
Refrigerant charge	kg	0,9	0,9	0,9	2,2
Potential global heating	GWP	675kgCO ₂ eq			
Oil					
Type	type	FW68DA			
Quantity	l	0,5	0,5	0,9	0,9
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")			
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")			
Exchanger					
Type	type	Finned coil			
Fin type	type	Golden fin			
Number	no.	1	1	1	1
Expansion vessel					
Type	type	Electronic expansion valve			
Number	no.	1	1	1	1
Fan					
Type	type	Inverter axial			
Fan motor	type	DC brushless			
Number	no.	1	1	1	1
Air flow rate	m ³ /h	3300	3300	3200	3200
Sound data calculated in cooling mode (2)					
Sound power level	dB(A)	62,3	62,3	68,0	68,0
Sound pressure level (1 m)	dB(A)	48,3	48,3	53,8	53,8
Sound pressure level (10 m)	dB(A)	52,0	52,0	55,0	55,0
Power supply					
Power supply		230V ~ 50Hz			

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

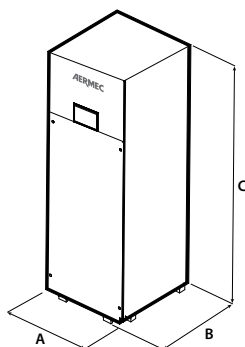
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS AND WEIGHTS

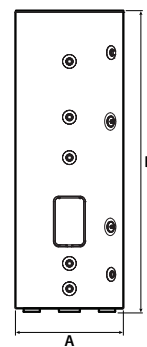
BHP_W



BHP_F



DHWT300S



BHP_W

		BHP060W	BHP100W
Indoor unit			
A	mm	460	460
B	mm	318	318
C	mm	860	860
D	mm	568	568
E	mm	390	390
F	mm	1133	1133
Net weight	kg	62	62
Weight for transport	kg	71	71

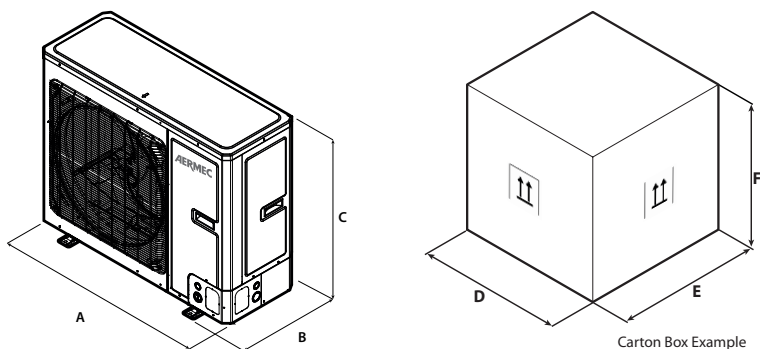
BHP_F

		BHP060F	BHP100F
Indoor unit			
A	mm	600	600
B	mm	600	600
C	mm	1755	1755
D	mm	803	803
E	mm	683	683
F	mm	2000	2000
Net weight	kg	210	210
Weight for transport	kg	233	233

DHWT300S

		DHWT300S
Dimensions and weights		
A	mm	620
B	mm	1725
Net weight	kg	140

BHP



BHP

		BHP040	BHP060	BHP080	BHP100
Outdoor unit					
A	mm	975	975	982	982
B	mm	396	396	427	427
C	mm	702	702	787	787
D	mm	1028	1028	1097	1097
E	mm	458	458	478	478
F	mm	830	830	937	937
Net weight	kg	55	55	82	82
Weight for transport	kg	65	65	92	92

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ANLI

Reversible heat pumps inverter

Cooling capacity 28,9 kW
Heating capacity 31,5 kW

- Version with built-in hydronic kit inverter
- High efficiency even at part load
- Production of hot domestic water (D.H.W.)



DESCRIPTION

Reversible Heat pumps units

VERSION

- ANLI_H** standard
ANLI_HX with inverter pump
ANLI_HP with on/off pump

OPERATIONAL LIMITS

Max. external air temperature 42°C, max. leaving water temperature 60°C

■ For more details on operating limits, refer to the technical documentation

- Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
- Perfect water temperature control even in systems with low water content
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation

Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:

- Constant ΔP : maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close
- Variable ΔP : reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)
- Water filter, differential pressure switch, depending on the model, fitted on all units.
- High efficiency heat exchangers with trace heating as standard
- Axial flow fan units for extremely quiet operation
- Fitted with EMC filters

The built-in hydraulic kit includes

- Expansion vessel
- Safety valve water side
- Air vent valve

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

ACCESSORIES

MODU-485BL: RS-485 interface for supervising systems with MODBUS protocol.

AERSET: accessory allows the automatic compensation of the operating set point of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory: MODU-485BL**

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

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

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced. **VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**

PR3: Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be controlled with a shielded cable at a distance up to 150 m.

DCPX: Allows correct operation, in cooling mode, with outside temperatures lower than 20 °C and as low as – 10 °C, in heating mode up to 42 °C.

BSKW: Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:

— BS6KW400T (6 kW, 400V/3/50Hz)

— BS9KW400T (9 kW, 400V/3/50Hz)

VT: Anti-vibration mounts.

SAF: Thermal accumulator for the instantaneous production of domestic hot water. **Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

ACCESSORIES FACTORY FITTED ONLY

KR: Electric anti-freeze resistance for plate heat exchanger.

KRB: Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

COMPATIBILITY WITH VMF SYSTEM

For further information on system, refer to specific documentation.

ACCESSORIES COMPATIBILITY

Size	Version	Power supply	101
MODU-485BL	all		•
AERSET	all		•
MULTICONTROL	all		•
SPLW	all		•
SDHW	all		•
VMF-CRP	all		•
PR3	all		•
BS6KW400T		400V/3N	•
BS9KW400T		400V/3N	•
SAF	all		•

Condensation control temperature

Version	101
all	DCPX53

Antivibration

Version	101
all	VT15

Electric anti-freeze resistance for exchanger

Version	101
all	KR100

A grey background indicates the accessories assembled in the factory

Electric anti-freeze resistance kit for base

Version	101
all	KRB3

A grey background indicates the accessories assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	ANLI
5,6,7	Size
	101
8	Model
H	Heat pump
9	Version
°	Standard
X	With inverter pump
P	With on/off pump
10	Heat recovery
°	Without heat recovery

Field	Description
11	Coil
°	Aluminium
R	Copper
S	Tinned copper
V	In painted aluminium-copper (epoxy paint)
12	Operating yield
°	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13	Evaporator
°	Standard
14	Power supply
T	400V/3N/50Hz

TECHNICAL DATA

ANLI - H

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	28,9
Input power	kW	11,7
Cooling total input current	A	16
EER		2,48
Water flow rate system side	l/h	4985
Pressure drop system side	kPa	50
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,5
Input power	kW	11,3
Heating total input current	A	16
COP		2,78
Water flow rate system side	l/h	5457
Pressure drop system side	kPa	59
Cooling performance 23 °C / 18 °C (3)		
Cooling capacity	kW	42,0
Input power	kW	13,7
EER		3,08
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	107
Heating performance 30 °C / 35 °C (4)		
Heating capacity	kW	33,4
Input power	kW	9,7
Heating total input current	A	13
COP		3,43
Water flow rate system side	l/h	5762
Pressure drop system side	kPa	66

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(4) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANLI - HX-HP

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,3
Input power	kW	11,9
Cooling total input current	A	18
EER		2,47
Water flow rate system side	l/h	4985
Pressure drop system side	kPa	175
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,2
Input power	kW	11,5
Heating total input current	A	17
COP		2,70
Water flow rate system side	l/h	5457
Pressure drop system side	kPa	158
Cooling performance 23 °C / 18 °C (3)		
Cooling capacity	kW	42,6
Input power	kW	13,8
EER		3,08
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	81
Heating performance 30 °C / 35 °C (4)		
Heating capacity	kW	33,0
Input power	kW	9,9
Heating total input current	A	15
COP		3,33
Water flow rate system side	l/h	5762
Pressure drop system side	kPa	147

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(4) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size	Version	101
Cooling capacity with low leaving water temp (UE n° 2016/2281)		
SEER	H	W/W 3,81
	HX,HP	W/W 3,57
η_{sc}	H	% 149,2
	HX,HP	% 139,8
Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ° 70kW (1)		
Pdesignh	H	30
	HX	29
	HP	30
SCOP	H	2,73
	HX	3,23
	HP	3,25
η_{sh}	H	% 106
	HX	% 126
	HP	% 127
Efficiency Energy Class	H,HX,HP	A+

(1) Efficiencies for low temperature applications (35°C)

ELECTRIC DATA

Size	Version	101
Electric data ⁽¹⁾		
Maximum current (FLA)	A	H 21,00
Peak current (LRA)	A	H 30,00

(1) Unit standar configuration without hydronic kit

GENERAL TECHNICAL DATA

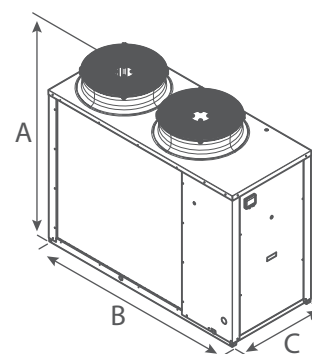
Size	101
Compressor	
Compressor	type/n° Scroll/1
Circuit	n° 1
Refrigerant	type R410A
System side heat exchanger	
Exchanger	type/n° Plates/1
Connections	(in/out) Ø 1"1/4
Axials fans	
Fans	type/n° On-Off/2
Air flow rate	m³/h 13200
Sound data ⁽¹⁾	
Sound power	dB(A) 76,0
Sound pressure	dB(A) 44,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

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

DIMENSIONS

Size	Version		101
Dimensions and weights			
A	all	mm	1450
B	all	mm	1750
C	all	mm	750
Empty weight	H	kg	293
	HX/HP	kg	308



ANLI 101H

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANK 020-150

Reversible air/water heat pump

Cooling capacity 6,8 ÷ 39,8 kW
Heating capacity 8,0 ÷ 35,3 kW

- Production of hot water up to 60 °C
- Production of hot domestic water with external temperatures from -20 °C up to 42 °C
- Compact dimensions
- Quick & easy installation



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

Equipped with scroll compressors, axial fans, external coil with aluminium fins, plate heat exchanger on the side.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

P With pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Soft-start

Le unità monofase sono equipaggiate di serie del Soft-start, un dispositivo elettronico per la riduzione della corrente di spunto

Version with Integrated hydronic kit

To have a Plug & Play solution is also available the version with the integrated Hydronic group that contains the main hydraulic components including the water filter.

Inverter fan

Inverter fans as standard in size up 020 to 085 in all versions.

■ The DCPX accessory is not required for these sizes.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

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

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

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

VT: Anti-vibration supports.

BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES**DRE:** Electronic device for peak current reduction.**KRB:** Electric anti-freeze resistance kit for base.**BDX:** Condensate drip with resistance**COMPATIBILITY WITH VMF SYSTEM****For more information about VMF system, refer to the dedicated documentation.****ACCESSORIES COMPATIBILITY**

Model	Ver	020	030	040	045	050	085	100	150
AERSET	°A,P	*	*	*	*	*	*	*	*
MODU-485BL	°A,P	*	*	*	*	*	*	*	*
MULTICONTROL	°A,P	*	*	*	*	*	*	*	*
PR3	°A,P	*	*	*	*	*	*	*	*
SDHW (1)	°A,P	*	*	*	*	*	*	*	*
SPLW (2)	°A,P	*	*	*	*	*	*	*	*
VMF-CRP	°A,P	*	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

Ver	020	030	040	045	050	085	100	150
°A,P	-	-	-	-	-	-	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°A,P	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T

Power supply: M

°A,P	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	-	-	-	-	-
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Ver	020	030	040	045	050	085	100	150
°P	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°A,P	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES x 2 (1)	DRES x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°A,P	KRB1 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°A,P	BDX8	BDX9	BDX9	BDX9	BDX9	BDX9	-	-

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANK
4,5,6	Size 020, 030, 040, 045, 050, 085, 100, 150
7	Model
H	Heat pump
8	Version
°	Standard
A	With storage tank and pump
P	With pump
9	Execution
°	Standard
10	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
11	Operating yield
°	Standard mechanic thermostatic valve (1)
Y	Low temperature mechanic thermostatic valve (2)
Z	Low temperature electronic thermostatic valve (3)
12	Evaporator
°	Standard
13	Power supply
°	400V 3N ~ 50Hz (4)
M	230V ~ 50Hz (5)

(1) Water produced up to +4 °C

(2) Water produced from 0 °C ÷ -8 °C

(3) Water produced from +4 °C up to +0 °C

(4) For ANK 020 ÷ 045 sizes

(5) Only for ANK 020 ÷ 045 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANK - (°) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C/ 7 °C (1)									
Cooling capacity	kW	6,8	8,2	10,5	11,6	13,1	15,5	25,3	29,3
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,1	10,0
Cooling total input current	A	4,3	5,6	7,1	7,7	8,7	11,0	17,0	20,0
EER	W/W	2,93	2,91	2,98	2,93	3,03	3,00	3,12	2,92
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Pressure drop system side	kPa	16	9	16	14	18	24	32	36
Heating performance 40 °C/ 45 °C (2)									
Heating capacity	kW	8,0	10,0	12,2	14,0	15,3	17,4	27,1	33,3
Input power	kW	2,5	3,1	3,8	4,2	4,4	5,0	8,3	10,5
Heating total input current	A	4,7	6,2	7,6	8,0	9,0	10,0	18,0	21,0
COP	W/W	3,21	3,24	3,25	3,38	3,48	3,46	3,24	3,19
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Pressure drop system side	kPa	22	14	22	21	25	31	37	47
Power supply: M									
Cooling performance 12 °C/ 7 °C (1)									
Cooling capacity	kW	6,8	8,2	9,6	11,7	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	11,0	13,0	16,0	19,0	-	-	-	-
EER	W/W	2,92	2,91	2,97	3,16	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Pressure drop system side	kPa	16	9	14	14	-	-	-	-
Heating performance 40 °C/ 45 °C (2)									
Heating capacity	kW	8,0	10,0	10,9	13,5	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,8	-	-	-	-
Heating total input current	A	12,0	15,0	17,0	19,0	-	-	-	-
COP	W/W	3,16	3,24	3,15	3,50	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Pressure drop system side	kPa	22	14	18	19	-	-	-	-

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14S11:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (P) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	10,6	11,7	13,2	15,7	25,6	29,7
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,2	10,4
Cooling total input current	A	4,9	6,2	7,8	8,7	9,8	12,0	18,0	22,0
EER	W/W	3,00	2,97	3,05	2,95	3,06	3,03	3,12	2,87
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Useful head system side	kPa	78	82	70	81	74	63	115	144
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	12,1	13,9	15,2	17,3	26,8	33,0
Input power	kW	2,4	3,0	3,7	4,2	4,4	5,0	8,4	10,8
Heating total input current	A	5,3	6,9	8,3	9,1	10,0	12,0	19,0	23,0
COP	W/W	3,22	3,26	3,27	3,35	3,46	3,44	3,18	3,05
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Useful head system side	kPa	72	76	61	68	59	50	105	109

Power supply: M**Cooling performance 12 °C / 7 °C (1)**

Cooling capacity	kW	6,9	8,2	9,7	11,8	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	12,0	14,0	16,0	20,0	-	-	-	-
EER	W/W	2,99	2,96	3,02	3,17	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Useful head system side	kPa	78	71	62	70	-	-	-	-

Heating performance 40 °C / 45 °C (2)

Heating capacity	kW	7,9	9,9	10,8	13,4	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,9	-	-	-	-
Heating total input current	A	13,0	15,0	18,0	20,0	-	-	-	-
COP	W/W	3,17	3,25	3,16	3,45	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Useful head system side	kPa	72	58	52	57	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (A) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	10,6	11,7	13,2	15,7	25,6	29,7
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,2	10,4
Cooling total input current	A	4,9	6,2	7,8	8,7	9,8	12,0	18,0	22,0
EER	W/W	3,00	2,97	3,05	2,95	3,06	3,03	3,12	2,87
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Useful head system side	kPa	78	82	70	81	74	63	115	144
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	12,1	13,9	15,2	17,3	26,8	33,0
Input power	kW	2,4	3,0	3,7	4,2	4,4	5,0	8,4	10,8
Heating total input current	A	5,3	6,9	8,3	9,1	10,0	12,0	19,0	23,0
COP	W/W	3,22	3,26	3,27	3,35	3,46	3,44	3,18	3,05
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Useful head system side	kPa	72	76	61	68	59	50	105	109

Power supply: M**Cooling performance 12 °C / 7 °C (1)**

Cooling capacity	kW	6,9	8,2	9,7	11,8	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	12,0	14,0	16,0	20,0	-	-	-	-
EER	W/W	2,99	2,96	3,02	3,17	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Useful head system side	kPa	78	71	62	70	-	-	-	-

Heating performance 40 °C / 45 °C (2)

Heating capacity	kW	7,9	9,9	10,8	13,4	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,9	-	-	-	-
Heating total input current	A	13,0	15,0	18,0	20,0	-	-	-	-
COP	W/W	3,17	3,25	3,16	3,45	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Useful head system side	kPa	72	58	52	57	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANK - (°) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C/ 18 °C (1)									
Cooling capacity	kW	9,5	11,4	14,7	16,2	18,2	21,7	34,0	39,4
Input power	kW	2,4	2,9	3,7	4,2	4,5	5,5	8,8	10,9
Cooling total input current	A	4,5	5,8	7,4	8,0	9,1	11,0	18,0	22,0
EER	W/W	3,88	3,86	3,95	3,89	4,02	3,96	3,86	3,61
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Pressure drop system side	kPa	31	18	31	27	35	47	58	66

Heating performance 30 °C/ 35 °C (2)

Heating capacity	kW	8,5	10,6	13,0	14,6	16,2	18,2	29,2	35,6
Input power	kW	2,1	2,6	3,1	3,5	3,8	4,3	6,9	8,8
Heating total input current	A	4,0	5,2	6,2	6,8	7,7	8,9	15,0	18,0
COP	W/W	4,03	4,04	4,20	4,15	4,31	4,18	4,21	4,07
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Pressure drop system side	kPa	25	15	25	22	28	33	43	53

Power supply: M

Cooling performance 23 °C/ 18 °C (1)

Cooling capacity	kW	9,5	11,4	13,3	16,3	-	-	-	-
Input power	kW	2,5	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	19,0	-	-	-	-
EER	W/W	3,86	3,86	3,94	4,19	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Pressure drop system side	kPa	31	18	27	27	-	-	-	-

Heating performance 30 °C/ 35 °C (2)

Heating capacity	kW	8,5	10,6	11,6	14,0	-	-	-	-
Input power	kW	2,2	2,6	2,8	3,3	-	-	-	-
Heating total input current	A	10,0	12,0	14,0	16,0	-	-	-	-
COP	W/W	3,96	4,04	4,08	4,30	-	-	-	-
Water flow rate system side	l/h	1473	1830	2001	2424	-	-	-	-
Pressure drop system side	kPa	25	15	21	20	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (A) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C/ 18 °C (1)									
Cooling capacity	kW	9,5	11,5	14,8	16,3	18,4	21,8	34,3	39,8
Input power	kW	2,4	2,9	3,6	4,2	4,5	5,5	8,9	11,4
Cooling total input current	A	5,1	6,5	8,1	9,2	10,0	12,0	19,0	24,0
EER	W/W	4,00	3,98	4,06	3,92	4,05	3,99	3,85	3,48
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Useful head system side	kPa	62	70	45	55	38	16	66	51

Heating performance 30 °C/ 35 °C (2)

Heating capacity	kW	8,4	10,5	12,9	14,5	16,1	18,0	28,9	35,3
Input power	kW	2,1	2,6	3,0	3,5	3,8	4,3	7,0	9,2
Heating total input current	A	4,6	5,9	6,9	7,9	8,8	10,0	16,0	20,0
COP	W/W	4,07	4,08	4,26	4,12	4,28	4,16	4,11	3,85
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Useful head system side	kPa	69	73	56	65	54	45	95	90

Power supply: M

Cooling performance 23 °C/ 18 °C (1)

Cooling capacity	kW	9,6	11,5	13,4	16,4	-	-	-	-
Input power	kW	2,4	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	20,0	-	-	-	-
EER	W/W	3,99	3,93	4,00	4,18	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Useful head system side	kPa	62	47	29	32	-	-	-	-

Heating performance 30 °C/ 35 °C (2)

Heating capacity	kW	8,6	10,8	11,9	13,8	-	-	-	-
Input power	kW	2,2	2,6	2,9	3,4	-	-	-	-
Heating total input current	A	11,0	13,0	15,0	17,0	-	-	-	-
COP	W/W	3,88	4,11	4,10	4,11	-	-	-	-
Water flow rate system side	l/h	1486	1877	2061	2397	-	-	-	-
Useful head system side	kPa	58	65	58	79	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (P) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,5	14,8	16,3	18,4	21,8	34,3	39,8
Input power	kW	2,4	2,9	3,6	4,2	4,5	5,5	8,9	11,4
Cooling total input current	A	5,1	6,5	8,1	9,2	10,0	12,0	19,0	24,0
EER	W/W	4,00	3,98	4,06	3,92	4,05	3,99	3,85	3,48
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Useful head system side	kPa	62	70	45	55	38	16	66	51
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,4	10,5	12,9	14,5	16,1	18,0	28,9	35,3
Input power	kW	2,1	2,6	3,0	3,5	3,8	4,3	7,0	9,2
Heating total input current	A	4,6	5,9	6,9	7,9	8,8	10,0	16,0	20,0
COP	W/W	4,07	4,08	4,26	4,12	4,28	4,16	4,11	3,85
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Useful head system side	kPa	69	73	56	65	54	45	95	90

Power supply: M

Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,6	11,5	13,4	16,4	-	-	-	-
Input power	kW	2,4	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	20,0	-	-	-	-
EER	W/W	3,99	3,93	4,00	4,18	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Useful head system side	kPa	62	47	29	32	-	-	-	-
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,6	10,8	11,9	13,8	-	-	-	-
Input power	kW	2,2	2,6	2,9	3,4	-	-	-	-
Heating total input current	A	11,0	13,0	15,0	17,0	-	-	-	-
COP	W/W	3,88	4,11	4,10	4,11	-	-	-	-
Water flow rate system side	l/h	1486	1877	2061	2397	-	-	-	-
Useful head system side	kPa	58	65	58	79	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C / 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,07	3,18	3,32	3,32	3,45	3,45	3,81	3,63
η_{sc}	%	120,00	124,00	130,00	130,00	135,00	135,00	149,00	142,00
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)									
Pdesignh	kW	7	9	11	13	14	16	26	32
SCOP		3,38	3,40	3,50	3,48	3,60	4,65	3,90	3,90
η_{sc}	%	132,00	133,00	137,00	136,00	141,00	183,00	153,00	153,00
Efficiency energy class		A+	A+	A+	A+	A+	A+	A++	A++
Power supply: M									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,07	3,18	3,27	3,55	-	-	-	-
η_{sc}	%	120,00	124,00	128,00	139,00	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)									
Pdesignh	kW	7	9	10	12	-	-	-	-
SCOP		3,33	3,40	3,43	3,55	-	-	-	-
η_{sc}	%	130,00	133,00	134,00	139,00	-	-	-	-
Efficiency energy class		A+	A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,09	3,20	3,39	3,33	3,46	3,50	3,74	3,50
η _{sc}	%	121,00	125,00	132,00	130,00	135,00	137,00	147,00	137,00
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)									
Pdesignh	kW	7	9	11	13	14	15	25	30
SCOP		3,45	3,50	3,58	3,53	3,65	3,45	3,83	3,70
η _{sc}	%	135,00	137,00	140,00	138,00	143,00	135,00	150,00	145,00
Efficiency energy class		A+	A+	A+	A+	A+	A+	A++	A++
Power supply: M									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,10	3,20	3,34	3,54	-	-	-	-
η _{sc}	%	121,00	125,00	131,00	138,00	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)									
Pdesignh	kW	7	9	10	12	-	-	-	-
SCOP		3,40	3,50	3,50	3,60	-	-	-	-
η _{sc}	%	133,00	137,00	137,00	141,00	-	-	-	-
Efficiency energy class		A+	A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

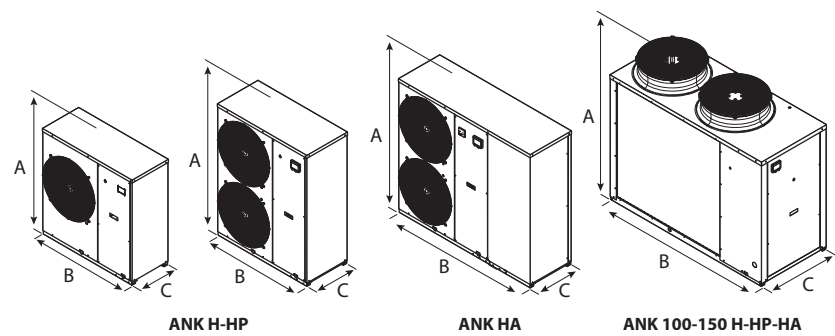
Size			020	030	040	045	050	085	100	150
Power supply: °										
Electric data										
Maximum current (FLA)	°	A	6,0	8,0	9,0	11,0	12,0	12,0	22,0	26,0
	A,P	A	6,8	8,4	9,8	11,9	13,1	13,6	23,6	28,9
Peak current (LRA)	°	A	40,0	40,0	54,0	61,0	71,0	91,0	73,0	105,0
	A,P	A	40,4	41,0	55,0	62,6	72,6	92,6	74,6	107,8
Peak current with Soft-start	°,A,P	A	-	-	-	-	-	-	-	-
Power supply: M										
Electric data										
Maximum current (FLA)	°	A	14,0	19,0	22,0	25,0	-	-	-	-
	A	A	14,6	20,1	22,9	26,3	-	-	-	-
	P	A	14,6	20,1	22,9	26,3	-	-	-	-
Peak current (LRA)	°,P	A	-	-	-	-	-	-	-	-
	A	A	-	-	-	-	-	-	-	-
	°	A	45,0	45,0	45,0	45,0	-	-	-	-
Peak current with Soft-start	A	A	45,7	45,7	45,7	46,3	-	-	-	-
	P	A	45,7	45,7	45,7	46,3	-	-	-	-

GENERAL TECHNICAL DATA

Size			020	030	040	045	050	085	100	150
Compressor										
Type	°,A,P	type								Scroll
Compressor regulation	°,A,P	Type								On-off
Number	°,A,P	no.	1	1	1	1	1	1	1	2
Circuits	°,A,P	no.	1	1	1	1	1	1	1	1
Refrigerant	°,A,P	type								R410A
Refrigerant charge	°,A,P	kg	2,9	4,3	4,3	5,5	6,0	6,0	12,0	14,5
System side heat exchanger										
Type	°,A,P	type								Brazed plate
Number	°,A,P	no.	1	1	1	1	1	1	1	1
Hydraulic connections										
Connections (in/out)	°,A,P	Type								Gas - F
Size (in)	°,A,P	Ø								1"¼
Size (out)	°,A,P	Ø								1"¼
Fan										
Type	°,A,P	type								Axial
Fan motor	°,A,P	type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous
Number	°,A,P	no.	1	1	2	2	2	2	2	2
Air flow rate	°,A,P	m³/h	3500	8000	8000	7500	7500	7500	14500	14500
Sound data calculated in cooling mode (1)										
Sound power level	°,A,P	dB(A)	68,0	70,5	70,5	70,5	70,5	70,5	77,0	78,0
Sound pressure level (10 m)	°,A,P	dB(A)	36,7	39,2	39,1	39,1	39,1	39,1	72,6	73,6

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			020	030	040	045	050	085	100	150
Dimensions and weights										
A	°A,P	mm	1028	1281	1281	1281	1281	1281	1450	1450
	°P	mm	1000	1000	1000	1000	1000	1000	1450	1450
B	A	mm	1358	1450	1450	1450	1450	1450	1750	1750
	°A,P	mm	400	400	450	450	450	450	750	750
C	°	kg	118	149	152	165	172	174	296	341
	A	kg	160	211	214	232	238	241	364	412
	P	kg	123	154	157	175	182	184	314	362
Empty weight										

Aermec reserves the right to make any modifications deemed necessary.
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SWP



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

- **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**

DESCRIPTION

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.

FEATURES

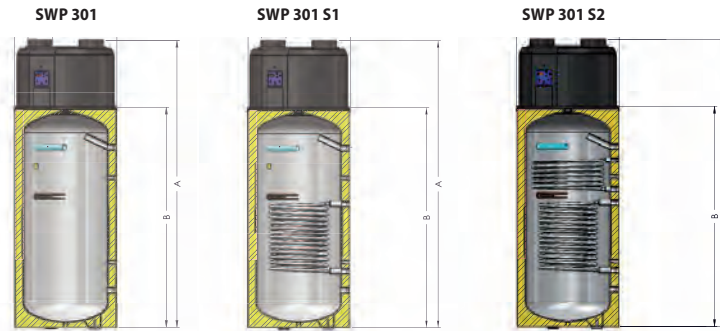
- Steel tank with a double vitrification
- Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
- Auxiliary coil to be used together with a boiler or solar panels
- Integrated NTC sensor to control the water temperature
- External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
- Anti-corrosion magnesium anode
- Hydraulic connections located at rear of unit
- Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
- Adjustable support feet
- Environmentally friendly refrigerant R134a
- Electric heater 1.5 kW 230V
- IEC power supply connector with insulating sheath
- High pressure safety devices
- Reciprocating hermetic compressor

- Radial fan with an adjustment of 40 % of the nominal flow rate
- Electronic controller:
 - water set point adjustment
 - external air temperature sensing
 - auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
 - record of run hours
 - control of minimum time between successive compressor starts
 - setting of parameters from the keyboard
 - control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
 - periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing
 - user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

Possible configurations

- Standard where the heat pump and the electric heater are the source of heat (SWP 301)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 301 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 301 S2)

DIMENSIONAL DATA (MM)

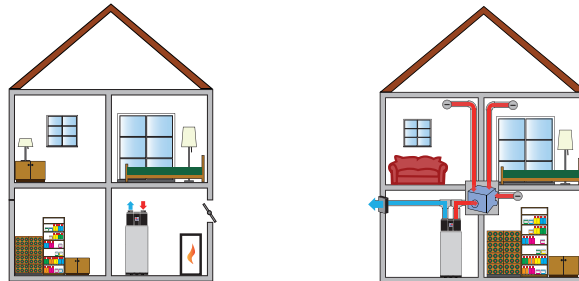


TECHNICAL DATA

		SWP 301	SWP 301S1	SWP 301S2
Tank capacity	l	273	268	265
Type of corrosion protection		sacrificial magnesium anode		
Water connection diameter inches	inch	1" F		
Condensate drain diameter inches	inch	1/2" F		
Maximum working pressure	bar	6		
Maximum working pressure of auxiliary coil (inf./sup.)	bar	10		
Auxiliary serpentine surface (inf./sup.)	m ²	/	1,5	0,6/1,5
Capacity required for the coil 80/60 °C (inf./sup.)	m ³ /h	/	1,6	0,6/1,6
Domestic hot water production 80/60 °C - 10/45 °C (DIN 4708)	m ³ /h	/	1,1	0,4/1,1
Empty weight	kg	112	127	145
Insulation thickness	mm	50		
Supply		230 - 1 - 50Hz		
Thermal power (1)	W	1950		
Electrical power absorbed (average) (1)	W	488		
Max absorbed electrical power	W	700		
Power absorbed in stand-by (Pes)	W	43		
COPDHW (2)		2,91		
Warm-up time (th) (1)	hh:mm	07:22		
Maximum volume of DHW usable at 40 °C (Vmax) (2)	l	370		
Max DHW temperature with heat pump	°C	60 (55 from the factory)		
Electric resistance power	W	1500		
Current consumption of electrical resistance	A	6,3		
Air flow	m ³ /h	450		
Useful static pressure	Pa	80		
Suction / ejection pipe diameter	mm	160		
Max channel length (suction + expulsion)	m	10		
Sound power level (LwA)	dBA	60		
Unit size	Height mm	1,845		
	Width mm	660		
	Depth mm	660		
Packing size	Height mm	2,050		
	Width mm	770		
	Depth mm	770		

(1) values measured by heating the water from 10 °C to 54 °C with air temperature sucked at 15 °C and relative humidity of 71%
(2) value obtained on the entire type L withdrawal cycle, at the reference temperature of 54 °C, according to the provisions of EN16147
(3) outside the temperature range of the heat pump the water heating is ensured by the electric resistance

INSTALLATION EXAMPLES



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ANL 021-202

Air-water chiller

Cooling capacity 5,7 ÷ 43,3 kW

- Standard version
- Version with Integrated hydronic kit system side



DESCRIPTION

Chillers for external installation for chilled water production with scroll compressors, axial fans, external copper coils with aluminum fins from size 020 to 090, microchannel from size 102 to 202.

The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

N With increased pump

P With pump

Q With storage tank and increased pump

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Double mechanical thermostat

On the configurator it is also possible to select the option "W" double mechanical thermostatic valve for low temperatures.

Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ The option is only available for sizes from 050 to 090 in the °-A-Q versions and from size 102 to 202 in all versions.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

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

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

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RA: Anti-freeze electric heater for the buffer tank.

KR: Anti-freeze electric heater for the plate heat exchanger.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	021	026	031	041	050	070	080	090	102	152	202
MODU-485BL	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
MULTICONTROL	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
PR3	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
SPLW (1)	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
VMF-CRP	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	050	070	080	090	102	152	202
°A,P	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52
N	-	-	-	-	-	-	-	-	DCPX52	DCPX52	DCPX52
Q	-	-	-	-	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52

The accessory cannot be fitted on the configurations indicated with -

VT: Antivibration

Ver	021	026	031	041	050	070	080	090	102	152	202
°P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	021	026	031	041	050	070	080	090	102	152	202
Power supply: °											
°A,P,Q	-	-	-	-	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES x 2 (1)	DRES x 2 (1)	DRES x 2 (1)
N	-	-	-	-	-	-	-	-	DRES x 2 (1)	DRES x 2 (1)	DRES x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the plate heat exchanger

Ver	021	026	031	041	050	070	080	090	102	152	202
°P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A,Q	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N	-	-	-	-	-	-	-	-	KR100	KR100	KR100

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

RA: electric heater for the buffer tank

Ver	021	026	031	041	050	070	080	090	102	152	202
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size 021, 026, 031, 041, 050, 070, 080, 090, 102, 152, 202
7	Model
°	Cooling only
8	Version
°	Standard
A	With storage tank and pump
N	With increased pump (1)
P	With pump
Q	With storage tank and increased pump (2)
9	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
10	Coils
°	Copper-aluminium (4)
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
11	Operating yield
°	Standard mechanic thermostatic valve (5)
W	Double mechanical thermostat for low temperature (6)
Y	Low temperature mechanic thermostatic valve (7)
Z	Low temperatures mechanic thermostatic valve (8)
12	Evaporator
°	Standard
13	Power supply
°	400V 3N ~ 50Hz (9)
M	230V ~ 50Hz (10)

(1) Only for ANL 102 ÷ 202 sizes

(2) Only for ANL 050 ÷ 202 sizes

(3) If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. The desuperheater is only available in sizes from 050 to 090 in the version with storage tank "A", and from size 102 to 202 in all versions.

(4) Sizes from 102 to 202 have a micro-channel coil

(5) Water produced up to +4 °C

(6) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 050 to 090 in the ° A-Q versions and from 102 to 202 in all versions

(7) Water produced from 0 °C up to -10 °C

(8) Water produced from +4 °C up to +0 °C

(9) For all sizes

(10) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS

ANL - ° (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,4	16,4	20,4	22,2	26,5	32,9	42,8
Input power	kW	1,9	2,0	2,5	3,3	4,1	4,9	6,4	6,8	8,0	10,2	13,5
Cooling total input current	A	4,0	4,0	5,0	6,0	9,0	10,0	12,0	13,0	16,0	19,0	25,0
EER	W/W	3,03	3,04	2,99	2,90	3,26	3,33	3,18	3,28	3,32	3,21	3,18
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Pressure drop system side	kPa	21	21	22	24	30	30	36	50	58	61	68

Power supply: M

Cooling performance 12 °C / 7 °C (1)

Cooling capacity	kW	5,7	6,2	7,5	9,6	-	-	-	-	-	-	-
Input power	kW	1,9	2,0	2,5	3,3	-	-	-	-	-	-	-
Cooling total input current	A	6,0	7,0	8,0	11,0	-	-	-	-	-	-	-
EER	W/W	3,03	3,04	2,99	2,90	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Pressure drop system side	kPa	21	21	22	24	-	-	-	-	-	-	-

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - P (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	5,0	5,0	7,0	10,0	11,0	13,0	14,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	73	73	71	65	76	72	57	52	84	115	91
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	8,0	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - N (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	-	-	-	-	26,8	33,3	43,3
Input power	kW	-	-	-	-	-	-	-	-	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	-	-	-	-	18,0	21,0	27,0
EER	W/W	-	-	-	-	-	-	-	-	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	-	-	-	-	4570	5669	7387
Useful head system side	kPa	-	-	-	-	-	-	-	-	140	185	159

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - A (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	5,0	5,0	7,0	10,0	11,0	13,0	14,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	73	73	71	65	76	72	57	52	84	115	91
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	8,0	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - Q (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,6	16,7	20,7	22,5	26,8	33,3	43,3
Input power	kW	-	-	-	-	4,2	5,0	6,5	6,8	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	10,0	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,24	3,33	3,19	3,31	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	-	-	-	-	160	159	144	140	140	185	159

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		021	026	031	041	050	070	080	090	102	152	202
SEER - 12/7 (EN14825:2018) with standard fans (1)												
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	W/W	4,18	4,20	4,17	4,10	4,16	4,34	4,19	4,31	4,11	4,10
	N	W/W	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	W/W	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	%	164,0%	164,8%	163,6%	161,0%	163,4%	170,7%	164,6%	169,4%	161,3%	161,1%
	N	%	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	%	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)												
SEER	°	W/W	4,34	4,35	4,31	4,21	4,55	4,68	4,49	4,61	4,83	4,73
	A,P	W/W	4,49	4,51	4,48	4,47	4,55	4,64	4,57	4,66	4,49	4,25
	N	W/W	-	-	-	-	-	-	-	-	4,15	4,18
	Q	W/W	-	-	-	-	4,18	4,44	4,35	4,49	4,15	4,18
Seasonal efficiency	°	%	170,4%	170,9%	169,2%	165,2%	179,1%	184,3%	176,6%	181,5%	190,3%	186,0%
	A,P	%	176,7%	177,5%	176,0%	175,6%	179,0%	182,4%	179,8%	183,5%	176,6%	167,0%
	N	%	-	-	-	-	-	-	-	-	163,1%	164,2%
	Q	%	-	-	-	-	164,3%	174,5%	171,1%	176,7%	163,1%	164,2%
SEPR - (EN14825: 2018) High temperature with standard fans (3)												
SEPR	°	W/W	5,92	5,92	5,85	5,69	6,36	6,50	6,21	6,43	6,79	6,58
	A,P	W/W	6,56	6,57	6,45	6,21	6,74	6,90	6,55	6,78	6,68	6,17
	N	W/W	-	-	-	-	-	-	-	-	5,91	6,09
	Q	W/W	-	-	-	-	6,03	6,28	6,08	6,30	5,91	6,09

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Electric data												
Maximum current (FLA)	°	A	5,0	6,0	6,0	9,0	11,0	14,0	16,0	17,0	22,0	32,0
	A,P	A	6,0	7,0	7,0	10,0	13,0	15,0	18,0	19,0	23,0	34,0
	N	A	-	-	-	-	-	-	-	-	24,0	34,0
	Q	A	-	-	-	-	12,0	14,0	17,0	18,0	24,0	34,0
Peak current (LRA)	°	A	28,0	38,0	39,0	44,0	65,0	75,0	102,0	96,0	76,0	117,0
	A,P	A	29,0	39,0	40,0	45,0	67,0	77,0	104,0	98,0	77,0	119,0
	N	A	-	-	-	-	-	-	-	-	78,0	119,0
	Q	A	-	-	-	-	66,0	76,0	103,0	97,0	78,0	119,0
Power supply: M												
Electric data												
Maximum current (FLA)	°	A	13,0	16,0	18,0	22,0	-	-	-	-	-	-
	A,P	A	14,0	17,0	19,0	23,0	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	64,0	68,0	69,0	100,0	-	-	-	-	-	-
	A,P	A	62,0	69,0	70,0	101,0	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-

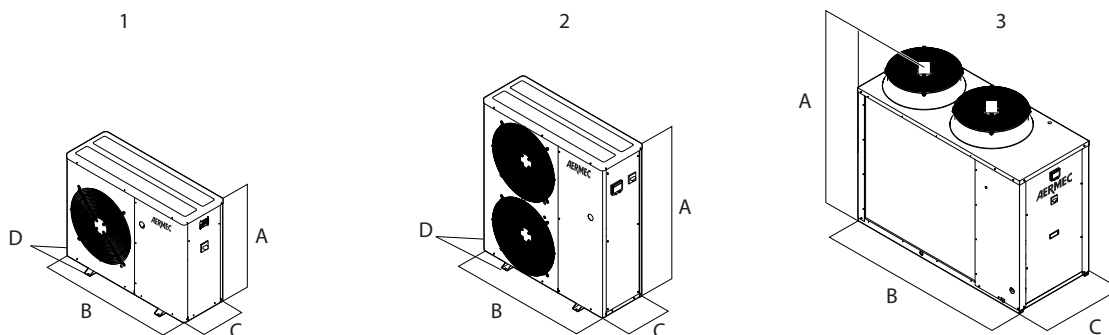
GENERAL TECHNICAL DATA

		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202	
Compressor													
Type	type							Scroll					
Compressor regulation	Type							On-Off					
Number	no.	1	1	1	1	1	1	1	1	2	2	2	
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1	
Refrigerant	type							R410A					
Refrigerant charge	kg	1,2	1,2	1,2	1,3	2,8	2,8	3,0	3,9	5,9	5,9	5,9	
System side heat exchanger													
Type	type							Brazed plate					
Number	no.	1	1	1	1	1	1	1	1	1	1	1	
System side hydraulic connections													
Sizes (in/out)	Ø							1"1/4					
Fan													
Type	type							Axial					
Fan motor	type							Asynchronous with phase cut					
Number	no.	1	1	1	1	1	1	1	1	2	2	2	
Air flow rate	m³/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500	
Sound data calculated in cooling mode (1)													
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0	

		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202
Sound pressure level (1 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



- 1 ANL 021-041
- 2 ANL 050-070
- 3 ANL 102-202

Size			021	026	031	041	050	070	080	090	102	152	202
Dimensions and weights													
A	°P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	147	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	151	151	151	187	338	364	400

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANL H 021-203

Reversible air/water heat pump

Cooling capacity 5,7 ÷ 49,1 kW
Heating capacity 6,2 ÷ 43,3 kW



- It is possible to produce hot domestic water
- Compact dimensions
- Quick & easy installation



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

Equipped with scroll compressors, axial fans, external coil with aluminium fins, plate heat exchanger on the side.

The base structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

N With increased pump

P With pump

Q With storage tank and increased pump

FEATURES

Operating field

Full load up to 46 °C ambient air temperature with the possibility to produce chilled water down to -10° C in cooling mode (for more details refer to the technical documentation).

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Inverter fans

Inverter fans from size 031 to 091 for all sizes.

■ The DCPX accessory is not required for these sizes.

Double mechanical thermostat

On the configurator it is also possible to select the option "W" double mechanical thermostatic valve for low temperatures.

Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ The option is available only for sizes starting from 051 to 091 in the °A-Q versions and from size 103 to 203 in all versions.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

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

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

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

VT: Anti-vibration supports.

BDX: Condensate drip.

FACTORY FITTED ACCESSORIES**DRE:** Electronic device for peak current reduction.**RA:** Anti-freeze electric heater for the buffer tank.**KR:** Anti-freeze electric heater for the plate heat exchanger.**KRB:** Electric anti-freeze resistance kit for base.**COMPATIBILITY WITH VMF SYSTEM****For more information about VMF system, refer to the dedicated documentation.****ACCESSORIES COMPATIBILITY**

Model	Ver	021	026	031	041	051	071	081	091	103	153	203
MODU-485BL	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
MULTICONTROL	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
PR3	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
SDHW (1)	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
SPLW (2)	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*
VMF-CRP	°A,P	*	*	*	*	*	*	*	*	*	*	*
	N									*	*	*
	Q					*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	051	071	081	091	103	153	203
°A,P	DCPX51	DCPX51	-	-	-	-	-	-	DCPX53	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	021	026	031	041	051	071	081	091	103	153	203
°P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

The accessory cannot be fitted on the configurations indicated with -

Condensate drip

Ver	021	026	031	041	051	071	081	091	103	153	203
°P	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	-	-	-
A	BDX5	BDX5	BDX5	BDX5	BDX6	BDX6	BDX6	BDX6	-	-	-
Q	-	-	-	-	BDX6	BDX6	BDX6	BDX6	-	-	-

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	021	026	031	041	051	071	081	091	103	153	203
°A,P,Q	-	-	-	-	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)
N	-	-	-	-	-	-	-	-	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the heat exchanger

Ver	021	026	031	041	051	071	081	091	103	153	203
°P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N,Q	-	-	-	-	-	-	-	-	KR100	KR100	KR100

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

RA: Anti-freeze electric heater for the buffer tank

Ver	021	026	031	041	051	071	081	091	103	153	203
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

KRB: Electric heater for the base

Ver	021	026	031	041	051	071	081	091	103	153	203
°A,N,P,Q	-	-	-	-	-	-	-	-	KRB3 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size 021, 026, 031, 041, 051, 071, 081, 091, 103, 153, 203
7	Model
H	Heat pump
8	Version
°	Standard
A	With storage tank and pump
N	With increased pump (1)
P	With pump
Q	With storage tank and increased pump (2)
9	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
10	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
11	Operating yield
°	Standard mechanic thermostatic valve
W	Double mechanic thermostat for low temperature (4)
12	Evaporator
°	Standard
13	Power supply
°	400V 3N ~ 50Hz (5)
M	230V ~ 50Hz (6)

(1) Only for ANL 103 ÷ 203 sizes

(2) Only for ANL 051 ÷ 203 sizes

(3) The desuperheater must be intercepted during heating mode. If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, during cold operation, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. It is only available in sizes from 051 to 091 in the version with storage tank "A", and from size 103 to 203 in all versions.

(4) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 051 to 091 in the °A-Q versions and from 103 to 203 in all versions

(5) Only for ANL 021 ÷ 203 sizes

(6) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C/ 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,3	16,3	20,0	21,5	25,5	31,7	40,2
Input power	kW	1,9	2,0	2,5	3,3	4,4	5,9	6,7	6,7	9,2	11,0	14,1
Cooling total input current - 400V	A	3,7	4,2	4,7	6,2	8,7	9,7	12,0	13,0	16,0	19,0	25,0
Cooling total input current - 230V	A	6,4	7,3	8,1	11,0	-	-	-	-	-	-	-
EER	W/W	3,02	3,02	2,98	2,90	3,06	2,77	3,01	3,21	2,79	2,87	2,85
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Pressure drop system side	kPa	30	31	32	30	34	35	44	60	55	57	62
Heating performance 40 °C/ 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,4	9,8	13,3	17,4	21,0	22,1	26,2	35,5	42,0
Input power	kW	1,9	2,2	2,7	3,1	4,1	5,2	6,0	6,4	8,8	11,1	12,7
Heating total input current - 400V	A	3,8	4,4	5,4	6,8	9,5	10,0	13,0	14,0	17,0	19,0	25,0
Heating total input current - 230V	A	6,6	7,6	9,3	12,0	-	-	-	-	-	-	-
COP	W/W	3,21	3,27	3,17	3,22	3,21	3,32	3,49	3,47	2,99	3,21	3,32
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Pressure drop system side	kPa	36	40	41	37	38	39	53	72	70	70	78

(1) Data 14511:2018; System side water heat exchanger 12 °C/ 7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C/ 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,4	16,4	20,2	21,7	25,8	32,1	40,6
Input power	kW	1,8	2,0	2,5	3,2	4,3	5,8	6,6	6,6	9,2	11,1	14,2
Cooling total input current - 400V	A	4,0	4,5	5,0	6,6	9,3	10,0	13,0	13,0	17,0	21,0	27,0
Cooling total input current - 230V	A	6,9	7,9	8,7	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	3,11	2,82	3,06	3,29	2,79	2,89	2,87
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Useful head system side	kPa	73	73	71	65	76	72	57	52	88	125	111
Heating performance 40 °C/ 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	13,1	17,2	20,9	21,9	25,9	35,0	41,5
Input power	kW	1,9	2,1	2,6	3,0	4,1	5,2	5,9	6,3	8,9	11,2	12,7
Heating total input current - 400V	A	4,1	4,7	5,8	7,2	10,0	11,0	14,0	14,0	18,0	21,0	27,0
Heating total input current - 230V	A	7,2	8,2	9,9	12,0	-	-	-	-	-	-	-
COP	W/W	3,23	3,30	3,21	3,25	3,20	3,33	3,51	3,51	2,92	3,14	3,26
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Useful head system side	kPa	68	67	65	58	72	65	46	40	64	94	68

(1) Data 14511:2018; System side water heat exchanger 12 °C/ 7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C/ 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,5	16,5	20,3	21,8	25,8	32,1	40,6
Input power	kW	-	-	-	-	4,4	5,9	6,7	6,7	9,6	11,4	14,5
Cooling total input current - 400V	A	-	-	-	-	9,7	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,05	2,78	3,03	3,25	2,68	2,82	2,81
Water flow rate system side	l/h	-	-	-	-	2294	2807	3452	3713	4398	5467	6929
Useful head system side - ver. "Q"	kPa	-	-	-	-	160	159	144	140	147	192	170
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	147	192	170
Heating performance 40 °C/ 45 °C (2)												
Heating capacity	kW	-	-	-	-	13,0	17,1	20,8	21,8	25,9	35,0	41,5
Input power	kW	-	-	-	-	4,2	5,3	6,1	6,4	9,3	11,4	13,0
Heating total input current - 400V	A	-	-	-	-	10,0	11,0	14,0	15,0	19,0	21,0	28,0
COP	W/W	-	-	-	-	3,10	3,24	3,42	3,43	2,78	3,07	3,19
Water flow rate system side	l/h	-	-	-	-	2294	3007	3638	3827	4529	6137	7265
Useful head system side - ver. "Q"	kPa	-	-	-	-	154	151	131	126	107	169	141
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	107	169	141

(1) Data 14511:2018; System side water heat exchanger 12 °C/ 7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C/ 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,0	11,6	16,1	19,7	24,2	26,0	30,8	38,3	48,5
Input power	kW	2,0	2,1	2,6	3,4	4,5	6,1	7,0	7,1	9,6	11,6	14,8
Cooling total input current - 400V	A	3,8	4,3	4,9	6,4	9,0	10,0	13,0	13,0	16,0	19,0	26,0
Cooling total input current - 230V	A	6,6	7,6	8,4	11,0	-	-	-	-	-	-	-
EER	W/W	3,50	3,50	3,45	3,36	3,54	3,21	3,47	3,68	3,21	3,31	3,27
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Pressure drop system side	kPa	44	46	47	44	50	52	65	88	81	84	92
Heating performance 30 °C/ 35 °C (2)												
Heating capacity	kW	6,5	7,3	8,8	10,3	13,8	18,1	21,9	23,1	27,3	37,0	43,9
Input power	kW	1,7	1,9	2,3	2,7	3,5	4,7	5,4	5,7	7,8	9,9	11,3
Heating total input current - 400V	A	3,3	3,8	4,6	6,0	8,1	9,1	11,0	12,0	15,0	17,0	22,0
Heating total input current - 230V	A	5,6	6,5	8,0	10,0	-	-	-	-	-	-	-
COP	W/W	3,88	3,96	3,85	3,77	3,90	3,89	4,08	4,05	3,49	3,74	3,87
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Pressure drop system side	kPa	39	43	44	40	41	42	57	78	76	76	84

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C/ 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	16,2	19,8	24,4	26,2	31,1	38,8	49,1
Input power	kW	1,9	2,1	2,6	3,4	4,5	6,0	6,9	6,9	9,7	11,6	14,8
Cooling total input current - 400V	A	4,2	4,7	5,2	6,8	9,7	11,0	13,0	14,0	17,0	21,0	28,0
Cooling total input current - 230V	A	7,2	8,2	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,63	3,63	3,58	3,46	3,62	3,28	3,55	3,81	3,21	3,36	3,32
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Useful head system side	kPa	63	63	60	51	60	53	31	24	47	63	41
Heating performance 30 °C/ 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	13,7	18,0	21,8	22,9	27,1	36,6	43,3
Input power	kW	1,6	1,8	2,2	2,7	3,5	4,6	5,3	5,6	8,0	10,0	11,4
Heating total input current - 400V	A	3,6	4,1	5,0	6,4	8,8	9,8	12,0	13,0	16,0	19,0	24,0
Heating total input current - 230V	A	6,2	7,1	8,6	11,0	-	-	-	-	-	-	-
COP	W/W	3,93	4,02	3,91	3,81	3,90	3,91	4,11	4,11	3,40	3,67	3,81
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Useful head system side	kPa	67	64	62	55	69	61	41	34	55	81	53

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C/ 18 °C (1)												
Cooling capacity	kW	-	-	-	-	16,3	19,9	24,5	26,3	31,1	38,7	49,0
Input power	kW	-	-	-	-	4,6	6,2	7,0	7,0	10,2	11,9	15,2
Cooling total input current - 400V	A	-	-	-	-	10,0	11,0	14,0	14,0	18,0	22,0	28,0
EER	W/W	-	-	-	-	3,54	3,23	3,51	3,76	3,07	3,25	3,23
Water flow rate system side	l/h	-	-	-	-	2784	3407	4189	4506	5338	6636	8410
Useful head system side - ver. "Q"	kPa	-	-	-	-	136	135	114	108	79	146	114
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	79	146	114
Heating performance 30 °C/ 35 °C (2)												
Heating capacity	kW	-	-	-	-	13,6	17,9	21,7	22,8	27,0	36,6	43,4
Input power	kW	-	-	-	-	3,6	4,7	5,4	5,7	8,4	10,2	11,7
Heating total input current - 400V	A	-	-	-	-	9,1	10,0	13,0	13,0	17,0	19,0	25,0
COP	W/W	-	-	-	-	3,75	3,79	4,00	4,01	3,22	3,57	3,71
Water flow rate system side	l/h	-	-	-	-	2385	3126	3782	3979	4709	6381	7553
Useful head system side - ver. "Q"	kPa	-	-	-	-	149	146	125	119	92	159	129
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	92	159	129

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Cooling capacity with low leaving water temp (UE n° 2016/2281)													
SEER	°	W/W	3,13	3,19	3,28	3,34	3,76	3,49	3,80	3,91	3,58	3,74	3,73
	A,P	W/W	3,29	3,36	3,45	3,50	3,89	3,69	3,99	4,16	3,55	3,53	3,55
	N	W/W	-	-	-	-	-	-	-	-	3,14	3,48	3,53
	Q	W/W	-	-	-	-	3,30	3,24	3,53	3,75	3,14	3,48	3,53
ηsc	°	%	122,00	125,00	128,00	131,00	147,00	137,00	149,00	153,00	140,00	146,00	146,00
	A,P	%	129,00	131,00	135,00	137,00	153,00	145,00	157,00	163,00	139,00	138,00	139,00
	N	%	-	-	-	-	-	-	-	-	123,00	136,00	138,00
	Q	%	-	-	-	-	129,00	127,00	138,00	147,00	123,00	136,00	138,00
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 70 kW (1)													
Pdesignh	°	kW	6,00	6,00	8,00	9,00	13,00	16,00	20,00	21,00	25,00	33,00	40,00
	A,P	kW	6,00	6,00	8,00	9,00	12,00	16,00	20,00	21,00	24,00	33,00	39,00
	N	kW	-	-	-	-	-	-	-	-	24,00	33,00	39,00
	Q	kW	-	-	-	-	12,00	16,00	19,00	21,00	24,00	33,00	39,00
SCOP	°		3,30	3,30	3,33	3,28	3,43	3,43	3,58	3,50	3,53	3,58	3,70
	A,P		3,40	3,40	3,40	3,35	3,48	3,48	3,60	3,53	3,45	3,45	3,60
	N		-	-	-	-	-	-	-	-	3,23	3,35	3,53
	Q		-	-	-	-	3,23	3,28	3,43	3,40	3,23	3,35	3,53
ηsh	°	%	129,00	129,00	130,00	128,00	134,00	134,00	140,00	137,00	138,00	140,00	145,00
	A,P	%	133,00	133,00	133,00	131,00	136,00	136,00	141,00	138,00	135,00	135,00	141,00
	N	%	-	-	-	-	-	-	-	-	126,00	131,00	138,00
	Q	%	-	-	-	-	126,00	128,00	134,00	133,00	126,00	131,00	138,00
Efficiency energy class	°		A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	A,P		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	N		-	-	-	-	-	-	-	-	A+	A+	A+
	Q		-	-	-	-	A+	A+	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Electric data													
Maximum current (FLA)	°	A	7,0	7,0	7,7	9,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	A,P	A	7,7	7,7	8,4	10,4	13,3	15,5	18,3	19,3	23,9	29,1	35,1
	N	A	-	-	-	-	-	-	-	-	26,2	30,2	36,2
	Q	A	-	-	-	-	14,0	13,5	19,0	20,0	26,2	30,2	36,2
Peak current (LRA)	°	A	27,5	33,5	36,7	49,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
	A,P	A	28,2	34,2	37,4	50,4	67,3	75,3	104,3	98,3	77,9	90,1	120,1
	N	A	-	-	-	-	-	-	-	-	80,2	91,2	121,2
	Q	A	-	-	-	-	68,0	75,3	105,0	99,0	80,2	91,2	121,2
Power supply: M													
Electric data													
Maximum current (FLA)	°	A	17,5	17,5	20,7	24,7	-	-	-	-	-	-	-
	A,P	A	18,5	18,5	20,5	25,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
	A,P	A	60,5	63,5	84,5	99,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-

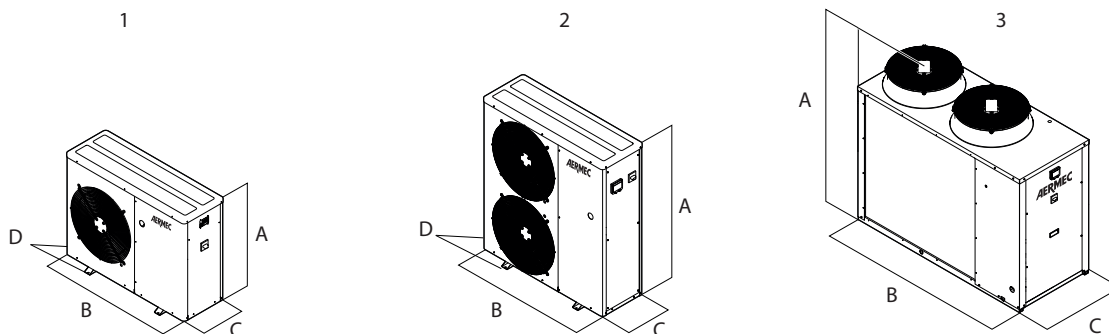
GENERAL TECHNICAL DATA

Size		021	026	031	041	051	071	081	091	103	153	203
Compressor												
Type	type	Scroll										
Compressor regulation	Type	On-Off										
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type	R410A										
Refrigerant charge	kg	1,8	1,8	2,0	2,0	2,9	2,9	3,1	3,9	4,6	5,4	5,7
System side heat exchanger												
Type	type	Brazed plate										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	Type	Gas - F										
Sizes (in/out)	Ø	1" 1/4										
Fan												
Type	type	Axial										
Fan motor	type	Asynchronous	Asynchronous	Asynchronous	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous	Asynchronous
Number	no.	1	1	1	1	1	2	2	2	2	2	2

Size		021	026	031	041	051	071	081	091	103	153	203
Air flow rate	m ³ /h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data calculated in cooling mode (1)												
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0
Sound pressure level (10 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



- 1 ANL 021 - 041
- 2 ANL 051 - 091
- 3 ANL 103 - 203

Size			021	026	031	041	051	071	081	091	103	153	203
Dimensions and weights													
A	°P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	183	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	147	147	183	183	338	364	400

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ANL 290-650

Air-water chiller

Cooling capacity 54,7 ÷ 133,5 kW

- **Standard version**
- **Low noise version**
- **Option integrated hydronic kit user side**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in commercial complexes or industrial applications.

VERSIONS

° Standard
L Silenced

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Case

The base the structure and the panels are made of steel treated with polyester paintRAL 9002.

CONTROL

MODUCONTROL control type.

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

SPWL: 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: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	290	300	340	400	580	620	650
AERNET	°					*	*	*
	L	*	*	*	*	*	*	*
AERSET	°					*	*	*
	L	*	*	*	*	*	*	*
MODU-485BL	°					*	*	*
	L	*	*	*	*	*	*	*
MULTICONTROL	°					*	*	*
	L	*	*	*	*	*	*	*
PR3	°					*	*	*
	L	*	*	*	*	*	*	*
SPLW (1)	°					*	*	*
	L	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	290	300	340	400	580	620	650
Fans: °							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	-	-	-	-	As standard	As standard	As standard
Fans: M							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	DCPX62	DCPX62	DCPX62	DCPX63	DCPX83	DCPX83	DCPX83

The accessory cannot be fitted on the configurations indicated with -
In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	290	300	340	400	580	620	650
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

VT: Antivibration

Ver	290	300	340	400	580	620	650
Integrated hydronic kit: 00							
°	-	-	-	-	VT11	VT11	VT11
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11
Integrated hydronic kit: P1, P2, P3, P4							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT17	VT11	VT11	VT11

The accessory cannot be fitted on the configurations indicated with -

RIF: Power factor correction

Ver	290	300	340	400	580	620	650
°	-	-	-	-	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size 290, 300, 340, 400, 580, 620, 650
7	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
Y	Low temperature mechanic thermostatic valve (3)
8	Model
°	Cooling only
C	Motocondensing unit
9	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
10	Version
°	Standard (5)
L	Silenced
11	Coils
°	Alluminium
R	Copper-copper
S	Tinned copper
V	Copper-painted aluminium
12	Fans
°	Standard (6)
J	Inverter (7)
M	Oversized (8)
13	Power supply
°	400V 3N ~ 50Hz
14	Soft-start
°	Without Soft-Start
S	With Soft-Start
15,16	Integrated hydronic kit
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C.

(2) Water produced up to +4 °C. For different temperature please contact the factory.

(3) Water produced up to -6 °C

(4) With this option the "X" and "Y" valves are not compatible.

(5) The size up 290÷400 are only available in the silenced versions "L".

(6) As standard in sizes from 580÷650.

(7) Standard for size 290÷400, without useful static pressure. Option for size 580÷650 with useful static pressure.

(8) Option available for all size.

PERFORMANCE SPECIFICATIONS

ANL - °

Size		290	300	340	400	580	620	650
Cooling performance 12 °C/7 °C (1)								
Cooling capacity	kW	-	-	-	-	111,4	124,5	133,5
Input power	kW	-	-	-	-	40,4	47,2	54,5
Cooling total input current	A	-	-	-	-	70,0	82,0	94,0
EER	W/W	-	-	-	-	2,76	2,64	2,45
Water flow rate system side	l/h	-	-	-	-	19191	21442	22988
Pressure drop system side	kPa	-	-	-	-	81	61	70

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ANL - L

Size		290	300	340	400	580	620	650
Cooling performance 12 °C/7 °C (1)								
Cooling capacity	kW	54,7	60,0	66,0	76,3	104,5	114,6	121,4
Input power	kW	20,9	22,9	25,1	29,9	43,7	51,3	59,4
Cooling total input current	A	38,0	41,0	46,0	55,0	74,0	87,0	101,0
EER	W/W	2,62	2,61	2,63	2,56	2,39	2,24	2,04
Water flow rate system side	l/h	9415	10326	11374	13144	18006	19758	20909
Pressure drop system side	kPa	28	33	40	41	71	52	58

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			290	300	340	400	580	620	650
SEER - 12/7 (EN14825:2018) with standard fans (1)									
SEER	°	L	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°	L	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)									
SEER	°		W/W	-	-	-	-	4,79	4,69
		L	W/W	4,54	4,54	4,54	4,69	4,66	4,46
	°		%	-	-	-	-	188,5%	184,7%
Seasonal efficiency		L	%	178,7%	178,4%	178,4%	184,7%	183,4%	175,4%
									162,0%
SEPR - (EN14825: 2018) High temperature with standard fans (3)									
SEPR	°		W/W	-	-	-	-	5,98	5,77
		L	W/W	5,37	5,36	5,37	5,55	5,73	5,41
									5,09

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

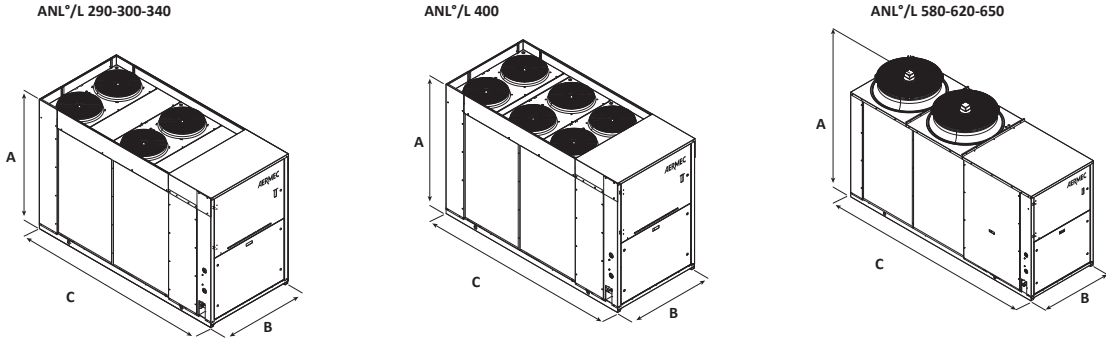
Size			290	300	340	400	580	620	650
Power supply: °									
Electric data									
Maximum current (FLA)	°	A	-	-	-	-	85,0	99,0	112,0
		L	A	49,0	53,0	58,0	69,0	85,0	99,0
	°		A	-	-	-	-	262,0	308,0
Peak current (LRA)		L	A	130,0	131,0	162,0	183,0	262,0	308,0
									320,0

GENERAL TECHNICAL DATA

Size			290	300	340	400	580	620	650
Compressor									
Type	°	type	-	-	-	-	Scroll	Scroll	Scroll
		L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	-	2	2	2
		L	no.	2	2	2	2	2	2
Circuits	°	no.	-	-	-	-	1	1	1
		L	no.	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	-	R410A	R410A	R410A
		L	type	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°	L	GWP	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq
Refrigerant charge	°	kg	-	-	-	-	19,1	18,5	19,0
		L	kg	9,0	10,7	10,7	10,4	19,1	18,5
System side heat exchanger									
Type	°	type	-	-	-	-	Brazed plate	Brazed plate	Brazed plate
		L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	-	1	1	1
		L	no.	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	-	Grooved joints	Grooved joints	Grooved joints
		L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	-	2 ½"	2 ½"	2 ½"
		L	Ø	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	-	axials	axials	axials
		L	type	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	-	On-Off	On-Off	On-Off
		L	type	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	-	2	2	2
		L	no.	4	4	4	6	2	2
Air flow rate	°	m ³ /h	-	-	-	-	35900	35900	35900
		L	m ³ /h	15600	15600	15600	20700	35900	35900
Sound data calculated in cooling mode (1)									
Sound power level	°	dB(A)	-	-	-	-	82,4	82,8	83,2
		L	dB(A)	73,4	73,5	74,2	75,1	77,2	77,6
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	50,5	50,9	51,3
		L	dB(A)	41,7	41,8	42,5	43,4	45,3	45,7

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			290	300	340	400	580	620	650
Dimensions and weights									
A	°	mm	-	-	-	-	1875	1875	1875
	L	mm	1605	1605	1605	1605	1875	1875	1875
B	°	mm	-	-	-	-	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3200	3200	3200
	L	mm	2450	2450	2450	2450	3200	3200	3200
Empty weight	°	kg	-	-	-	-	854	925	970
	L	kg	628	636	648	666	854	925	970

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ANL H 292-652

Reversible air/water heat pump

Cooling capacity 52,9 ÷ 128,8 kW
Heating capacity 60,8 ÷ 141,4 kW

- Standard version
- Low noise version
- Option integrated hydronic kit user side



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- L Silenced

FEATURES

Operating field

Operation at full load up to 43 °C external air temperature. Unit can produce chilled water (up to -10°C).

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It's available in various configurations, with storage tank or pumps.

Inverter fans

Inverter fans from size 292 to size 432 versions L.

■ *The DCPX accessory is not required for these sizes.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

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: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	292	302	342	402	582	622	652
AERNET	°				*	*	*	*
	L	*	*	*	*	*	*	*
AERSET	°				*	*	*	*
	L	*	*	*	*	*	*	*
MODU-485BL	°				*	*	*	*
	L	*	*	*	*	*	*	*
MULTICONTROL	°				*	*	*	*
	L	*	*	*	*	*	*	*
PR3	°				*	*	*	*
	L	*	*	*	*	*	*	*
SPLW (1)	°				*	*	*	*
	L	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	292	302	342	402	582	622	652
Fans: °							
°	-	-	-	DCPX83	DCPX83	DCPX83	DCPX83
L	-	-	-	As standard	As standard	As standard	As standard
Fans: M							
L	DCPX62	DCPX62	DCPX63	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	292	302	342	402	582	622	652
°	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

VT: Antivibration

Ver	292	302	342	402	582	622	652
Integrated hydronic kit: 00							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT17	VT17	VT17	VT11	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04, P1, P2, P3, P4							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT13	VT13	VT13	VT11	VT11	VT11	VT11

The accessory cannot be fitted on the configurations indicated with -

RIF: Power factor correction

Ver	292	302	342	402	582	622	652
°	-	-	-	RIF42	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	ANL
4,5,6	Size 292, 302, 342, 402, 582, 622, 652
7	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
8	Model
H	Heat pump
9	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
10	Version
°	Standard
L	Silenced
11	Coils
°	Alluminium
R	Copper-copper
S	Tinned copper
V	Copper-painted aluminium
12	Fans
°	Standard (4)
J	Inverter (5)
M	Oversized (6)
13	Power supply
°	400V 3N ~ 50Hz
14	Soft-start
°	Without Soft-Start
S	With Soft-Start
15,16	Integrated hydronic kit
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C.

(2) Water produced up to +4 °C. For different temperature please contact the factory.

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35 °C must always be guaranteed on the heat exchanger inlet.

(4) As standard in sizes from 402÷652.

(5) Standard for size 292÷342, without useful static pressure. Option for size 402÷652 with useful static pressure.

(6) Option available only for size 292÷342.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H°)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C/ 7 °C (1)								
Cooling capacity	kW	-	-	-	81,0	102,7	119,8	126,6
Input power	kW	-	-	-	29,2	42,2	44,4	49,7
Cooling total input current	A	-	-	-	52,0	68,0	70,0	77,0
EER	W/W	-	-	-	2,78	2,43	2,70	2,55
Water flow rate system side	l/h	-	-	-	13951	17714	20635	21803
Pressure drop system side	kPa	-	-	-	29	55	53	61
Heating performance 40 °C/ 45 °C (2)								
Heating capacity	kW	-	-	-	88,3	118,8	131,0	138,6
Input power	kW	-	-	-	28,7	39,4	43,3	47,4
Heating total input current	A	-	-	-	51,0	63,0	68,0	74,0
COP	W/W	-	-	-	3,07	3,02	3,03	2,92
Water flow rate system side	l/h	-	-	-	15312	20595	22716	24036
Pressure drop system side	kPa	-	-	-	33	55	61	70

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	52,0	55,7	64,5	76,6	98,0	114,0	119,0
Input power	kW	21,0	24,0	24,6	30,7	45,5	47,6	53,1
Cooling total input current	A	37,0	41,0	45,0	54,0	72,0	75,0	83,0
EER	W/W	2,48	2,32	2,62	2,49	2,15	2,39	2,24
Water flow rate system side	l/h	8951	9587	11099	13178	16889	19638	20497
Pressure drop system side	kPa	26	24	31	26	40	48	55
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	59,6	64,6	71,3	88,3	118,8	131,0	137,3
Input power	kW	19,0	20,7	22,6	28,7	39,8	43,3	47,4
Heating total input current	A	34,0	36,0	42,0	51,0	63,0	68,0	74,0
COP	W/W	3,13	3,12	3,15	3,07	2,98	3,03	2,90
Water flow rate system side	l/h	10341	11210	12357	15312	20595	22716	23810
Pressure drop system side	kPa	32	29	35	33	55	61	70

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C**ANL - (H°)**

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	-	-	-	109,8	139,5	162,5	171,7
Input power	kW	-	-	-	32,5	47,0	49,4	55,4
Cooling total input current	A	-	-	-	57,0	75,0	77,0	85,0
EER	W/W	-	-	-	3,38	2,97	3,29	3,10
Water flow rate system side	l/h	-	-	-	18998	24121	28099	29690
Pressure drop system side	kPa	-	-	-	54	102	98	113
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	-	-	-	91,7	123,4	136,1	144,0
Input power	kW	-	-	-	23,9	32,8	36,1	39,5
Heating total input current	A	-	-	-	42,0	52,0	56,0	61,0
COP	W/W	-	-	-	3,84	3,76	3,77	3,65
Water flow rate system side	l/h	-	-	-	15847	21315	23510	24877
Pressure drop system side	kPa	-	-	-	35	59	65	75

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	70,5	75,5	87,3	103,7	133,0	154,7	161,4
Input power	kW	23,3	26,6	27,4	34,1	50,6	52,9	59,0
Cooling total input current	A	41,0	45,0	50,0	59,0	79,0	83,0	91,0
EER	W/W	3,03	2,84	3,19	3,04	2,63	2,92	2,73
Water flow rate system side	l/h	12189	13055	15114	17945	22998	26742	27911
Pressure drop system side	kPa	48	45	57	48	74	89	102
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	62,0	67,1	74,0	91,7	123,4	136,1	142,6
Input power	kW	15,8	17,2	18,8	23,9	33,1	36,1	39,5
Heating total input current	A	28,0	30,0	35,0	42,0	52,0	56,0	61,0
COP	W/W	3,92	3,90	3,94	3,84	3,72	3,77	3,61
Water flow rate system side	l/h	10703	11602	12789	15847	21315	23510	24643
Pressure drop system side	kPa	34	31	37	35	59	65	75

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			292	302	342	402	582	622	652
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	°	W/W	-	-	-	4,02	3,71	4,08	3,90
	L	W/W	3,65	3,50	3,88	3,82	3,64	4,01	3,79
η _{sc}	°	%	-	-	-	157,90	145,50	160,10	152,90
	L	%	142,80	137,00	152,30	149,60	142,60	157,30	148,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 70 kW (1)									
Pdesignh	°	kW	-	-	-	76	103	113	119
	L	kW	51	56	61	76	103	113	119
SCOP	°		-	-	-	3,53	3,53	3,55	3,48
	L		3,58	3,60	3,60	3,53	3,53	3,55	3,48
η _{sh}	°	%	-	-	-	138,00	138,00	139,00	136,00
	L	%	140,00	141,00	141,00	138,00	138,00	139,00	136,00
Efficiency energy class	°		-	-	-	-	-	-	-
	L		A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

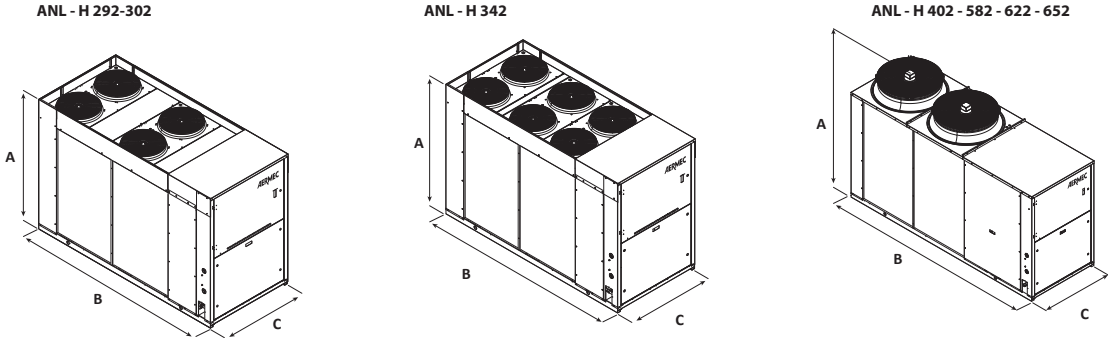
Size			292	302	342	402	582	622	652
Electric data									
Maximum current (FLA)	°	A	-	-	-	65,0	98,0	107,0	116,0
	L	A	44,0	47,0	54,0	65,0	98,0	107,0	116,0
Peak current (LRA)	°	A	-	-	-	181,0	264,0	264,0	273,0
	L	A	126,0	128,0	160,0	181,0	264,0	264,0	273,0

GENERAL TECHNICAL DATA

Size			292	302	342	402	582	622	652
Compressor									
Type	°	type	-	-	-	Scroll	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	2	2	2	2
	L	no.	2	2	2	2	2	2	2
Circuits	°	no.	-	-	-	1	1	1	1
	L	no.	1	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	R410A	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°	GWP	-	-	-	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq
	L	GWP	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq	2088kgCO ₂ eq
System side heat exchanger									
Type	°	type	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	1	1	1	1
	L	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	2 ½"	2 ½"	2 ½"	2 ½"
	L	Ø	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	axials	axials	axials	axials
	L	type	axials	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	On-Off	On-Off	On-Off	On-Off
	L	type	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	2	2	2	2
	L	no.	4	4	6	2	2	2	2
Air flow rate	°	m ³ /h	-	-	-	45800	45800	44600	44600
	L	m ³ /h	17600	17600	17200	32060	32060	31220	31220
Sound data calculated in cooling mode (1)									
Sound power level	°	dB(A)	-	-	-	89,0	89,0	89,0	89,0
	L	dB(A)	73,0	74,0	74,0	83,0	84,0	85,0	85,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	57,6	67,6	57,6	57,6
	L	dB(A)	41,7	42,4	42,6	51,5	52,1	52,7	53,4

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			292	302	342	402	582	622	652
Dimensions and weights									
A	°	mm	-	-	-	1875	1875	1875	1875
	L	mm	1605	1605	1605	1875	1875	1875	1875
B	°	mm	-	-	-	2950	3200	3200	3200
	L	mm	2450	2450	2450	2950	3200	3200	3200
C	°	mm	-	-	-	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
Empty weight	°	kg	-	-	-	808	902	1008	1053
	L	kg	655	660	684	808	902	1008	1053

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responsibility or liability for errors or omissions.

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NRK 0090-0150

Reversible air/water heat pump

Cooling capacity 18,4 ÷ 31,0 kW
Heating capacity 20,8 ÷ 34,4 kW



- Cooling / heating / high-temperature water production even for DHW production.
- Water produced up to +65 °C
- Heating operations with external temperatures down to -20 °C
- Optimised for heating mode



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential, commercial complexes or industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° High efficiency

FEATURES

Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

DCPX as standard

Phase-cut device that regulates the fan speed to ensure optimum unit operation in all conditions.

CONTROL

MODUCONTROL control type.

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

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

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

VT: Anti-vibration supports.

BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

■ Refer to the specific "SAF" datasheet for more information about correct system operation, and about the required or recommended accessories. Please consult the VMF system for the production of DHW with a thermal storage tank not supplied by Aermec.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	0090	0100	0150
AERNET	°	*	*	*
MODU-485BL	°	*	*	*
MULTICONTROL	°	*	*	*
PR3	°	*	*	*
SAF (1)	°	*	*	*
SDHW (2)	°	*	*	*
SPLW (3)	°	*	*	*
VMF-CRP	°	*	*	*

(1) For more information about SAF refer to the dedicated documentation.

(2) Probe required for MULTICONTROL for managing the domestic hot water system.

(3) Probe required for MULTICONTROL to manage the secondary circuit system.

BSKW: Electric heater kit

Model	Ver	0090	0100	0150
BS6KW400T	°	*	*	*
BS9KW400T	°	*	*	*

BS6KW400T (6kW, 400V 3); BS9KW400T (9kW, 400V 3)

VT: Antivibration

Ver	0090	0100	0150
Integrated hydronic kit: 00, 01, 03, P1, P3			
°	VT15	VT15	VT15

DRE: Device for peak current reduction

Ver	0090	0100	0150
°	DRE10 (1)	DRE10 (1)	DRE15 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRK
4,5,6,7	Size 0090, 0100, 0150
8	Operating yield
°	Standard mechanic thermostatic valve (1)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (2)
11	Version
°	High efficiency
12	Coils
°	Alluminium
R	Copper-copper
S	Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
14	Power supply
°	400V ~ 3N 50Hz
15,16	Integrated hydronic kit
00	Without hydronic kit
01	Storage tank with low head pump
03	Storage tank with high head pump
P1	Single pump low head
P3	Single pump high head

(1) Water produced up to +4 °C.

(2) The desuperheater can only be used with cold running.

PERFORMANCE SPECIFICATIONS

NRK - (°) / 12/7 °C - 40/45 °C

Size		0090	0100	0150
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	18,4	26,4	31,0
Input power	kW	5,8	8,4	9,8
Cooling total input current	A	13,0	18,0	20,0
EER	W/W	3,19	3,15	3,15
Water flow rate system side	l/h	3172	4546	5338
Pressure drop system side	kPa	19	39	54
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	20,8	28,7	34,4
Input power	kW	6,1	8,3	10,3
Heating total input current	A	14,0	17,0	21,0
COP	W/W	3,40	3,45	3,34
Water flow rate system side	l/h	3601	4965	5953
Pressure drop system side	kPa	24	45	65

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - (°) / 23/18 °C - 30/35 °C

Size		0090	0100	0150
Cooling performance 23 °C / 18 °C (1)				
Cooling capacity	kW	24,5	34,9	40,9
Input power	kW	6,1	9,0	10,6
Cooling total input current	A	14,0	18,0	22,0
EER	W/W	4,03	3,88	3,86
Water flow rate system side	l/h	4236	6040	7093
Pressure drop system side	kPa	34	69	95
Heating performance 30 °C / 35 °C (2)				
Heating capacity	kW	20,4	28,2	33,8
Input power	kW	5,0	6,7	8,3
Heating total input current	A	11,0	14,0	17,0
COP	W/W	4,11	4,22	4,09
Water flow rate system side	l/h	3521	4866	5833
Pressure drop system side	kPa	23	43	-

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		0090	0100	0150
Cooling capacity with low leaving water temp (UE n° 2016/2281)				
SEER	° W/W	3,35	3,39	3,42
η _{sc}	° %	131,10	132,60	133,80
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 70 kW (1)				
Pdesignh	° kW	22	28	34
SCOP	°	3,03	2,98	2,90
η _{sh}	° %	118,00	116,00	113,00
Efficiency energy class	°	A+	A+	A+

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

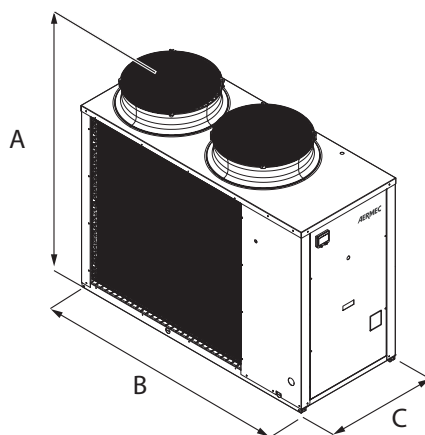
Size		0090	0100	0150
Electric data				
Maximum current (FLA)	° A	19,1	24,6	29,5
Peak current (LRA)	° A	104,2	121,2	143,2

GENERAL TECHNICAL DATA

Size			0090	0100	0150
Compressor					
Type	°	type		Scroll	
Compressor regulation	°	Type		On-Off	
Number	°	no.	1	1	1
Circuits	°	no.	1	1	1
Refrigerant	°	type		R410A	
Refrigerant charge	°	kg	13,0	14,0	16,0
System side heat exchanger					
Type	°	type		Brazed plate	
Number	°	no.	1	1	1
Hydraulic connections					
Connections (in/out)	°	Type		Gas-F	
Size (in)	°	Ø		1½"	
Size (out)	°	Ø		1½"	
Fan					
Type	°	type		axials	
Fan motor	°	type		Asynchronous	
Number	°	no.	2	2	2
Air flow rate	°	m³/h	14200	14200	13700
Sound data calculated in cooling mode (1)					
Sound power level	°	dB(A)	78,0	78,0	78,0
Sound pressure level (10 m)	°	dB(A)	46,5	46,5	46,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0090	0100	0150
Dimensions and weights					
A	°	mm	1450	1450	1450
B	°	mm	1750	1750	1750
C	°	mm	750	750	750
Empty weight	°	kg	289	328	372

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NRK 0200-0700

Reversible air/water heat pump

Cooling capacity 35,5 ÷ 148 kW
Heating capacity 42,31 ÷ 175 kW



- Water produced up to +65 °C
- Heating operations with external temperatures down to -20 °C
- Optimized for operation in heating mode
- Night mode



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

Equipped with scroll compressors, axial fans, external coil with aluminium fins, plate heat exchanger on the side.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

CONTROL

pCO⁵ control type

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

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.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

GP: anti-intrusion grid

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

VT: Antivibration

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22
Integrated hydronic kit: P1, P2, P3, P4										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT22

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)
E	DRE201 (1)	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

7", touch screen keyboard

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	A	-	-	-	-	-	-	-	-	-	-
	E	-	-	-	-	-	-	-	-	-	-

RIF: Power factor correction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61
E	RIF55	RIF56	RIF54	RIF57	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

PRM1: Manually reset pressure switch

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1
E	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRK
4,5,6,7	Size (1) 0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8	Operating yield
°	Standard mechanic thermostatic valve (2)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard (4)
J	Inverter (5)
M	Oversized (6)
14	Power supply
°	400V 3N ~ 50Hz
15,16	Integrated hydronic kit (7)
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) The size 0200÷0330 only available in low noise version "E".

(2) Water produced up to +4 °C

(3) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) As standard in sizes from 0350÷0700.

(5) Standard for size 0200÷0330, without useful static pressure. Option for size 0350÷0700 with useful

static pressure.

(6) Option available only for size 0200÷0330.

(7) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

NRK - A / 12/7 °C - 40/45 °C

Size		0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Cooling performance 12 °C/ 7 °C (2)											
Cooling capacity	kW	-	-	-	-	75,4	88,8	101,6	117,4	133,4	148,1
Input power	kW	-	-	-	-	25,4	29,5	34,4	41,0	45,0	52,6
Cooling total input current	A	-	-	-	-	55,0	61,0	66,0	72,0	87,0	107,0
EER	W/W	-	-	-	-	2,97	3,01	2,95	2,86	2,97	2,82
Water flow rate system side	l/h	-	-	-	-	12983	15278	17488	20211	22975	25516
Pressure drop system side	kPa	-	-	-	-	23	26	32	28	34	42
Heating performance 40 °C/ 45 °C (3)											
Heating capacity	kW	-	-	-	-	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	-	-	-	-	25,5	30,2	34,7	39,9	45,6	51,7
Heating total input current	A	-	-	-	-	54,0	59,0	64,0	70,0	85,0	106,0
COP	W/W	-	-	-	-	3,45	3,44	3,42	3,42	3,41	3,37
Water flow rate system side	l/h	-	-	-	-	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	-	-	-	-	32	36	44	37	45	57

(1) The size 0200÷0330 only available in low noise version "E".

(2) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(3) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - E / 12/7 °C - 40/45 °C

Size		0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Cooling performance 12 °C / 7 °C (2)											
Cooling capacity	kW	35,6	50,4	59,5	66,1	74,4	87,4	99,8	114,5	130,8	145,3
Input power	kW	11,7	17,4	19,5	22,3	27,6	32,4	38,1	45,8	49,5	58,1
Cooling total input current	A	28,0	38,0	42,0	49,0	60,0	67,0	73,0	72,0	95,0	119,0
EER	W/W	3,05	2,90	3,05	2,96	2,69	2,70	2,62	2,50	2,64	2,50
Water flow rate system side	l/h	6131	8670	10235	11379	12801	15035	17175	19713	22512	25033
Pressure drop system side	kPa	18	17	23	19	22	25	30	27	32	41
Heating performance 40 °C / 45 °C (3)											
Heating capacity	kW	42,2	59,7	69,4	78,2	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	12,0	17,0	19,9	22,4	25,5	30,2	34,7	39,9	45,6	51,7
COP	W/W	3,50	3,50	3,49	3,49	3,45	3,44	3,42	3,42	3,41	3,37
Heating total input current	A	24,0	34,0	38,0	44,0	54,0	59,0	64,0	70,0	85,0	106,0
Water flow rate system side	l/h	7318	10355	12032	13569	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	24	22	30	25	32	36	44	37	45	57

(1) The size 0200÷0330 only available in low noise version "E".

(2) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(3) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C

NRK - A / 23/18 °C - 30/35 °C

Size		0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Cooling performance 23 °C / 18 °C (2)											
Cooling capacity	kW	-	-	-	-	93,2	108,2	122,7	143,0	165,0	181,0
Input power	kW	-	-	-	-	26,4	30,7	35,9	43,3	47,0	55,1
Cooling total input current	A	-	-	-	-	57,0	63,0	69,0	75,0	90,0	112,0
EER	W/W	-	-	-	-	3,54	3,53	3,42	3,30	3,51	3,28
Water flow rate system side	l/h	-	-	-	-	16111	18705	21231	24719	28513	31266
Pressure drop system side	kPa	-	-	-	-	35	39	47	42	52	63
Heating performance 30 °C / 35 °C (3)											
Heating capacity	kW	-	-	-	-	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	-	-	-	-	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	-	-	-	-	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	-	-	-	-	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	-	-	-	-	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	-	-	-	-	31	34	41	35	42	54

(1) The size 0200÷0330 only available in low noise version "E".

(2) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(3) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - E / 23/18 °C - 30/35 °C

Size		0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Cooling performance 23 °C / 18 °C (2)											
Cooling capacity	kW	44,2	61,5	72,1	80,9	91,9	106,5	120,6	139,5	161,7	177,5
Input power	kW	12,2	18,2	20,4	23,5	28,7	33,6	39,7	48,3	51,7	60,8
Cooling total input current	A	29,0	40,0	44,0	51,0	62,0	69,0	76,0	75,0	99,0	124,0
EER	W/W	3,64	3,37	3,53	3,44	3,20	3,16	3,04	2,89	3,13	2,92
Water flow rate system side	l/h	7643	10631	12470	13977	15886	18408	20850	24110	27939	30673
Pressure drop system side	kPa	28	26	34	29	34	37	44	40	49	62
Heating performance 30 °C / 35 °C (3)											
Heating capacity	kW	41,4	57,2	67,2	75,7	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	9,4	13,3	15,8	18,1	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	19,0	26,0	30,0	35,0	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	4,41	4,31	4,26	4,18	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	7156	9895	11628	13083	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	23	20	28	23	31	34	41	35	42	54

(1) The size 0200÷0330 only available in low noise version "E".

(2) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(3) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	A	W/W	-	-	-	-	3,45	3,52	3,46	3,42	3,44	3,33
	E	W/W	3,40	3,30	3,48	3,39	3,35	3,42	3,34	3,29	3,35	3,27
η_{sc}	A	%	-	-	-	-	134,80	137,60	135,20	133,70	134,60	130,00
	E	%	133,00	128,80	136,10	132,50	130,90	133,70	130,60	128,70	130,90	127,90
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 400 kW (2)												
Pdesignh	A	kW	-	-	-	-	89	106	121	137	157	178
	E	kW	44	62	70	80	89	106	121	137	157	178
SCOP	A		-	-	-	-	2,88	2,90	3,03	3,03	2,93	2,90
	E		3,08	3,03	3,00	3,03	2,88	2,90	3,03	3,03	2,93	2,90
η_{sh}	A	%	-	-	-	-	112,00	113,00	118,00	118,00	114,00	113,00
	E	%	120,00	118,00	117,00	118,00	112,00	113,00	118,00	118,00	114,00	113,00

(1) The size 0200÷0330 only available in low noise version "E".

(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	75,0	85,0	94,0	114,0	144,0	147,0
	E	A	40,0	49,0	61,0	74,0	75,0	85,0	94,0	114,0	144,0	147,0
Peak current (LRA)	A	A	-	-	-	-	216,0	226,0	191,0	228,0	285,0	288,0
	E	A	124,0	146,0	175,0	215,0	216,0	226,0	191,0	228,0	285,0	288,0

(1) The size 0200÷0330 only available in low noise version "E".

GENERAL TECHNICAL DATA

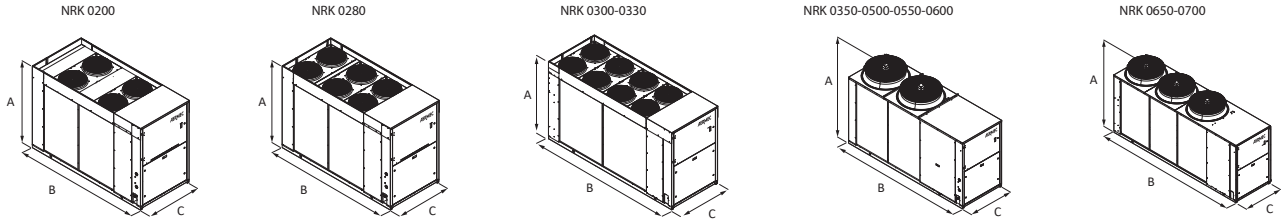
Size			0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	On-Off									
Number	A,E	no.	2	2	2	2	2	3	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R410A									
Refrigerant charge	A	kg	-	-	-	-	23,0	28,0	29,0	29,0	39,0	40,0
	E	kg	14,0	16,0	16,0	16,0	23,0	28,0	29,0	29,0	39,0	40,0
System side heat exchanger												
Type	A,E	type	Braze plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E	Type	Grooved joints									
Sizes (in/out)	A,E	Ø	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	3"
Fan												
Type	A,E	type	axials									
Fan motor	A	type	-	-	-	-	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut
	E	type	Inverter	Inverter	Inverter	Inverter	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut
Number	A	no.	-	-	-	-	2	2	2	2	3	3
	E	no.	4	6	8	8	2	2	2	2	3	3
Air flow rate	A	m³/h	-	-	-	-	37000	36500	36500	36500	58000	58000
	E	m³/h	14000	20000	26000	26000	21100	21400	22400	22400	31900	31900
Sound data calculated in cooling mode (2)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	85,0
	E	dB(A)	74,0	74,0	75,0	75,0	74,0	74,0	74,0	75,0	77,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	53,0	53,0
	E	dB(A)	42,3	42,3	43,2	43,2	42,1	42,1	42,1	43,1	45,0	45,0

(1) The size 0200÷0330 only available in low noise version "E".

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

G.s. = Grooved joints

DIMENSIONS



Size			0200 (1)	0280 (1)	0300 (1)	0330 (1)	0350 (1)	0500 (1)	0550 (1)	0600 (1)	0650 (1)	0700 (1)
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1875
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
B	A	mm	-	-	-	-	3330	3330	3330	3330	4330	4330
	E	mm	2700	2700	3250	3250	3330	3330	3330	3330	4330	4330
C	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	A	kg	-	-	-	-	1118	1264	1325	1367	1562	1597
	E	kg	804	876	960	967	1118	1264	1325	1367	1562	1597

(1) The size 0200÷0330 only available in low noise version "E".

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NRV 0550

Air-water chiller

Cooling capacity 108,3 kW



- Easy and quick to install compact
- Reliability and modularity
- Microchannel coils



DESCRIPTION

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A High efficiency
- E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to 4 °C.

Maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

Modularity

It is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum.

The combination of the various chillers allows all the strengths of the individual module to be maintained.

Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Microchannel coils

Microchannel heat exchanger that guarantees higher thermal exchange yield. Circuit that optimises the liquid distribution in the coil, which is arranged with V beam geometry with open angle.

Components

NYB is already equipped with a water filter, differential pressure switch and butterfly check valves, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.

In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

CONTROL PCO₅

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

Night Mode: it is possible to set a silenced operation profile.

Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode is standard in the unit with J inverter fan and in the E silenced version. Either a DCPX or inverter fan is necessary for the high efficiency version.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GPNY_BACK: kit with 1 anti-intrusion grid for the short side of the unit.

GPNYB_SIDE: kit with 2 anti-intrusion grids for the long side of the unit.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KNYB: Pair of caps with grooved joints assembled on the unit manifold.

KREC: Accessory kit to remote the electric power supply input to the back

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0550
AER485P1	A,E	*
DCPX	A	*
GPNYB_SIDE	A,E	*
GPNY_BACK	A,E	*
MULTICHILLER_EVO	A,E	*
PGD1	A,E	*

DRE: electronic device for peak current reduction

Ver	0550
A,E	DRE (1)

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

KNYB: Pair of caps with grooved joints assembled on the unit manifold

Ver	0550
A,E	KNYB

A grey background indicates the accessory must be assembled in the factory

KREC: kit to remote the electric power supply input to the back

Ver	0550
A,E	KREC

A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	0550
A,E	RIF (1)

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRV
4,5,6,7	Size 0550
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve
9	Model
°	Cooling only
10	Heat recovery
°	Without heat recovery
D	With desuperheater
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils
°	Alluminium microchannel
O	Painted alluminium microchannel
R	Copper-copper
S	Copper-Tinned copper
13	Fans
°	Standard
J	Inverter (2)
14	Power supply
°	400V 3 ~ 50Hz (3)
15,16	Integrated hydronic kit
00	Without hydronic kit

(1) Water produced up to +4 °C

(2) With "J" fan is unnecessary DCPX accessory

(3) With magnet circuit breakers

PERFORMANCE SPECIFICATIONS

Size			0550
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	A	kW	108,3
	E	kW	103,8
Input power	A	kW	34,8
	E	kW	36,2
Cooling total input current	A,E	A	62,0
EER	A	W/W	3,11
	E	W/W	2,86
Water flow rate system side	A	l/h	18646
	E	l/h	17862
Pressure drop system side	A	kPa	32
	E	kPa	30

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0550
SEER - 12/7 (EN14825:2018) with standard fans (1)			
SEER	A	W/W	4,39
	E	W/W	4,33
Seasonal efficiency	A	%	172,6%
	E	%	170,3%
SEER - (EN14825:2018) 12/7 with inverter fans (2)			
SEER	A	W/W	4,51
	E	W/W	4,45
Seasonal efficiency	A	%	177,2%
	E	%	174,8%
SEPR - (EN14825: 2018) High temperature with standard fans (3)			
SEPR	A,E	W/W	5,62
SEPR - (EN14825: 2018) High temperature with inverter fans (3)			
SEPR	A,E	W/W	5,62

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

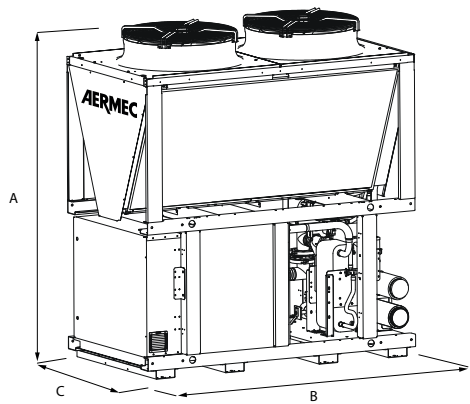
Size			0550
Electric data			
Maximum current (FLA)	A,E	A	95,6
Peak current (LRA)	A,E	A	280,6

GENERAL TECHNICAL DATA

Size			0550
Compressor			
Type	A,E	type	Scroll
Number	A,E	no.	2
Circuits	A,E	no.	1
Refrigerant	A,E	type	R410A
System side heat exchanger			
Type	A,E	type	Brazed plate
Number	A,E	no.	1
System side hydraulic connections			
Connections (in/out)	A,E	Type	Grooved joints
Sizes (in/out)	A,E	Ø	6"
Fan			
Type	A,E	type	Axial
Fan motor	A,E	type	On-Off
Number	A,E	no.	2
Air flow rate	A	m³/h	32000
	E	m³/h	24000
Sound data calculated in cooling mode (1)			
Sound power level	A	dB(A)	85,0
	E	dB(A)	82,0
Sound pressure level (10 m)	A	dB(A)	53,0
	E	dB(A)	50,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0550
Dimensions and weights			
A	A,E	mm	2480
B	A,E	mm	2200
C	A,E	mm	1190
Empty weight	A,E	kg	1105

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NRB 0282-0754

Air-water chiller

Cooling capacity 56 ÷ 202 kW

- High seasonal efficiency
- Night mode
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced
- N Silenced very high efficiency
- U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
 - The temperature control takes place with the integral proportional logic, based on the water output temperature.
 - **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load.
 - **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.
- Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

T6: Double safety valve; high and low pressure with exchange valve.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AER485P1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*

Condensation control temperature

	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Fans: °																
	°	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
	A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
	E,L	DCPX140	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
	N	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
	U	-	-	-	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
Fans: M																
	°	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
	A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
	E	DCPX141	DCPX141	DCPX141	DCPX141	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
	L	DCPX140	DCPX141	DCPX141	DCPX141	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
	N	DCPX141	DCPX141	DCPX141	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
	U	-	-	-	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Integrated hydronic kit: 00															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT17	VT17	VT17	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
Integrated hydronic kit: I1, I2, I3, I4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT17	VT17	VT17	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
Integrated hydronic kit: K1, K2, K3, K4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
Integrated hydronic kit: P1, P2, P3, P4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT17	VT17	VT17	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
N	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)
U	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
° ,A	-	-	-	-	RIF0502	RIF0552	RIF0602	RIF0604
E,L,N	RIF0282	RIF0302	RIF0332	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604
U	-	-	-	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
° ,A,E,L,N,U	RIF0652	RIF0652	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754

A grey background indicates the accessory must be assembled in the factory

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
° ,A	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
E,L,N	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
U	-	-	-	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
° ,A,E,L,N,U	DRENRB652 (1)	DRENRB654 (1)	DRENRB682 (1)	DRENRB702 (1)	DRENRB704 (1)	DRENRB752 (1)	DRENRB754 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
° ,A	-	-	-	-	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
E,N	T6NRB6	T6NRB6	T6NRB6	T6NRB8	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
L	T6NRB6	T6NRB6	T6NRB6	T6NRB6	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
U	-	-	-	T6NRB8	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Touch screen keyboard

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
° ,A,E,L,N,U	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Double mechanical thermostat for low temperature (2)
Z	Low temperature electronic thermostatic valve (3)
9	Model
°	Cooling only
C	Motocondensing unit
10	Heat recovery (4)
°	Without heat recovery
D	With desuperheater
T	With total recovery
11	Version
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
N	Silenced very high efficiency
U	Very high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
M	Oversized
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
1	220V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s

Field	Description
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters
05	Storage tank with holes for heaters and single low head pump (5)
06	Storage tank with holes for heaters and pump low head + stand-by pump (5)
07	Storage tank with holes for heaters and single high head pump (5)
08	Storage tank with holes for heaters and pump high head + stand-by pump (5)
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to fixed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter (6)
W2	Double low head pump + Storage tank + variable speed inverter (6)
W3	Single high head pump + Storage tank + variable speed inverter (6)
W4	Double high head pump + Storage tank + variable speed inverter (6)

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from -10 °C ÷ 18 °C

(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions

(4) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

(6) L'opzione Y e Z non è compatibile con W1/W2/W3/W4

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	98,4	107,0	125,9	125,5	135,1	141,0	159,7	178,9	170,7	195,7	193,5
Input power	kW	-	-	-	-	33,2	37,5	41,6	45,6	47,4	52,2	54,8	60,8	58,3	71,8	67,2
Cooling total input current	A	-	-	-	-	59,0	65,0	71,0	80,0	81,0	92,0	93,0	102,0	104,0	117,0	117,0
EER	W/W	-	-	-	-	2,96	2,85	3,03	2,75	2,85	2,70	2,92	2,95	2,93	2,73	2,88
Water flow rate system side	l/h	-	-	-	-	16941	18444	21694	21620	23270	24282	27502	30805	29385	33700	33309
Pressure drop system side	kPa	-	-	-	-	39	46	42	50	49	48	52	66	71	78	65

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - L

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	56,5	64,3	73,9	85,5	96,3	104,5	122,6	121,5	131,1	134,8	156,1	174,3	166,4	189,9	187,4
Input power	kW	19,8	22,2	24,8	29,6	34,0	38,6	42,9	47,6	49,2	55,0	56,0	62,5	60,0	74,7	69,5
Cooling total input current	A	35,0	41,0	46,0	54,0	59,0	65,0	72,0	82,0	82,0	95,0	93,0	102,0	105,0	119,0	119,0
EER	W/W	2,85	2,90	2,98	2,89	2,83	2,71	2,86	2,55	2,67	2,45	2,79	2,79	2,78	2,54	2,70
Water flow rate system side	l/h	9734	11090	12722	14734	16583	18007	21114	20937	22592	23230	26870	30010	28645	32685	32255
Pressure drop system side	kPa	37	48	39	52	37	43	40	46	45	44	50	62	66	73	61

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - A

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	103,9	114,8	130,1	129,7	140,0	150,2	167,9	186,9	176,8	207,6	198,8
Input power	kW	-	-	-	-	31,4	35,4	40,3	43,5	45,0	47,6	51,9	59,2	56,6	69,6	63,8
Cooling total input current	A	-	-	-	-	55,0	59,0	68,0	73,0	74,0	77,0	86,0	94,0	98,0	103,0	107,0
EER	W/W	-	-	-	-	3,31	3,24	3,23	2,98	3,11	3,16	3,24	3,16	3,12	2,98	3,11
Water flow rate system side	l/h	-	-	-	-	17889	19764	22404	22344	24116	25867	28897	32172	30430	35736	34210
Pressure drop system side	kPa	-	-	-	-	30	36	35	42	40	57	46	56	55	60	58

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - E

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	60,6	68,4	77,0	89,2	100,4	110,5	123,9	122,2	132,4	144,8	161,4	178,0	168,2	195,9	187,7
Input power	kW	18,6	21,1	23,8	28,3	32,5	36,9	42,7	46,6	48,2	49,4	54,0	62,6	59,7	74,7	68,0
Cooling total input current	A	32,0	36,0	41,0	46,0	54,0	59,0	69,0	75,0	77,0	77,0	86,0	95,0	100,0	107,0	110,0
EER	W/W	3,26	3,24	3,23	3,16	3,09	3,00	2,90	2,62	2,75	2,93	2,99	2,84	2,82	2,62	2,76
Water flow rate system side	l/h	10429	11774	13258	15372	17275	19020	21329	21052	22807	24939	27779	30648	28950	33719	32307
Pressure drop system side	kPa	26	33	30	40	27	33	32	36	36	52	42	51	49	53	52

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - U

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	92,7	104,5	117,2	132,1	137,9	146,8	152,9	171,6	191,4	180,5	209,6	202,9
Input power	kW	-	-	-	27,1	30,8	34,5	38,8	41,3	44,2	45,5	50,7	59,3	56,2	67,2	63,1
Cooling total input current	A	-	-	-	51,0	56,0	61,0	68,0	76,0	76,0	86,0	88,0	101,0	104,0	116,0	115,0
EER	W/W	-	-	-	3,42	3,39	3,40	3,40	3,34	3,32	3,36	3,39	3,23	3,21	3,12	3,21
Water flow rate system side	l/h	-	-	-	15945	17984	20172	22745	23741	25275	26327	29532	32945	31067	36076	34915
Pressure drop system side	kPa	-	-	-	24	30	29	38	34	36	42	41	51	48	61	56

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - N

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	60,8	69,0	76,9	89,7	100,8	112,4	128,6	133,5	142,2	147,1	164,5	185,1	174,5	201,1	195,1
Input power	kW	17,8	20,5	22,9	27,8	31,9	36,1	39,4	42,4	45,3	47,2	52,9	60,9	57,5	70,2	65,3
Cooling total input current	A	33,0	39,0	44,0	50,0	55,0	62,0	66,0	74,0	75,0	85,0	88,0	100,0	102,0	116,0	114,0
EER	W/W	3,42	3,37	3,36	3,23	3,16	3,12	3,26	3,15	3,14	3,11	3,11	3,04	3,03	2,87	2,99
Water flow rate system side	l/h	10460	11884	13249	15444	17352	19347	22150	22978	24481	25334	28325	31856	30031	34611	33586
Pressure drop system side	kPa	27	25	31	22	28	27	36	32	34	39	38	48	45	56	52

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

NRB °

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	-	4,23	4,13	4,29	-(2)	4,16	-(2)	4,18	4,16	-(2)	4,14	-(2)
Seasonal efficiency	%	-	-	-	-	166,2%	162,2%	168,4%	-(2)	163,4%	-(2)	164,1%	163,4%	-(2)	162,5%	-(2)
SEER - (EN14825:2018) 12/7 with inverter fans (3)																
SEER	W/W	-	-	-	-	4,34	4,23	4,39	4,12	4,26	4,11	4,28	4,26	4,13	4,24	4,12
Seasonal efficiency	%	-	-	-	-	170,6%	166,2%	172,6%	161,8%	167,3%	161,4%	168,2%	167,4%	162,2%	166,6%	161,8%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																
SEER	W/W	-	-	-	-	5,17	4,95	5,16	4,77	4,95	4,80	5,01	4,99	4,86	4,82	4,90
Seasonal efficiency	%	-	-	-	-	203,9%	194,8%	203,3%	187,7%	195,1%	189,0%	197,3%	196,7%	191,5%	189,9%	193,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	-	5,31	5,07	5,29	4,89	5,04	4,93	5,13	5,12	5,01	4,99	4,95
Seasonal efficiency	%	-	-	-	-	209,3%	199,6%	208,4%	192,7%	198,5%	194,2%	202,2%	201,6%	197,5%	196,5%	194,8%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																
SEPR	W/W	-	-	-	-	5,79	5,61	5,74	5,62	5,66	5,57	5,59	5,84	5,94	5,45	5,76
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																
SEPR	W/W	-	-	-	-	5,79	5,61	5,74	5,62	5,66	5,57	5,59	5,84	5,94	5,45	5,76

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

NRB L

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,28	4,27	4,35	4,25	4,25	4,14	4,27	-(2)	4,11	-(2)	4,22	4,13	-(2)	4,11	-(2)
Seasonal efficiency	%	168,1%	167,8%	171,1%	167,0%	167,0%	162,5%	167,8%	-(2)	161,2%	-(2)	165,7%	162,1%	-(2)	161,3%	-(2)
SEER - (EN14825:2018) 12/7 with inverter fans (3)																
SEER	W/W	4,38	4,37	4,46	4,35	4,36	4,24	4,38	4,11	4,18	4,12	4,32	4,23	4,13	4,19	4,11
Seasonal efficiency	%	172,2%	171,8%	175,4%	171,0%	171,4%	166,6%	172,2%	161,4%	164,2%	161,8%	169,8%	166,2%	162,2%	164,6%	161,4%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																
SEER	W/W	5,05	5,10	5,21	5,09	5,13	4,88	4,99	4,65	4,77	4,52	5,00	4,79	4,78	4,67	4,74
Seasonal efficiency	%	199,0%	201,1%	205,3%	200,7%	202,3%	192,3%	196,6%	183,1%	187,9%	177,6%	197,1%	188,7%	188,1%	183,8%	186,4%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,17	5,22	5,34	5,22	5,27	5,00	5,12	4,81	4,89	4,82	5,13	4,92	4,91	4,83	4,84
Seasonal efficiency	%	203,8%	205,9%	210,6%	205,6%	207,7%	197,1%	201,7%	189,4%	192,7%	189,7%	202,0%	193,6%	193,2%	190,0%	190,4%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																
SEPR	W/W	6,15	6,00	5,97	6,07	5,79	5,65	5,61	5,31	5,55	5,28	5,58	5,60	5,77	5,37	5,53
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																
SEPR	W/W	6,15	6,00	5,97	6,07	5,79	5,65	5,61	5,31	5,55	5,28	5,58	5,60	5,77	5,37	5,53

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

NRB A

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	-	4,37	4,37	4,48	-(2)	4,37	-(2)	4,38	4,29	-(2)	4,33	-(2)
Seasonal efficiency	%	-	-	-	-	171,9%	171,6%	176,1%	-(2)	171,7%	-(2)	172,2%	168,7%	-(2)	170,2%	-(2)
SEER - (EN14825:2018) 12/7 with inverter fans (3)																
SEER	W/W	-	-	-	-	4,48	4,48	4,59	4,48	4,49	4,40	4,44	4,20	4,13	4,34	4,16
Seasonal efficiency	%	-	-	-	-	176,2%	176,2%	180,6%	165,0%	176,2%	162,2%	176,6%	173,0%	170,6%	174,6%	163,4%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																
SEER	W/W	-	-	-	-	5,42	5,28	5,40	4,91	5,22	4,94	5,29	5,10	4,95	5,11	4,99
Seasonal efficiency	%	-	-	-	-	213,6%	208,3%	213,1%	193,5%	205,8%	194,6%	208,7%	201,1%	194,9%	201,3%	196,7%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	-	5,55	5,42	5,54	5,06	5,36	5,11	5,43	5,23	5,30	5,24	5,03
Seasonal efficiency	%	-	-	-	-	219,0%	213,9%	218,6%	199,5%	211,3%	201,3%	214,1%	206,3%	208,8%	206,6%	198,2%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																
SEPR	W/W	-	-	-	-	6,10	5,97	6,00	5,73	5,97	5,74	5,92	5,79	5,89	5,75	5,78
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																
SEPR	W/W	-	-	-	-	6,10	5,97	6,00	5,73	5,97	5,74	5,92	5,79	5,89	5,75	5,78

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

NRB E

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,48	4,58	4,49	4,42	4,37	4,35	4,42	-(2)	4,24	-(2)	4,40	4,21	-(2)	4,23	-(2)
Seasonal efficiency	%	176,2%	180,2%	176,4%	173,6%	171,7%	171,0%	173,8%	-(2)	166,5%	-(2)	172,8%	165,5%	-(2)	166,0%	-(2)
SEER - (EN14825:2018) 12/7 with inverter fans (3)																
SEER	W/W	4,59	4,69	4,60	4,52	4,48	4,46	4,53	4,16	4,34	4,18	4,51	4,32	4,13	4,33	4,11
Seasonal efficiency	%	180,6%	184,6%	181,0%	177,8%	176,2%	175,4%	178,2%	163,4%	170,6%	164,2%	177,4%	169,8%	162,2%	170,2%	161,4%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																
SEER	W/W	5,36	5,48	5,40	5,44	5,33	5,27	5,24	4,68	4,97	4,93	5,23	4,93	4,81	4,90	4,74
Seasonal efficiency	%	211,4%	216,3%	213,1%	214,7%	210,2%	207,9%	206,5%	184,0%	195,9%	194,0%	206,1%	194,2%	189,2%	193,0%	186,5%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,50	5,62	5,55	5,58	5,47	5,41	5,37	4,88	5,10	5,05	5,37	5,06	4,93	5,02	4,88
Seasonal efficiency	%	216,8%	221,6%	218,8%	220,0%	215,7%	213,3%	211,8%	192,0%	200,8%	199,1%	211,6%	199,3%	194,0%	197,9%	192,2%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																
SEPR	W/W	6,46	6,42	6,13	6,36	5,98	5,95	5,79	5,41	5,72	5,68	5,83	5,67	5,69	5,51	5,47
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																
SEPR	W/W	6,46	6,42	6,13	6,36	5,98	5,95	5,79	5,41	5,72	5,68	5,83	5,67	5,69	5,51	5,47

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

NRB U

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	4,62	4,59	4,71	4,54	4,22	4,54	4,20	4,64	4,42	4,11	4,41	4,18
Seasonal efficiency	%	-	-	-	181,7%	180,6%	185,2%	178,5%	165,6%	178,7%	165,1%	182,5%	173,8%	161,4%	173,3%	164,3%
SEER - (EN14825:2018) 12/7 with inverter fans (2)																
SEER	W/W	-	-	-	4,74	4,71	4,82	4,65	4,33	4,66	4,31	4,76	4,53	4,22	4,52	4,29
Seasonal efficiency	%	-	-	-	186,6%	185,4%	189,8%	183,0%	170,2%	183,4%	169,4%	187,4%	178,2%	165,8%	177,8%	168,6%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	-	-	-	5,77	5,71	5,71	5,58	5,18	5,53	5,17	5,64	5,32	5,08	5,27	5,07
Seasonal efficiency	%	-	-	-	227,6%	225,5%	225,4%	220,3%	204,0%	218,3%	203,6%	222,7%	209,6%	200,0%	207,9%	199,9%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	5,92	5,86	5,85	5,72	5,32	5,68	5,30	5,79	5,45	5,22	5,41	5,21
Seasonal efficiency	%	-	-	-	233,8%	231,4%	231,1%	225,8%	209,6%	224,0%	209,0%	228,7%	214,9%	205,7%	213,4%	205,4%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	-	-	-	6,43	6,30	6,31	6,01	6,15	6,09	5,88	6,19	5,88	6,05	5,85	6,07
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	-	-	-	6,43	6,30	6,31	6,01	6,15	6,09	5,88	6,19	5,88	6,05	5,85	6,07

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(3) Calculation performed with FIXED water flow rate.

NRB N

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,68	4,72	4,62	4,69	4,56	4,65	4,72	4,42	4,61	4,28	4,65	4,49	4,24	4,45	4,20
Seasonal efficiency	%	184,0%	185,7%	181,7%	184,7%	179,5%	182,9%	185,9%	173,7%	181,2%	168,2%	182,9%	176,4%	166,7%	174,9%	165,1%
SEER - (EN14825:2018) 12/7 with inverter fans (2)																
SEER	W/W	4,79	4,84	4,73	4,81	4,68	4,76	4,84	4,53	4,72	4,39	4,77	4,60	4,35	4,56	4,31
Seasonal efficiency	%	188,6%	190,6%	186,2%	189,4%	184,2%	187,4%	190,6%	178,2%	185,8%	172,6%	187,8%	181,0%	171,0%	179,4%	169,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	5,61	5,67	5,59	5,76	5,58	5,54	5,74	5,35	5,53	5,15	5,56	5,32	5,13	5,24	5,07
Seasonal efficiency	%	221,4%	223,8%	220,6%	227,5%	220,0%	218,7%	226,6%	210,9%	218,2%	203,0%	219,5%	209,7%	202,2%	206,7%	199,9%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,75	5,82	5,73	5,91	5,72	5,68	5,88	5,49	5,67	5,29	5,71	5,46	5,27	5,38	5,21
Seasonal efficiency	%	227,0%	229,8%	226,3%	233,3%	225,8%	224,1%	232,3%	216,4%	223,7%	208,5%	225,3%	215,3%	207,6%	212,1%	205,2%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	6,71	6,53	6,23	6,54	6,22	6,21	6,16	6,12	6,14	5,93	6,09	5,97	6,08	5,83	5,90
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	6,71	6,53	6,23	6,54	6,22	6,21	6,16	6,12	6,14	5,93	6,09	5,97	6,08	5,83	5,90

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Electric data																
Maximum current (FLA)	°	A	-	-	-	-	72,2	77,1	86,0	98,2	94,9	111,3	112,7	127,3	131,4	144,0
	A	A	-	-	-	-	72,2	77,1	86,0	98,2	94,9	114,5	112,7	127,3	131,4	144,0
	E	A	42,6	49,2	56,9	65,3	72,2	77,1	86,0	98,2	94,9	114,5	112,7	127,3	131,4	144,0
	L	A	41,5	49,2	55,8	65,3	72,2	77,1	86,0	98,2	94,9	111,3	112,7	127,3	131,4	144,0
	N	A	42,6	50,3	56,9	67,3	72,2	77,1	89,2	101,3	98,1	114,5	112,7	130,5	134,6	147,2
	U	A	-	-	-	67,3	72,2	77,1	89,2	101,3	98,1	114,5	112,7	130,5	134,6	147,2
Peak current (LRA)	°	A	-	-	-	-	277,6	282,5	329,2	211,9	338,1	228,3	363,8	378,4	274,9	476,4
	A	A	-	-	-	-	277,6	282,5	329,2	211,9	338,1	228,3	363,8	378,4	274,9	476,4
	E	A	148,0	163,0	170,6	208,9	277,6	282,5	329,2	211,9	338,1	228,3	363,8	378,4	274,9	476,4
	L	A	146,9	163,0	169,5	208,9	277,6	282,5	329,2	211,9	338,1	225,1	363,8	378,4	274,9	476,4
	N	A	148,0	164,1	170,6	210,8	277,6	282,5	332,4	215,1	341,3	228,3	363,8	381,6	278,1	479,6
	U	A	-	-	-	210,8	277,6	282,5	332,4	215,1	341,3	228,3	363,8	381,6	278,1	479,6

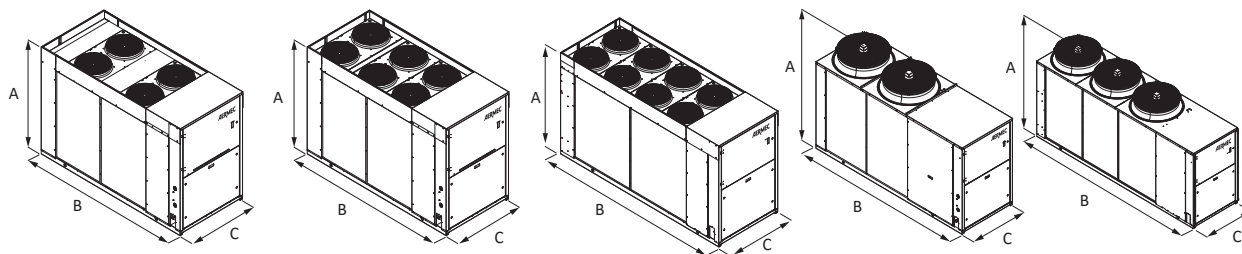
GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Compressor																	
Type	°A,E,L,N,U	type	Scroll														
Number	°A	no.	-	-	-	-	2	2	2	4	2	4	2	2	4	2	4
	E,L,N	no.	2	2	2	2	2	2	2	4	2	4	2	2	4	2	4
	U	no.	-	-	-	2	2	2	2	4	2	4	2	2	4	2	4
Circuits	°A	no.	-	-	-	-	1	1	1	2	1	2	1	1	2	1	2
	E,L,N	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1	2
	U	no.	-	-	-	1	1	1	1	2	1	2	1	1	2	1	2
Refrigerant	°A,E,L,N,U	type	R410A														
System side heat exchanger																	
Type	°A,E,L,N,U	type	Braze plate														
Number	°A	no.	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
	E,L,N	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	U	no.	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Sizes (in/out)	°A	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
	E,L,N	Ø	2" 1/2														
	U	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
Fan																	
Type	°A,E,L,N,U	type	Axial														
Number	°	no.	-	-	-	-	2	2	2	2	3	3	3	2	2	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	3	3	3	2	3	3	3
	L	no.	4	6	6	8	2	2	2	2	3	3	3	2	2	3	3
	N	no.	6	8	8	2	2	2	3	3	3	4	4	3	3	4	4
	U	no.	-	-	-	2	2	2	3	3	3	4	4	3	3	4	4
Air flow rate	°	m³/h	-	-	-	-	36600	36600	35100	35100	55200	53100	53100	35100	33700	53100	53100
	A	m³/h	-	-	-	-	35100	35100	33800	33700	53100	51100	51100	33800	53100	51100	51100
	E	m³/h	20700	22200	27500	24800	26800	26800	25600	25600	40500	38800	38800	25600	40500	38800	38800
	L	m³/h	15200	20700	22200	27500	30900	30900	29500	29500	46500	44600	44600	29500	28300	44600	44600
	N	m³/h	22200	27500	24800	26800	25600	25600	40500	40500	38800	54600	54600	40500	38800	54600	54600
	U	m³/h	-	-	-	35100	33700	33700	53100	53100	51100	71200	71200	53100	51100	71200	71200
Sound data calculated in cooling mode (1)																	
Sound power level	°	dB(A)	-	-	-	-	85,0	85,0	85,0	84,0	86,0	84,0	87,0	87,0	86,0	88,0	88,0
	A	dB(A)	-	-	-	-	85,0	85,0	85,0	84,0	86,0	86,0	87,0	87,0	86,0	88,0	88,0
	E	dB(A)	72,0	73,0	74,0	74,0	81,0	82,0	82,0	76,0	83,0	77,0	84,0	84,0	77,0	85,0	83,0
	L	dB(A)	72,0	73,0	73,0	74,0	81,0	82,0	82,0	76,0	83,0	77,0	84,0	84,0	77,0	85,0	83,0
	N	dB(A)	72,0	73,0	74,0	80,0	81,0	82,0	83,0	77,0	83,0	77,0	84,0	84,0	78,0	85,0	83,0
	U	dB(A)	-	-	-	84,0	85,0	85,0	87,0	86,0	87,0	86,0	87,0	88,0	87,0	89,0	89,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

G.s. = Grooved joints

DIMENSIONS



Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Dimensions and weights																
A	°A	mm	-	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	E,L	mm	1680	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	N	mm	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	U	mm	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
B	°	mm	-	-	-	-	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	A	mm	-	-	-	-	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	N	mm	2950	2950	2950	3200	3200	3200	4010	4010	4010	4010	5200	5200	5200	5200
	U	mm	-	-	-	3200	3200	3200	4010	4010	4010	4010	5200	5200	5200	5200
C	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L,N	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	U	mm	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Weights																
Without hydronic kit	°	kg	-	-	-	-	993	1018	1075	1160	1075	1210	1267	1427	1331	1440
	A	kg	-	-	-	-	1046	1072	1116	1200	1116	1325	1347	1507	1410	1531
	E	kg	828	889	912	962	1046	1072	1116	1116	1347	1507	1531	1200	1325	1410
	L	kg	810	828	894	907	993	1018	1075	1160	1075	1210	1267	1427	1331	1440
	N	kg	884	907	957	1020	1076	1109	1232	1243	1426	1647	1660	1327	1415	1549
	U	kg	-	-	-	1020	1076	1109	1232	1243	1426	1647	1660	1327	1415	1549

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0282H-0754H

Reversible air/water heat pump

Cooling capacity 52 ÷ 261 kW
Heating capacity 57 ÷ 193 kW

- High efficiency also at partial loads
- Components redundancy for greater safety
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

- **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan

Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AER48SP1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Fans: °															
°	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
E,L	DCPX140	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
Fans: M															
E,L	DCPX141	DCPX141	DCPX141	DCPX141	-	-	-	-	-	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Integrated hydronic kit: 00															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: I1, I2, I3, I4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: K1, K2, K3, K4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: P1, P2, P3, P4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: W1, W2, W3, W4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22

The accessory cannot be fitted on the configurations indicated with -

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
°A	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
E,L	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
°A,E,L	DRENRB652 (1)	DRENRB654 (1)	DRENRB682 (1)	DRENRB702 (1)	DRENRB704 (1)	DRENRB752 (1)	DRENRB754 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°A	-	-	-	-	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754
E,L	RIF0282	RIF0302	RIF0332	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Touch screen keyboard

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°A,E,L	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Double mechanical thermostat for low temperature (2)
Z	Low temperature electronic thermostatic valve (3)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
11	Version (5)
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
M	Oversized (6)
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
1	220V ~ 3 50Hz with magnet circuit breakers (7)
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump

Field	Description
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (8)
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to fixed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter
W2	Double low head pump + Storage tank + variable speed inverter
W3	Single high head pump + Storage tank + variable speed inverter
W4	Double high head pump + Storage tank + variable speed inverter

- (1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from -10 °C ÷ 18 °C
(3) Water produced from 4 °C ÷ 18 °C for "°" version; -10 °C for the others versions
(4) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35 °C must always be guaranteed on the heat exchanger inlet.
(5) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"
(6) Only for 0282 ÷ 0352 sizes
(7) Only for sizes up 0282 from 0352 and from 0604 to 0704
(8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C / 7 °C - 40 °C / 45 °C

NRB H°

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	91,2	99,7	116,0	115,4	124,7	133,4	151,0	169,9	159,9	187,2	180,8
Input power	kW	-	-	-	-	33,5	37,5	42,6	46,2	47,8	51,2	51,7	60,0	58,0	69,8	65,7
Cooling total input current	A	-	-	-	-	61,0	67,0	74,0	83,0	83,0	92,0	90,0	102,0	105,0	116,0	116,0
EER	W/W	-	-	-	-	2,72	2,66	2,72	2,50	2,61	2,60	2,92	2,83	2,76	2,68	2,75
Water flow rate system side	l/h	-	-	-	-	15705	17177	19972	19876	21484	22988	25997	29247	27534	32236	31116
Pressure drop system side	kPa	-	-	-	-	35	42	37	44	43	44	50	61	65	74	59
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	-	-	-	-	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	-	-	-	-	31,0	33,8	38,7	42,7	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	-	-	-	-	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	-	-	-	-	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	-	-	-	-	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	-	-	-	-	40	48	43	56	52	52	56	69	76	84	65

- (1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	52,1	59,2	67,3	78,1	88,5	96,5	111,5	110,4	119,3	126,4	147,0	164,5	154,9	180,5	174,0
Input power	kW	19,5	22,0	24,8	29,5	34,1	38,3	44,1	48,4	49,9	54,2	52,3	61,5	59,2	72,5	67,8
Cooling total input current	A	35,0	41,0	47,0	55,0	59,0	66,0	74,0	84,0	84,0	94,0	87,0	100,0	103,0	116,0	116,0
EER	W/W	2,67	2,69	2,71	2,65	2,60	2,52	2,53	2,28	2,39	2,33	2,81	2,68	2,62	2,49	2,57
Water flow rate system side	l/h	8974	10197	11584	13455	15234	16630	19200	19020	20540	21776	25312	28324	26677	31068	29958
Pressure drop system side	kPa	33	42	33	45	33	39	34	40	39	40	48	58	60	69	55
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	57,5	65,7	75,3	84,9	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	17,6	20,7	23,1	26,9	31,0	33,8	38,7	42,6	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	32,0	38,0	43,0	51,0	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	3,27	3,17	3,26	3,16	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	9973	11376	13056	14711	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	41	53	42	54	40	47	43	55	52	52	56	69	75	84	65

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	96,9	106,5	123,6	123,1	133,6	142,1	163,9	178,5	168,0	199,9	190,0
Input power	kW	-	-	-	-	32,3	36,1	39,5	43,3	45,0	47,2	50,7	57,0	55,4	66,5	62,8
Cooling total input current	A	-	-	-	-	57,0	61,0	68,0	73,0	74,0	79,0	85,0	94,0	99,0	102,0	106,0
EER	W/W	-	-	-	-	3,00	2,95	3,13	2,84	2,97	3,01	3,23	3,13	3,03	3,01	3,03
Water flow rate system side	l/h	-	-	-	-	16684	18331	21277	21205	23007	24462	28216	30726	28924	34406	32698
Pressure drop system side	kPa	-	-	-	-	26	31	32	38	38	50	44	52	50	56	54
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	-	-	-	-	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	-	-	-	-	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	-	-	-	-	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	-	-	-	-	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	-	-	-	-	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	-	-	-	-	28	34	33	42	41	56	45	54	54	57	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	55,4	62,1	70,0	81,2	94,0	103,0	119,1	117,6	128,0	138,3	159,4	172,5	162,3	191,7	182,6
Input power	kW	18,5	21,0	23,7	28,3	32,8	36,9	40,7	44,7	46,9	47,7	51,4	58,5	56,7	69,3	64,9
Cooling total input current	A	32,0	37,0	42,0	47,0	56,0	61,0	68,0	74,0	75,0	76,0	83,0	93,0	98,0	102,0	106,0
EER	W/W	3,00	2,96	2,95	2,86	2,86	2,79	2,92	2,63	2,73	2,90	3,10	2,95	2,87	2,77	2,81
Water flow rate system side	l/h	9530	10696	12052	13983	16181	17722	20498	20255	22037	23819	27431	29692	27947	33000	31425
Pressure drop system side	kPa	23	29	26	35	24	29	30	34	34	48	41	49	47	51	50
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	59,0	68,2	76,6	87,1	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	17,5	20,3	22,9	26,4	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	33,0	38,0	44,0	50,0	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	3,37	3,36	3,35	3,30	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	10227	11816	13289	15100	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	26	35	31	41	28	34	33	42	41	56	45	54	54	57	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

NRB H°

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C/ 18 °C (1)																
Cooling capacity	kW	-	-	-	-	122,6	133,3	155,1	154,9	165,6	183,4	203,5	227,9	218,9	248,3	247,3
Input power	kW	-	-	-	-	36,3	41,0	46,5	50,2	52,2	55,9	55,8	65,6	62,6	77,0	72,2
Cooling total input current	A	-	-	-	-	65,0	72,0	80,0	89,0	90,0	99,0	96,0	110,0	112,0	126,0	126,0
EER	W/W	-	-	-	-	3,38	3,25	3,33	3,08	3,17	3,28	3,65	3,48	3,50	3,23	3,42
Water flow rate system side	l/h	-	-	-	-	21190	23054	26805	26775	28622	31700	35175	39395	37837	42931	42743
Pressure drop system side	kPa	-	-	-	-	63	75	67	81	76	84	92	111	123	131	112
Heating performance 30 °C/ 35 °C (2)																
Heating capacity	kW	-	-	-	-	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	-	-	-	-	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	-	-	-	-	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	-	-	-	-	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	-	-	-	-	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	-	-	-	-	41	49	45	59	54	54	59	72	80	86	68

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C/ 18 °C (1)																
Cooling capacity	kW	69,6	79,3	92,2	105,6	118,1	128,2	147,6	146,8	156,6	170,9	196,8	218,8	210,1	237,3	235,3
Input power	kW	21,9	24,2	27,3	32,5	37,3	42,4	48,9	53,8	55,5	60,7	57,2	68,1	64,8	81,0	75,7
Cooling total input current	A	39,0	44,0	51,0	60,0	64,0	72,0	81,0	92,0	93,0	104,0	94,0	110,0	111,0	128,0	128,0
EER	W/W	3,18	3,27	3,37	3,25	3,17	3,02	3,02	2,73	2,82	2,82	3,44	3,22	3,24	2,93	3,11
Water flow rate system side	l/h	12041	13740	15960	18270	20427	22163	25508	25376	27064	29542	34006	37824	36327	41017	40668
Pressure drop system side	kPa	59	77	63	83	59	69	61	70	68	73	86	103	112	120	101
Heating performance 30 °C/ 35 °C (2)																
Heating capacity	kW	58,9	66,7	77,1	86,8	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	13,9	16,5	18,4	21,5	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	25,0	30,0	34,0	40,0	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	4,25	4,06	4,19	4,03	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	10168	11516	13317	14972	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	42	54	44	56	41	48	45	57	54	54	59	72	79	86	68

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C/ 18 °C (1)																
Cooling capacity	kW	-	-	-	-	131,3	143,6	166,5	170,4	178,7	198,2	222,3	241,2	231,6	268,1	261,3
Input power	kW	-	-	-	-	34,9	39,4	42,9	47,2	49,0	50,3	54,8	62,4	59,6	73,6	68,8
Cooling total input current	A	-	-	-	-	61,0	66,0	74,0	79,0	80,0	82,0	91,0	101,0	105,0	112,0	115,0
EER	W/W	-	-	-	-	3,77	3,65	3,88	3,61	3,65	3,94	4,06	3,86	3,88	3,65	3,80
Water flow rate system side	l/h	-	-	-	-	22699	24821	28771	29452	30874	34255	38412	41683	40019	46336	45163
Pressure drop system side	kPa	-	-	-	-	48	57	59	73	68	98	81	97	96	102	103
Heating performance 30 °C/ 35 °C (2)																
Heating capacity	kW	-	-	-	-	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	-	-	-	-	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	-	-	-	-	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	-	-	-	-	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	-	-	-	-	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	-	-	-	-	30	36	35	45	43	60	47	56	56	58	57

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	76,4	85,7	96,8	111,4	126,2	137,5	158,5	160,4	168,9	191,5	214,3	230,5	221,2	253,2	247,4
Input power	kW	20,4	23,1	25,7	31,2	35,9	41,0	45,2	49,8	52,2	51,4	56,4	65,1	62,1	78,2	72,6
Cooling total input current	A	35,0	40,0	45,0	51,0	61,0	67,0	75,0	81,0	82,0	81,0	90,0	102,0	106,0	114,0	117,0
EER	W/W	3,74	3,72	3,77	3,57	3,51	3,36	3,51	3,22	3,24	3,72	3,80	3,54	3,56	3,24	3,41
Water flow rate system side	l/h	13219	14836	16740	19268	21829	23767	27392	27721	29185	33098	37025	39827	38232	43759	42750
Pressure drop system side	kPa	43	55	50	66	44	52	53	64	60	92	75	88	88	91	92
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	60,5	70,2	78,9	90,4	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	13,8	16,1	18,2	21,1	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	26,0	30,0	35,0	40,0	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	4,38	4,36	4,34	4,28	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	10456	12125	13636	15617	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	27	37	33	43	30	36	35	45	43	60	47	56	56	58	57

(1) Data 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C / 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER	°	W/W	-	-	-	-	3,92	3,83	3,99	3,70	3,91	3,67	4,14	3,97	3,73	3,88
	A	W/W	-	-	-	-	4,21	4,14	4,39	3,93	4,20	3,92	4,38	4,27	3,99	4,24
	E	W/W	4,28	4,32	4,22	4,24	4,17	4,10	4,33	3,86	4,12	3,93	4,35	4,21	3,98	4,16
	L	W/W	4,10	4,11	4,11	4,00	3,88	3,83	3,93	3,68	3,89	3,64	4,08	3,89	3,70	3,81
η _{sc}	°	%	-	-	-	-	154%	150%	157%	145%	153%	144%	163%	156%	146%	152%
	A	%	-	-	-	-	165%	163%	173%	154%	165%	154%	172%	168%	157%	167%
	E	%	168%	170%	166%	166%	164%	161%	170%	151%	162%	154%	171%	165%	156%	163%
	L	%	161%	161%	161%	157%	152%	150%	154%	144%	153%	143%	160%	152%	145%	149%
UE 813/2013 performance in average ambient conditions (average) - 35 °C - P_{designh} ° 400 kW (1)																
SCOP	°	-	-	-	-	-	3,47	3,56	3,58	3,33	3,58	3,31	3,43	3,51	3,22	3,52
	A	-	-	-	-	-	3,54	3,65	3,65	3,40	3,66	3,38	3,57	3,61	3,29	3,62
	E	4,03	4,04	4,03	3,89	3,54	3,65	3,65	3,40	3,66	3,38	3,57	3,61	3,29	3,62	3,40
	L	3,98	3,90	3,88	3,83	3,47	3,56	3,58	3,33	3,58	3,31	3,43	3,51	3,22	3,52	3,29
η _{sh}	°	%	-	-	-	-	136%	139%	140%	130%	140%	129%	134%	137%	126%	138%
	A	%	-	-	-	-	138%	143%	143%	133%	144%	132%	140%	141%	128%	142%
	E	%	158%	159%	158%	153%	138%	143%	143%	133%	144%	132%	140%	141%	128%	142%
	L	%	156%	153%	152%	150%	136%	139%	140%	130%	140%	129%	134%	137%	126%	138%

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

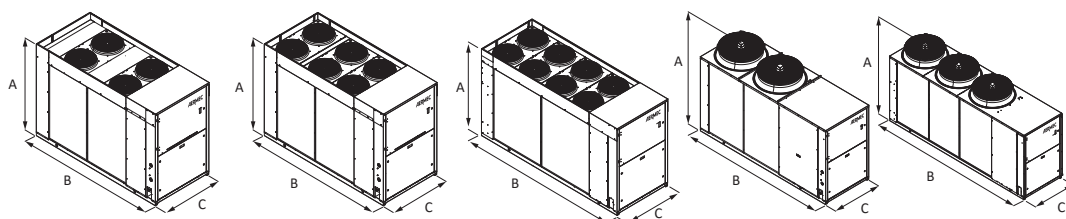
Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Electric data																
Maximum current (FLA)	°	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2
	A	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2
	E	A	42,6	49,2	56,9	65,3	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2
	L	A	41,5	49,2	55,8	65,3	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2
Peak current (LRA)	°	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6
	A	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6
	E	A	148,0	163,0	170,6	208,9	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6
	L	A	146,9	163,0	169,5	208,9	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Compressor																	
Type	°A,E,L	type	Scroll														
Compressor regulation	°A,E,L	Type	On-Off														
Number	°A	no.	-	-	-	-	2	2	2	4	2	4	2	2	4	2	4
	E,L	no.	2	2	2	2	2	2	2	4	2	4	2	2	4	2	4
Circuits	°A	no.	-	-	-	-	1	1	1	2	1	2	1	1	2	1	2
	E,L	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1	2
Refrigerant	°A,E,L	type	R410A														
Refrigerant charge	°	kg	-	-	-	-	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
	A	kg	-	-	-	-	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	E	kg	9,1	10,7	11,1	12,5	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	L	kg	8,8	9,4	10,3	11,0	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
System side heat exchanger																	
Type	°A,E,L	type	Braze plate														
Number	°A	no.	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
	E,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	°A,E,L	Type	Grooved joints														
Sizes (in/out)	°A,E,L	Ø	2" 1/2														
Fan																	
Type	°A,E,L	type	Axial														
Number	°	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	2	3	3	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	2	2	3	3	3	3	3
Air flow rate	°	m³/h	-	-	-	-	42785	42785	41094	41065	41094	39542	62015	61936	61936	61936	61936
	A	m³/h	-	-	-	-	41080	41080	39461	39461	59701	59684	59684	39461	61963	59684	59684
	E	m³/h	21230	22746	28176	25787	31149	31149	29855	29855	29855	47085	45202	45187	45187	45187	45187
	L	m³/h	15574	21226	22732	28156	32650	32650	31613	31169	31161	29823	47087	47125	47125	47125	47125
Sound data calculated in cooling mode (1)																	
Sound power level	°	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	86,5	88,8	88,9	88,2	89,4	89,5
	A	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	88,2	88,8	88,9	88,2	89,4	89,5
	E	dB(A)	73,0	73,5	74,3	74,5	82,2	82,9	83,3	76,7	83,7	77,8	84,9	85,0	78,0	86,1	84,0
	L	dB(A)	72,4	73,5	73,9	74,5	82,2	82,9	83,3	76,7	83,7	77,1	84,9	85,0	78,0	86,1	84,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	54,6	56,8	56,9	56,2	57,4	57,5
	A	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	56,2	56,8	56,9	56,2	57,4	57,5
	E	dB(A)	41,3	41,7	42,5	42,7	50,3	51,0	51,4	44,8	51,8	45,8	52,9	53,1	46,0	54,1	52,0
	L	dB(A)	40,7	41,7	42,1	42,7	50,3	51,0	51,4	44,8	51,8	45,3	52,9	53,1	46,0	54,1	52,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Dimensions and weights																	
A	°A	mm	-	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	E,L	mm	1680	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	°	mm	-	-	-	-	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
B	A	mm	-	-	-	-	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
C	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

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HMG

Reversible air/water heat pump

Cooling capacity 32 ÷ 60 kW
 Heating capacity 35 ÷ 65 kW



- New R32 ecological refrigerant gas
- Touch-screen control panel
- Easy and quick to install
- Reliability and compactness



DESCRIPTION

Reversible inverter outdoor heat pumps for the production of chilled and heated water.

Designed to meet the plant needs of residential or commercial contexts, or industrial applications.

The base the structure and the panels are made of steel treated with polyester paint.

FEATURES

Operating limits

Operation from -15°C outside air temperature (winter) to 40°C (summer).

Production of hot water up to 50 °C.

Main components

- Flow switch.
- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Compressor twin rotary inverter.
- Special coil with fin golden coating.
- High-efficiency shell & tube heat exchanger (system side) for excellent reliability and a long lifespan.
- Electronic expansion valve.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

Regulation

Adjustment via **touch-screen control panel (TCP accessory compulsory)**:

- management of (up to) two pumps (not supplied) that can work alternately, boosting the reliability of the system,
- management of (up to) two auxiliary electric resistors (not supplied),
- **Quiet** function for reduced noise operation,
- climatic regulation function,

- unit anti-freeze protection at low temperatures,
- weekly programming in time periods,
- high and low pressure protection,
- smart compressor control, extending the lifespan of the unit and enhancing its reliability,
- alarm history.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



ACCESSORIES

TCP: Touch-screen control panel. (Accessory compulsory).

PERFORMANCE SPECIFICATIONS

		HMG0350	HMG0600
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	kW	32,0	60,0
Input power	kW	11,7	20,8
Water flow rate system side	l/h	5500	10320
Cooling total input current	A	19,2	32,9
EER	W/W	2,74	2,88
Heating performance 40 °C / 45 °C (2)			
Heating capacity	kW	35,0	65,0
Input power	kW	10,6	19,9
Water flow rate system side	l/h	6020	11180
Heating total input current	A	17,5	30,7
COP	W/W	3,30	3,27

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMG0350	HMG0600
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ~ 70 kW (1)			
Pdesignh	kW	24	51
SCOP		3,90	3,90
ηsh	%	153,00	153,00
Efficiency energy class		A++	A++
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
ηsc	%	173,00	181,00
SEER	W/W	4,40	4,60

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

		HMG0350	HMG0600
Electric data			
Rated current input (1)	A	19,2	32,9
Power supply			
Power supply		380-415V 3N ~ 50Hz	380-415V 3N ~ 50Hz

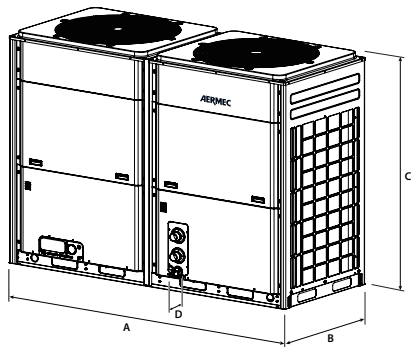
(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

GENERAL TECHNICAL DATA

		HMG0350	HMG0600
Compressor			
Type	type	Inverter rotary	
Number	no.	1	2
Circuits	no.	1	2
Refrigerant	type	R32	
Refrigerant charge	kg	5,5	11,0
System side heat exchanger			
Type	type	Shell and tube	
Number	no.	1	1
Connections (in/out)	Type	G1" 1/2 (male)	G2" (male)
Fan			
Type	type	Axial	
Fan motor	type	Inverter	
Number	no.	2	2
Air flow rate	m³/h	12600	24000
Sound data calculated in heating mode			
Sound power level (1)	dB(A)	78,0	86,0

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

DIMENSIONS



		HMG0350	HMG0600
Dimensions and weights			
A	mm	1340	2200
B	mm	765	880
C	mm	1605	1675
D	mm	80	85
Net weight	kg	405	686
Weight for transport	kg	422	722

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NRG 0282-0804

Air-water chiller

Cooling capacity 55,8 ÷ 224,6 kW

- High efficiency also at partial loads
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with streamlined scroll compressors used with R32 gas.

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

Standard silenced

N Silenced very high efficiency

U Very high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

Units mono or dual-circui

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

- The leak detector is supplied as per standard.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

- **VARIABLE FLOW RATE:** *Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption and to guarantee operation of the unit even in critical conditions.*

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.

- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
AER485P1	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	U				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E,L	DCPX145	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard
N	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard	As standard
U	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146

The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°A	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	-	-
N	As standard	As standard	As standard	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
U	DCPX146	DCPX146	DCPX146	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Integrated hydronic kit: 00																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: I1, I2, I3, I4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Integrated hydronic kit: K1, K2, K3, K4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: P1, P2, P3, P4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: W1, W2, W3, W4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
E,L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
N	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)
U	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A,E	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	-	-
N,U	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652
°A	-	-	-	-	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652
E,L,N	DRENRG282	DRENRG302	DRENRG332	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652
U	-	-	-	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0654	0682	0702	0704	0752	0754	0802	0804
°A,E,N,U	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	DRENRG802	DRENRG804
L	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	-	-

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652
°A	-	-	-	-	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652
E,L,N	RIFNRG282	RIFNRG302	RIFNRG332	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652
U	-	-	-	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0654	0682	0702	0704	0752	0754	0802	0804
°A,E,N,U	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	RIFNRG802	RIFNRG804
L	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	-	-

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRG
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804
8	Operating yeld
X	Electronic thermostatic expansion valve (1)
Z	Low temperature electronic thermostatic valve (2)
9	Model
°	Cooling only
10	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
T	With total recovery
11	Version (4)
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
N	Silenced very high efficiency
U	Very high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
J	Inverter (5)
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (6)
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to yxed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to yxed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter
W2	Double low head pump + Storage tank + variable speed inverter
W3	Single high head pump + Storage tank + variable speed inverter
W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 8 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.

(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(4) The size 0282-0302-0332-0352 only available in low noise versions.

(5) As standard in size 0702-0704-0752-0754-0802-0804 in the version U and N.

(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRG - °

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	100,8	110,6	117,6	127,1	130,0	138,5	143,5	161,9	182,0	171,7	203,9	194,0	222,4	212,3
Input power	kW	-	-	-	-	33,4	37,8	37,8	39,7	44,2	45,1	50,7	52,5	59,4	57,4	69,6	66,5	80,4	74,8
Cooling total input current	A	-	-	-	-	59,0	64,0	59,0	68,0	79,0	77,0	91,0	88,0	95,0	108,0	111,0	117,0	127,0	126,0
EER	W/W	-	-	-	-	3,02	2,92	3,11	3,20	2,94	3,07	2,83	3,08	3,06	2,99	2,93	2,92	2,77	2,84
Water flow rate system side	l/h	-	-	-	-	17363	19059	20268	21893	22383	23841	24712	27874	31338	29554	35100	33389	38287	36547
Pressure drop system side	kPa	-	-	-	-	40	49	46	44	56	53	50	54	69	71	68	67	81	80

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRG - L

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754		
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	55,8	63,8	73,3	84,5	98,9	108,2	113,4	123,5	123,9	132,9	139,3	159,0	178,5	168,5	198,8	189,6		
Input power	kW	19,7	22,1	24,4	28,6	33,9	38,6	38,5	40,9	45,2	46,7	53,6	53,5	60,3	59,0	71,8	68,2		
Cooling total input current	A	32,0	41,0	45,0	55,0	58,0	63,0	59,0	68,0	79,0	77,0	92,0	88,0	96,0	107,0	112,0	117,0		
EER	W/W	2,83	2,88	3,01	2,95	2,92	2,80	2,95	3,02	2,74	2,85	2,60	2,97	2,96	2,85	2,77	2,78		
Water flow rate system side	l/h	9604	10989	12618	14572	17043	18647	19537	21269	21332	22880	23984	27367	30726	29004	34224	32640		
Pressure drop system side	kPa	35	46	37	50	39	46	45	43	54	50	47	52	66	69	65	64		

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRG - A

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	105,3	116,3	118,7	129,7	132,2	141,2	151,3	167,9	186,4	177,0	208,8	199,2	228,6	218,5
Input power	kW	-	-	-	-	31,0	34,9	37,7	40,1	43,8	45,6	47,8	51,1	57,3	56,2	67,0	64,9	77,2	73,6
Cooling total input current	A	-	-	-	-	56,0	60,0	60,0	69,0	80,0	78,0	88,0	85,0	93,0	106,0	108,0	115,0	124,0	123,0
EER	W/W	-	-	-	-	3,39	3,33	3,14	3,23	3,02	3,09	3,16	3,29	3,25	3,15	3,12	3,07	2,96	2,97
Water flow rate system side	l/h	-	-	-	-	18133	20029	20437	22332	22778	24316	26053	28900	32076	30475	35940	34279	39342	37605
Pressure drop system side	kPa	-	-	-	-	30	36	34	34	42	41	56	45	57	56	62	59	74	72

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRG - E

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	58,7	64,8	74,8	88,1	101,0	112,1	115,3	124,8	126,8	134,9	147,6	161,6	180,1	171,4	201,8	191,5	216,6	208,9
Input power	kW	18,7	21,5	23,3	27,6	31,6	35,8	38,6	40,7	45,6	46,8	49,3	52,1	59,4	58,0	70,9	67,4	81,8	77,1
Cooling total input current	A	31,0	41,0	45,0	54,0	55,0	60,0	61,0	70,0	81,0	79,0	87,0	85,0	95,0	106,0	111,0	116,0	129,0	126,0
EER	W/W	3,14	3,02	3,21	3,19	3,20	3,13	2,98	3,07	2,78	2,88	2,99	3,10	3,03	2,96	2,85	2,84	2,65	2,71
Water flow rate system side	l/h	10097	11156	12874	15166	17382	19311	19858	21482	21840	23238	25406	27822	31004	29499	34739	32965	37282	35953
Pressure drop system side	kPa	24	29	28	37	28	34	32	32	38	37	53	43	53	52	57	55	67	65

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRG - U

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	94,0	105,1	116,7	122,4	134,4	135,9	148,2	154,1	170,1	192,0	179,4	215,0	203,9	236,8	224,6
Input power	kW	-	-	-	26,8	30,6	34,4	36,1	38,2	41,9	42,9	46,5	49,5	57,5	56,2	66,4	63,6	75,7	72,1
Cooling total input current	A	-	-	-	53,0	57,0	61,0	58,0	68,0	78,0	76,0	87,0	83,0	92,0	106,0	106,0	114,0	120,0	121,0
EER	W/W	-	-	-	3,51	3,43	3,39	3,39	3,52	3,24	3,45	3,32	3,44	3,34	3,19	3,24	3,20	3,13	3,11
Water flow rate system side	l/h	-	-	-	16172	18095	20096	21081	23146	23408	25528	26524	29288	33054	30884	37012	35090	40762	38655
Pressure drop system side	kPa	-	-	-	24	30	28	37	38	46	36	43	47	53	58	66	59	80	72

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRG - N

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	59,7	66,0	76,0	92,0	103,0	114,9	120,1	131,5	132,9	144,6	148,5	163,6	188,0	175,9	209,5	199,0	227,4	218,5
Input power	kW	18,1	20,8	23,3	27,9	31,8	36,1	37,0	39,2	43,2	44,5	48,5	52,1	57,9	56,8	67,6	65,1	78,0	74,5
Cooling total input current	A	30,0	41,0	45,0	52,0	57,0	62,0	57,0	67,0	78,0	75,0	88,0	85,0	92,0	106,0	107,0	114,0	123,0	123,0
EER	W/W	3,29	3,17	3,26	3,30	3,24	3,18	3,25	3,35	3,07	3,25	3,06	3,14	3,25	3,10	3,10	3,06	2,92	2,93
Water flow rate system side	l/h	10270	11372	13087	15837	17726	19768	20680	22650	22893	24895	25579	28156	32351	30273	36062	34256	39138	37603
Pressure drop system side	kPa	25	31	29	23	28	26	36	36	44	34	41	44	50	56	63	57	75	68

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
SEER - 12/7 (EN14825:2018) with standard fans (1)																				
SEER	°	W/W	-	-	-	-	4,18	4,18	4,23	4,31	4,20	4,20	4,18	4,24	4,26	4,16	4,19	4,16	4,11	4,14
	A	W/W	-	-	-	-	4,36	4,42	4,30	4,47	4,26	4,42	4,22	4,47	4,43	4,30	4,40	4,25	4,22	4,15
	E	W/W	4,52	4,35	4,51	4,43	4,41	4,34	4,31	4,40	4,27	4,20	4,25	4,42	4,26	4,27	4,24	4,26	4,12	4,15
	L	W/W	4,25	4,17	4,39	4,28	4,19	4,12	4,22	4,17	4,20	4,11	4,18	4,16	4,12	4,18	4,11	4,18	-	-
	N	W/W	4,69	4,62	4,65	4,64	4,57	4,45	4,40	4,63	4,33	4,55	4,36	4,61	-	-	-	-	-	-
	U	W/W	-	-	-	4,63	4,60	4,64	4,38	4,54	4,31	4,58	4,38	4,68	-	-	-	-	-	-
Seasonal efficiency	°	%	-	-	-	-	164.1%	164.2%	166.2%	169.4%	164.9%	165.0%	164.1%	165.5%	167.3%	163.4%	164.5%	163.4%	161.4%	162.4%
	A	%	-	-	-	-	171.5%	173.7%	169.1%	175.8%	167.3%	173.7%	166.0%	175.8%	174.2%	168.9%	173.0%	166.9%	165.8%	162.9%
	E	%	177.7%	171.1%	177.5%	174.3%	173.3%	170.4%	169.3%	173.0%	167.9%	165.0%	166.8%	173.8%	167.4%	167.7%	166.6%	167.4%	161.9%	163.0%
	L	%	166.9%	163.6%	172.6%	168.2%	164.7%	161.7%	165.9%	163.7%	165.0%	161.3%	164.2%	163.4%	161.8%	164.0%	161.3%	164.1%	-	-
	N	%	184.5%	181.6%	183.1%	182.4%	179.8%	175.1%	173.0%	182.2%	170.0%	178.9%	171.5%	181.3%	-	-	-	-	-	-
	U	%	-	-	-	182.3%	180.8%	182.5%	172.0%	178.6%	169.5%	180.3%	172.1%	184.1%	-	-	-	-	-	-
SEER - (EN14825:2018) 12/7 with inverter fans (2)																				
SEER	°	W/W	-	-	-	-	4,30	4,30	4,36	4,44	4,33	4,32	4,31	4,37	4,38	4,28	4,32	4,29	4,23	4,26
	A	W/W	-	-	-	-	4,50	4,55	4,43	4,61	4,38	4,55	4,35	4,60	4,56	4,42	4,53	4,37	4,34	4,27
	E	W/W	-	-	-	-	4,54	4,46	4,44	4,53	4,40	4,33	4,37	4,55	4,38	4,40	4,37	4,39	4,25	4,27
	L	W/W	-	-	-	-	4,32	4,24	4,35	4,30	4,33	4,23	4,31	4,28	4,24	4,30	4,23	4,30	-	-
	N	W/W	-	-	-	-	4,71	4,59	4,54	4,77	4,46	4,69	4,49	4,75	4,63	4,48	4,59	4,48	4,37	4,33
	U	W/W	-	-	-	-	4,73	4,77	4,51	4,68	4,44	4,72	4,51	4,82	4,66	4,44	4,64	4,42	4,50	4,30
Seasonal efficiency	°	%	-	-	-	-	169.0%	169.1%	171.4%	174.4%	170.1%	169.9%	169.3%	171.6%	172.3%	168.3%	169.6%	168.5%	166.6%	167.3%
	A	%	-	-	-	-	176.8%	179.0%	174.2%	181.2%	172.2%	179.0%	170.9%	181.1%	179.4%	173.9%	178.1%	171.9%	170.6%	167.8%
	E	%	-	-	-	-	178.5%	175.5%	174.6%	178.2%	173.1%	170.0%	171.9%	179.1%	172.3%	172.9%	171.6%	172.4%	166.8%	167.8%
	L	%	-	-	-	-	169.7%	166.7%	171.1%	168.8%	170.1%	166.2%	169.2%	168.3%	166.6%	169.0%	166.2%	169.0%	-	-
	N	%	-	-	-	-	185.2%	180.4%	178.4%	187.8%	175.3%	184.4%	176.7%	186.8%	182.3%	176.3%	180.6%	176.2%	171.9%	170.0%
	U	%	-	-	-	-	186.3%	188.0%	177.3%	184.1%	174.6%	185.6%	177.4%	189.7%	183.5%	174.6%	182.6%	173.9%	177.0%	169.0%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																				
SEER	°	W/W	-	-	-	-	4,86	4,73	4,94	4,89	4,86	4,71	4,87	4,77	4,84	4,77	4,74	4,75	4,64	4,58
	A	W/W	-	-	-	-	5,13	5,04	5,13	5,12	5,09	4,79	4,96	5,08	5,06	5,01	4,98	4,88	4,78	4,61
	E	W/W	5,30	5,05	5,28	5,14	5,06	4,79	5,09	4,85	5,07	4,56	4,95	4,93	4,70	4,94	4,62	4,85	4,48	4,55
	L	W/W	4,85	4,73	5,05	4,94	4,72	4,46	4,94	4,60	4,89	4,44	4,91	4,68	4,48	4,75	4,45	4,73	-	-
	N	W/W	5,50	5,36	5,44	5,37	5,25	4,93	5,19	5,24	5,08	5,12	5,14	5,14	-	-	-	-	-	-
	U	W/W	-	-	-	5,49	5,41	5,29	5,23	5,19	5,14	4,98	5,21	5,31	-	-	-	-	-	-
Seasonal efficiency	°	%	-	-	-	-	191.3%	186.2%	194.5%	192.4%	191.2%	185.5%	191.7%	187.6%	190.4%	187.7%	186.6%	186.8%	182.7%	180.0%
	A	%	-	-	-	-	202.1%	198.5%	202.2%	201.7%	200.4%	188.5%	195.3%	200.0%	199.4%	197.2%	196.3%	192.2%	188.0%	181.2%
	E	%	208.8%	199.0%	208.0%	202.6%	199.3%	188.4%	200.5%	191.0%	199.6%	179.5%	195.1%	194.0%	184.8%	194.6%	181.6%	190.9%	176.3%	178.8%
	L	%	190.9%	186.1%	198.9%	194.7%	185.8%	175.4%	194.7%	181.0%	192.5%	174.4%	193.3%	184.0%	176.2%	187.0%	175.1%	186.1%	-	-
	N	%	217.1%	211.3%	214.4%	211.7%	207.1%	194.2%	204.4%	206.5%	200.3%	201.6%	202.7%	202.4%	-	-	-	-	-	-
	U	%	-	-	-	216.6%	213.5%	208.7%	206.3%	204.4%	202.4%	196.2%	205.5%	209.5%	-	-	-	-	-	-
SEER - 23/18 (EN14825: 2018) with inverter fans																				
SEER	°	W/W	-	-	-	-	4,99	4,86	5,09	5,02	5,00	4,85	5,02	4,90	4,97	4,91	4,88	4,88	4,78	4,71
	A	W/W	-	-	-	-	5,27	5,18	5,28	5,27	5,23	4,92	5,10	5,22	5,20	5,15	5,12	5,02	4,90	4,74
	E	W/W	-	-	-	-	5,20	4,92	5,24	4,99	5,22	4,69	5,10	5,07	4,82	5,09	4,61	4,99	4,74	4,68
	L	W/W	-	-	-	-	4,85	4,59	5,09	4,73	5,03	4,56	5,05	4,81	4,61	4,89	4,58	4,86	-	-
	N	W/W	-	-	-	-	5,40	5,07	5,34	5,39	5,23	5,26	5,29	5,28	5,23	5,17	5,10	5,11	4,84	4,94
	U	W/W	-	-	-	-	5,56	5,44	5,39	5,33	5,29	5,12	5,37	5,47	5,35	5,16	5,24	5,08	5,07	4,80
Seasonal efficiency	°	%	-	-	-	-	196.6%	191.5%	200.5%	197.8%	197.1%	190.8%	197.7%	193.0%	195.9%	193.2%	192.1%	192.3%	188.0%	185.2%
	A	%	-	-	-	-	207.8%	204.1%	208.3%	207.6%	206.2%	193.9%	200.9%	205.6%	205.0%	202.9%	201.8%	197.8%	193.1%	186.5%
	E	%	-	-	-	-	204.9%	193.6%	206.7%	196.4%	205.7%	184.7%	201.0%	199.6%	189.9%	200.4%	181.2%	196.5%	186.7%	184.1%
	L	%	-	-	-	-	191.1%	180.5%	200.7%	186.3%	198.3%	179.4%	199.1%	189.2%	181.2%	192.5%	180.2%	191.5%	-	-
	N	%	-	-	-	-	212.9%	199.7%	210.6%	212.4%	206.2%	207.3%	208.7%	208.1%	206.0%	203.7%	201.1%	201.3%	190.4%	194.5%
	U	%	-	-	-	-	219.5%	214.6%	212.6%	210.3%	208.4%	201.8%	211.6%	215.6%	210.8%	203.5%	206.7%	200.3%	199.6%	189.0%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																				
SEPR	°	W/W	-	-	-	-	5,78	5,60	6,35	5,79	6,38	5,73	6,34	5,66	6,07	6,34	5,81	6,03	5,78	5,94
	A	W/W	-	-	-	-	6,23	5,98	6,61	5,93	6,60	6,14	6,51	5,98	6,27	6,54	6,05	6,08	5,90	5,90
	E	W/W	6,66	6,39	6,59	6,52	6,30	6,03	6,47	5,93	6,55	5,79	6,41	6,01	6,13	6,44	5,85	6,06	5,21	5,87
	L	W/W	6,34	6,26	6,43	6,30	5,86	5,68	6,35	5,73	6,47	5,69	6,47	5,64	5,95	6,28	5,72	5,92	-	-
	N	W/W	6,87	6,70	6,81	6,88	6,47	6,14	6,58	6,20	6,54	6,21	6,57	6,17	-	-	-	-	-	-
	U	W/W	-	-	-	6,73	6,43	6,14	6,73	6,18	6,68	6,51	6,73	6,26	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Electric data																				
Maximum current (FLA)	°	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	A	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	E	A	41,6	49,9	56,9	67,6	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	L	A	40,2	49,9	55,5	67,6	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	-	-
	N	A	41,6	49,9	56,9	67,8	73,5	79,1	83,4	91,2	100,1	100,3	111,4	111,5	125,6	135,7	142,4	147,0	159,1	158,3
	U	A	-	-	-	67,8	73,5	79,1	83,4	91,2	100,1	100,3	111,4	111,5	125,6	135,7	142,4	147,0	159,1	158,3
Peak current (LRA)	°	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	A	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	E	A	161,9	145,0	171,3	210,6	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	L	A	160,5	145,0	169,9	210,6	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	-	-
	N	A	161,9	145,0	171,3	210,8	277,6	283,3	203,7	332,9	195,2	342,0	225,7	364,5	378,7	278,7	476,7	351,2	493,4	362,5
	U	A	-	-	-	210,8	277,6	283,3	203,7	332,9	195,2	342,0	225,7	364,5	378,7	278,7	476,7	351,2	493,4	362,5

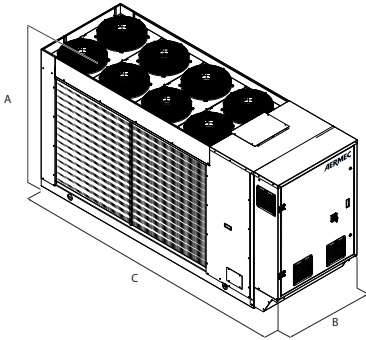
■ Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Compressor																			
Type	°A,E,N,U	type	Scroll																
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	-	-
Compressor regulation	°A,E,N,U	Type	On-Off																
	L	Type	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	-	-
Number	°A,E,N,U	no.	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	2	4
	L	no.	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	-	-
Circuits	°A,E,N,U	no.	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	1	2
	L	no.	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	-	-
Refrigerant	°A,E,N,U	type	R32																
	L	type	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	-	-
System side heat exchanger																			
Type	°A,E,N,U	type	Braze plate																
	L	type	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	Braze plate	-	-
Number	°A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
System side hydraulic connections																			
Sizes (in/out)	°A,E,N,U	Ø	2" 1/2																
	L	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	2" 1/2	2" 1/2	2" 1/2	-	-
Fan																			
Type	°A,E,N,U	type	Axial																
	L	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-
Number	°	no.	-	-	-	-	2	2	2	2	3	3	3	3	2	2	2	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	3	2	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	3	3	3	3	2	2	3	3	3
	L	no.	4	6	6	8	2	2	2	2	3	3	3	3	2	2	3	-	-
	N	no.	6	6	8	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	U	no.	-	-	-	2	2	2	3	3	3	3	3	3	3	3	3	3	3
Air flow rate	°	m³/h	-	-	-	-	36446	36446	34911	34911	54908	52714	52714	52714	34921	34921	33461	52703	52703
	A	m³/h	-	-	-	-	34908	34908	33464	33464	52724	50633	50633	50633	33452	33452	52701	50636	50636
	E	m³/h	20468	20468	27112	24667	26624	26624	25496	25496	40266	38637	38637	38637	25488	25488	40269	38639	38639
	L	m³/h	15291	20474	22212	27150	30672	30672	29318	29318	46243	44312	44312	44312	29318	29318	28069	44307	-
	N	m³/h	22189	22189	24655	26623	25495	25495	40274	40274	38634	52317	52317	52317	40269	40269	38640	52324	52324
	U	m³/h	-	-	-	34904	33469	33469	52712	52712	50637	66361	66361	66361	52718	52718	50633	66361	66361
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	-	-	-	-	85,1	85,6	84,2	85,9	84,8	86,1	84,9	87,5	87,6	86,5	88,3	88,1	89,4
	A	dB(A)	-	-	-	-	85,1	85,6	84,2	85,9	84,8	86,1	86,5	87,5	87,6	86,5	88,3	88,1	89,4
	E	dB(A)	73,0	73,5	74,3	74,5	81,3	82,1	76,1	82,7	76,7	83,1	77,8	84,2	84,4	78,0	85,6	83,6	87,3
	L	dB(A)	72,4	73,5	73,9	74,5	81,3	82,1	76,1	82,7	76,7	83,1	77,1	84,2	84,4	78,0	85,6	84,1	-
	N	dB(A)	73,0	73,9	74,3	80,3	81,3	82,1	76,9	83,6	77,5	84,0	77,8	84,2	84,4	78,7	89,3	88,5	90,1
	U	dB(A)	-	-	-	84,6	85,1	85,6	85,8	87,2	86,4	87,4	86,5	87,5	92,3	91,1	92,5	91,7	92,7

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Dimensions and weights																			
A	°	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
	A	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
	E	mm	1652	1658	1658	1658	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
	L	mm	1652	1652	1658	1658	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	-	-
	N	mm	1658	1658	1658	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
B	U	mm	-	-	-	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,N	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	-	-
	U	mm	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368
	A	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368
	E	mm	2818	3317	3317	3317	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368
	L	mm	2818	2818	3317	3317	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	-	-
	N	mm	3317	3317	3317	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368
	U	mm	-	-	-	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
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NRG 0282H-0804H

Reversible air/water heat pump

Cooling capacity 52,5 ÷ 212,0 kW
 Heating capacity 56,6 ÷ 214,4 kW

- High efficiency also at partial loads
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 60°C (for more details refer to the technical documentation).

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

■ The leak detector is supplied as per standard.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

CONTROL PCO⁵

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models with inverter fan or with DCPX. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the system architecture, consisting in an integrated and streamlined control of compressors and electronic valve.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
AER485P1	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Integrated hydronic kit: 00																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: I1, I2, I3, I4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: K1, K2, K3, K4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: P1, P2, P3, P4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: W1, W2, W3, W4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22

The accessory cannot be fitted on the configurations indicated with -

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E,L	DCPX145	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard

The accessory cannot be fitted on the configurations indicated with -

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°	DCPX146	DCPX146	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147
A	DCPX146	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
E,L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°L	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A,E	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604
E,L	DRENRG282	DRENRG302	DRENRG332	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°A,E,L	DRENRG652	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	DRENRG802	DRENRG804

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°A	-	-	-	-	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604
E,L	RIFNRG282	RIFNRG302	RIFNRG332	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°A,E,L	RIFNRG652	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	RIFNRG802	RIFNRG804

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRG
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804
8	Operating yeld
X	Electronic thermostatic expansion valve (1)
Z	Low temperature electronic thermostatic valve (2)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
11	Version (4)
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters
05	Storage tank with holes for heaters and single low head pump (5)
06	Storage tank with holes for heaters and pump low head + stand-by pump (5)
07	Storage tank with holes for heaters and single high head pump (5)
08	Storage tank with holes for heaters and pump high head + stand-by pump (5)
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to yxed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to yxed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter (6)
W2	Double low head pump + Storage tank + variable speed inverter (6)
W3	Single high head pump + Storage tank + variable speed inverter (6)
W4	Double high head pump + Storage tank + variable speed inverter (6)

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 18 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"

(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

(6) Not available with Low temperature electronic thermostatic valve "Z"

PERFORMANCE SPECIFICATIONS

NRG H°

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	93,7	103,4	114,4	117,5	127,3	127,8	141,4	156,4	175,2	169,8	196,0	190,4	215,2	209,1
Input power	kW	-	-	-	-	34,7	39,1	37,8	43,0	43,9	48,9	50,8	51,6	59,6	58,0	69,0	66,0	79,1	74,5
Cooling total input current	A	-	-	-	-	62,0	66,0	60,0	73,0	80,0	82,0	91,0	87,0	97,0	109,0	111,0	117,0	126,0	126,0
EER	W/W	-	-	-	-	2,70	2,65	3,03	2,73	2,90	2,61	2,78	3,03	2,94	2,93	2,84	2,89	2,72	2,81
Water flow rate system side	l/h	-	-	-	-	16141	17808	19683	20225	21912	22017	24335	26922	30168	29239	33727	32773	37044	35991
Pressure drop system side	kPa	-	-	-	-	31	38	20	34	24	40	25	48	60	36	60	40	72	49
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	-	-	-	-	99,6	108,8	118,2	125,6	132,1	137,6	146,9	162,6	183,1	176,7	203,0	195,8	222,4	214,4
Input power	kW	-	-	-	-	31,5	34,4	35,9	38,0	40,7	42,2	45,2	50,3	57,4	54,5	62,7	59,0	69,8	64,1
Heating total input current	A	-	-	-	-	59,0	62,0	59,0	68,0	79,0	75,0	88,0	87,0	96,0	109,0	105,0	112,0	117,0	116,0
COP	W/W	-	-	-	-	3,16	3,17	3,30	3,31	3,24	3,26	3,25	3,23	3,19	3,24	3,24	3,32	3,19	3,35
Water flow rate system side	l/h	-	-	-	-	17265	18855	20522	21779	22925	23855	25482	28203	31767	30659	35221	33974	38576	37206
Pressure drop system side	kPa	-	-	-	-	36	43	22	40	27	48	28	54	67	41	67	45	80	53

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HL

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	52,5	60,5	69,3	80,7	91,0	100,0	110,8	113,2	122,9	122,4	135,2	152,6	170,4	165,0	189,1	184,2	205,8	202,2
Input power	kW	20,2	23,0	25,4	30,1	35,2	39,6	38,4	44,3	45,0	50,9	53,2	52,2	61,2	59,1	71,5	67,9	82,7	77,3
Cooling total input current	A	33,0	42,0	47,0	57,0	60,0	65,0	59,0	72,0	79,0	82,0	92,0	84,0	95,0	107,0	111,0	116,0	128,0	126,0
EER	W/W	2,60	2,63	2,73	2,68	2,59	2,53	2,88	2,55	2,73	2,40	2,54	2,92	2,79	2,79	2,64	2,71	2,49	2,62
Water flow rate system side	l/h	9048	10428	11932	13896	15671	17215	19059	19485	21152	21086	23262	26277	29331	28417	32540	31692	35428	34793
Pressure drop system side	kPa	30	41	31	43	30	36	19	32	23	37	23	46	56	34	56	37	66	45
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	56,6	65,4	74,6	87,5	99,6	108,8	118,2	125,6	132,1	137,6	146,9	162,6	183,1	176,7	203,0	195,8	222,4	214,4
Input power	kW	17,4	20,2	22,3	26,5	31,5	34,4	35,9	38,0	40,7	42,2	45,2	50,3	57,4	54,5	62,7	59,0	69,8	64,1
Heating total input current	A	29,0	40,0	44,0	54,0	59,0	62,0	59,0	68,0	79,0	75,0	88,0	87,0	96,0	109,0	105,0	112,0	117,0	116,0
COP	W/W	3,26	3,24	3,35	3,30	3,16	3,17	3,30	3,31	3,24	3,26	3,25	3,23	3,19	3,24	3,24	3,32	3,19	3,35
Water flow rate system side	l/h	9816	11328	12928	15158	17265	18855	20522	21779	22925	23855	25482	28203	31767	30659	35221	33974	38576	37206
Pressure drop system side	kPa	37	48	38	51	36	43	22	40	27	48	28	54	67	41	67	45	80	53

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HA

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	96,4	106,6	115,8	122,0	128,8	133,3	146,8	160,1	178,0	170,7	199,5	191,8	219,8	212,0
Input power	kW	-	-	-	-	32,6	36,6	37,2	39,7	43,3	45,5	48,6	49,8	57,4	56,7	66,3	64,4	75,9	72,5
Cooling total input current	A	-	-	-	-	60,0	64,0	60,0	70,0	80,0	78,0	90,0	85,0	94,0	108,0	108,0	116,0	123,0	124,0
EER	W/W	-	-	-	-	2,95	2,91	3,11	3,07	2,97	2,93	3,02	3,21	3,10	3,01	3,01	2,98	2,90	2,93
Water flow rate system side	l/h	-	-	-	-	16583	18342	19918	21002	22155	22958	25273	27557	30631	29392	34336	33010	37829	36487
Pressure drop system side	kPa	-	-	-	-	23	28	17	29	21	35	28	40	49	33	54	39	66	48
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	-	-	-	-	103,0	113,7	119,7	126,6	133,9	138,9	155,5	162,3	181,1	175,3	200,6	195,0	219,9	213,7
Input power	kW	-	-	-	-	31,0	33,8	35,6	37,4	40,4	41,5	47,0	49,1	55,3	53,3	60,9	57,8	67,5	62,7
Heating total input current	A	-	-	-	-	59,0	61,0	58,0	68,0	79,0	75,0	91,0	86,0	93,0	107,0	103,0	110,0	114,0	114,0
COP	W/W	-	-	-	-	3,32	3,36	3,36	3,39	3,31	3,35	3,31	3,30	3,27	3,29	3,29	3,37	3,26	3,41
Water flow rate system side	l/h	-	-	-	-	17866	19723	20784	21964	23234	24088	26976	28153	31410	30409	34811	33832	38148	37079
Pressure drop system side	kPa	-	-	-	-	27	32	19	32	23	39	31	42	52	35	57	41	68	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HE

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	55,1	61,1	71,0	82,7	93,8	103,3	111,9	118,0	124,0	128,3	144,2	154,7	173,0	166,6	192,6	186,2	210,5	202,8
Input power	kW	19,3	22,3	24,4	28,6	33,0	37,4	38,2	40,8	44,9	46,7	48,9	50,9	58,9	57,3	68,8	65,7	79,3	75,4
Cooling total input current	A	32,0	42,0	47,0	56,0	58,0	62,0	60,0	69,0	80,0	78,0	87,0	82,0	93,0	106,0	109,0	114,0	125,0	123,0
EER	W/W	2,85	2,75	2,91	2,89	2,84	2,76	2,93	2,89	2,76	2,75	2,95	3,04	2,94	2,91	2,80	2,83	2,65	2,69
Water flow rate system side	l/h	9484	10522	12223	14246	16136	17773	19250	20314	21332	22097	24814	26647	29783	28680	33149	32040	36227	34901
Pressure drop system side	kPa	20	24	24	33	22	26	16	27	19	32	26	38	47	31	51	36	60	44
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	58,8	65,4	76,6	88,8	103,0	113,7	119,7	126,6	133,9	138,9	155,5	162,3	181,1	175,3	200,6	195,0	219,9	213,7
Input power	kW	17,2	19,7	22,5	26,5	31,0	33,8	35,6	37,4	40,4	41,5	47,0	49,1	55,3	53,3	60,9	57,8	67,5	62,7
Heating total input current	A	30,0	39,0	45,0	54,0	59,0	61,0	58,0	68,0	79,0	75,0	91,0	86,0	93,0	107,0	103,0	110,0	114,0	114,0
COP	W/W	3,42	3,32	3,40	3,35	3,32	3,36	3,36	3,39	3,31	3,35	3,31	3,30	3,27	3,29	3,29	3,37	3,26	3,41
Water flow rate system side	l/h	10207	11335	13280	15399	17866	19723	20784	21964	23234	24088	26976	28153	31410	30409	34811	33832	38148	37079
Pressure drop system side	kPa	23	28	29	39	27	32	19	32	23	39	31	42	52	35	57	41	68	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA - STANDARD/INVERTER FANS

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Fans: °																			
Cooling capacity with low leaving water temp (UE n° 2016/2281)																			
SEER	°	W/W	-	-	-	-	3,92	3,84	3,97	4,00	3,83	3,94	3,88	4,17	4,06	3,87	3,95	3,92	3,82
	A	W/W	-	-	-	-	4,21	4,14	4,07	4,34	4,01	4,24	4,10	4,40	4,32	4,14	4,31	4,17	4,12
	E	W/W	4,40	4,32	4,37	4,33	4,26	4,13	4,03	4,29	3,97	4,10	4,06	4,36	4,21	4,10	4,20	4,13	4,07
	L	W/W	4,14	4,03	4,22	4,07	3,98	3,89	3,94	4,01	3,80	3,89	3,84	4,12	4,00	3,84	3,91	3,88	3,77
ηsc	°	%	-	-	-	-	154%	151%	156%	157%	150%	155%	152%	164%	160%	152%	155%	154%	150%
	A	%	-	-	-	-	165%	163%	160%	171%	157%	167%	161%	173%	170%	162%	169%	164%	162%
	E	%	173%	170%	172%	170%	167%	162%	158%	169%	156%	161%	160%	172%	166%	161%	165%	162%	160%
	L	%	163%	158%	166%	160%	156%	153%	155%	157%	149%	153%	151%	162%	157%	150%	153%	152%	148%
Fans: J																			
Cooling capacity with low leaving water temp (UE n° 2016/2281)																			
SEER	°	W/W	-	-	-	-	4,04	3,96	4,10	4,12	3,96	4,06	4,00	4,30	4,19	3,99	4,07	4,04	3,94
	A	W/W	-	-	-	-	4,33	4,26	4,20	4,47	4,13	4,37	4,23	4,54	4,45	4,26	4,43	4,29	4,25
	E	W/W	4,45	4,36	4,41	4,37	4,38	4,25	4,16	4,42	4,09	4,22	4,19	4,49	4,34	4,22	4,33	4,25	4,20
	L	W/W	4,18	4,07	4,26	4,10	4,10	4,01	4,06	4,12	3,92	4,01	3,96	4,25	4,13	3,95	4,03	4,00	3,89
ηsc	°	%	-	-	-	-	159%	155%	161%	162%	155%	159%	157%	169%	164%	157%	160%	158%	155%
	A	%	-	-	-	-	170%	168%	165%	176%	162%	172%	166%	178%	175%	167%	174%	169%	167%
	E	%	175%	171%	174%	172%	172%	167%	163%	174%	161%	166%	164%	177%	171%	166%	170%	167%	165%
	L	%	164%	160%	167%	161%	161%	157%	159%	162%	154%	157%	155%	167%	162%	155%	158%	157%	152%

ENERGY DATA - STANDARD/INVERTER FANS (35 °C)

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Fans: °																			
Performance in average ambient conditions (average) - 35 °C (1)																			
SCOP	°	-	-	-	-	-	3,50	3,55	3,36	3,55	3,33	3,61	3,32	3,47	3,57	3,23	3,54	3,32	3,41
	A	-	-	-	-	-	3,59	3,69	3,43	3,69	3,42	3,70	3,38	3,59	3,65	3,33	3,66	3,42	3,56
	E	4,06	4,00	4,02	3,91	3,59	3,69	3,43	3,69	3,42	3,70	3,38	3,59	3,65	3,33	3,66	3,42	3,56	3,44
	L	3,91	3,86	3,87	3,83	3,50	3,55	3,36	3,55	3,33	3,61	3,32	3,47	3,57	3,23	3,54	3,32	3,41	3,36
ηsh	°	%	-	-	-	-	135%	139%	131%	139%	130%	141%	130%	135%	139%	126%	139%	130%	134%
	A	%	-	-	-	-	141%	145%	134%	145%	134%	145%	132%	141%	143%	130%	143%	134%	140%
	E	%	159%	157%	158%	154%	141%	145%	134%	145%	134%	145%	132%	141%	143%	130%	143%	134%	140%
	L	%	153%	151%	152%	150%	135%	139%	131%	139%	130%	141%	130%	135%	139%	126%	139%	130%	134%
Efficiency energy class	°A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	E,L	A+	A+	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fans: J																			
Performance in average ambient conditions (average) - 35 °C (1)																			
SCOP	°	-	-	-	-	-	3,61	3,66	3,53	3,66	3,49	3,71	3,49	3,57	3,68	3,42	3,65	3,52	3,56
	A	-	-	-	-	-	3,70	3,80	3,60	3,80	3,59	3,81	3,59	3,70	3,76	3,53	3,77	3,63	3,67
	E	4,10	4,04	4,06	3,99	3,70	3,80	3,60	3,80	3,59	3,81	3,59	3,70	3,76	3,53	3,77	3,63	3,67	3,64
	L	3,95	3,90	3,91	3,91	3,61	3,66	3,53	3,66	3,49	3,71	3,49	3,57	3,68	3,42	3,65	3,52	3,52	3,56
ηsh	°	%	-	-	-	-	141%	143%	138%	143%	137%	146%	136%	140%	144%	134%	143%	138%	138%
	A	%	-	-	-	-	145%	149%	141%	149%	141%	149%	141%	145%	147%	138%	148%	142%	144%
	E	%	161%	159%	159%	157%	145%	149%	141%	149%	141%	149%	141%	145%	147%	138%	148%	142%	144%
	L	%	155%	153%	153%	153%	141%	143%	138%	143%	137%	146%	136%	140%	144%	134%	143%	138%	139%
Efficiency energy class	°A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	E,L	A+	A+	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ENERGY DATA - STANDARD/INVERTER FANS (55°C)

Size		0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0802
Fans: °													
Performance in average ambient conditions (average) - 55 °C (1)													
SCOP	°	-	-	-	-	2,84	2,94	2,93	3,00	2,84	2,84	2,84	-
	A	-	-	-	-	2,91	3,05	3,03	3,04	2,93	2,89	2,92	2,84
	E	3,13	3,10	3,11	3,06	2,91	3,05	3,03	3,04	2,93	2,89	2,92	2,84
	L	3,05	3,03	3,03	3,01	2,84	2,94	2,93	3,00	2,84	2,84	2,84	-
ηsh	°	%	-	-	-	111%	115%	114%	117%	111%	111%	111%	-
	A	%	-	-	-	113%	119%	118%	119%	114%	113%	114%	110%
	E	%	122%	121%	122%	119%	113%	119%	118%	119%	114%	113%	114%
	L	%	119%	118%	118%	117%	111%	115%	114%	117%	111%	111%	-
Efficiency energy class	°;A	-	-	-	-	-	-	-	-	-	-	-	-
	E;L	A++	A++	A++	-	-	-	-	-	-	-	-	-

Fans: J

Performance in average ambient conditions (average) - 55 °C (1)														
SCOP	°	-	-	-	-	2,92	3,02	3,02	3,09	2,93	2,93	2,93	-	
	A	-	-	-	-	2,99	3,13	3,12	3,13	3,02	2,98	3,01	2,92	
	E	3,16	3,12	3,14	3,12	2,99	3,13	3,12	3,13	3,02	2,98	3,01	2,92	
	L	3,08	3,06	3,06	3,07	2,92	3,02	3,02	3,09	2,93	2,93	2,93	-	
ηsh	°	%	-	-	-	114%	118%	118%	120%	114%	114%	114%	-	
	A	%	-	-	-	117%	122%	122%	122%	118%	116%	117%	114%	
	E	%	123%	122%	123%	122%	117%	122%	122%	122%	118%	116%	117%	114%
	L	%	120%	119%	119%	120%	114%	118%	118%	120%	114%	114%	114%	-
Efficiency energy class	°,A	-	-	-	-	-	-	-	-	-	-	-	-	
	E,L	A++	A++	A++	-	-	-	-	-	-	-	-	-	

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804	
Electric data																				
Maximum current (FLA)	°	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	A	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	E	A	41,6	49,9	56,9	67,6	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	L	A	40,2	49,9	55,5	67,6	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
Peak current (LRA)	°	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	A	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	E	A	161,9	145,0	171,3	210,6	277,6	283,3	200,8	330,0	192,3	339,1	225,7	375,7	375,7	275,7	473,7	348,2	490,4	359,5
	L	A	160,5	145,0	169,9	210,6	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5

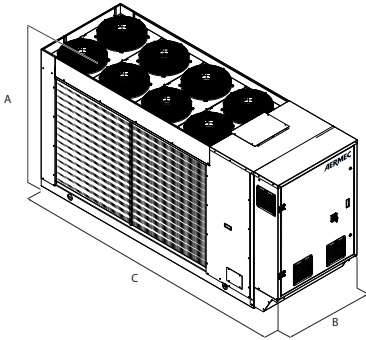
Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Compressor																				
Type	°A,E,L	type											Scroll							
Compressor regulation	°A,E,L	Type											On-Off							
Number	°A,E,L	no.	2	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	2	4
Circuits	°A,E,L	no.	1	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	1	2
Refrigerant	°A,E,L	type	R32																	
System side heat exchanger																				
Type	°A,E,L	type	Braze plate																	
Number	°A,E,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fan																				
Type	°A,E,L	type	Axial																	
Number	°	no.	-	-	-	-	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	A	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	E	no.	6	6	8	8	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	2	2	2	3	3	3	3	3	3	3
Air flow rate	°	m³/h	-	-	-	-	42831	42819	40170	41067	40170	41067	38299	62024	62022	60681	62022	60681	62022	60681
	A	m³/h	-	-	-	-	41097	41097	38299	39483	38299	39483	60681	59734	59721	57995	59721	57995	59721	57995
	E	m³/h	21224	21224	28177	25805	31035	31035	28870	29848	28870	29848	45978	45211	45211	43804	45211	43804	45211	43804
	L	m³/h	15552	21229	22716	28186	32592	32592	30388	31000	30388	31000	28869	47029	47029	45980	47029	45980	47029	45980
Sound data calculated in cooling mode (1)																				
Sound power level	°	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	87,1	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	A	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	88,8	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	E	dB(A)	73,6	74,1	74,9	75,1	82,8	83,5	76,6	83,9	77,3	84,3	78,4	85,5	85,6	78,6	86,7	84,6	87,3	86,2
	L	dB(A)	73,0	74,1	74,5	75,1	82,8	83,5	76,6	83,9	77,3	84,3	78,4	85,5	85,6	78,6	86,7	84,6	87,3	86,2

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Dimensions and weights																			
A	°	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900
	A	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900
	E	mm	1652	1658	1658	1658	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900
	L	mm	1652	1652	1658	1658	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900
B	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E _L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	°	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368
	A	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368
C	E	mm	2818	3317	3317	3317	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368
	L	mm	2818	2818	3317	3317	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368

Aermec reserves the right to make any modifications deemed necessary.
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NRGI 151-602

Air-water chiller

Cooling capacity 31.0 ÷ 132.2 kW

- High efficiency also at partial loads
- High modulation capacity
- Continuous modulation of the cooling capacity
- Compressors and fans with Inverter
- Reduced amount of refrigerant
- Stable temperature control of the outlet water



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with streamlined scroll compressors used with R32 gas.

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve**.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.

Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.

This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for

— High seasonal efficiency

- steady and precise modulation of the chilling demand
- The stability of the outlet water temperature.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Inverter fans

All of the units are equipped as per standard with high-efficiency inverter-controlled axial fans which provide:

- Steady air flow rate adjustment
- Low consumption and reduced sound level at partial loads
- Operation with low outdoor air temperatures
- Precise condensation control for an extended operating range.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

- **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

CONTROL PCO⁵

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** this function can be activated in all the units, to optimise unit operation at any point by continuously modulating the fan speed. In addition, the use of inverter fans allows increased energy efficiency with partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the system architecture, consisting in an integrated and streamlined control of compressors and electronic valves.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	151	201	281	302	332	352	382	502	552	602
AER485P1	A,E	*	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	151	201	281	302	332	352	382	502	552	602
Integrated hydronic kit: 00										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: I1, I2, I3, I4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: K1, K2, K3, K4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: P1, P2, P3, P4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: W1, W2, W3, W4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	151	201	281	302	332	352	382	502	552	602
A,E	GP3	GP4	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	151	201	281	302	332	352	382	502	552	602
A,E	-	-	-	DRENRGI302	DRENRGI332	DRENRGI352	DRENRGI382	DRENRGI502	DRENRGI552	DRENRGI602

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	NRGI
5,6,7	Size 151, 201, 281, 302, 332, 352, 382, 502, 552, 602
8	Operating yield
X	Electronic thermostatic expansion valve (1)
9	Model
°	Cooling only
10	Heat recovery
°	Without heat recovery
D	With desuperheater (2)
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
J	Inverter
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (3)

Field	Description
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to fixed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter
W2	Double low head pump + Storage tank + variable speed inverter
W3	Single high head pump + Storage tank + variable speed inverter
W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.

(2) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRGI - A

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	39,2	52,6	58,2	69,4	77,7	83,2	93,2	103,3	114,0	132,2
Input power	kW	11,8	15,2	17,5	20,8	23,3	25,6	27,6	31,4	35,1	39,1
Cooling total input current	A	18,0	23,0	26,0	37,0	41,0	46,0	43,0	49,0	53,0	60,0
EER	W/W	3,31	3,47	3,32	3,33	3,34	3,25	3,37	3,29	3,24	3,38
Water flow rate system side	l/h	6746	9067	10028	11960	13388	14335	16031	17775	19616	22750
Pressure drop system side	kPa	18	33	40	35	44	50	24	23	28	29

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRGI - E

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	31,0	40,1	46,4	61,7	70,1	75,6	84,9	91,3	101,8	119,6
Input power	kW	8,9	11,0	13,1	17,9	20,2	22,5	24,6	26,9	30,8	34,2
Cooling total input current	A	13,0	17,0	19,0	32,0	36,0	41,0	39,0	43,0	47,0	53,0
EER	W/W	3,49	3,63	3,55	3,45	3,46	3,36	3,45	3,39	3,31	3,50
Water flow rate system side	l/h	5326	6900	7994	10624	12066	13021	14607	15705	17509	20576
Pressure drop system side	kPa	11	19	25	27	35	41	20	18	22	24

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY DATA

Size			151	201	281	302	332	352	382	502	552	602
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A	W/W	204.4%	209.8%	211.9%	198.4%	199.7%	205.7%	210.0%	211.4%	204.3%	210.0%
	E	W/W	206.0%	211.5%	213.6%	200.0%	201.3%	207.3%	211.8%	213.1%	206.0%	211.7%
Seasonal efficiency	A	%	5.19	5.32	5.37	5.04	5.07	5.22	5.33	5.36	5.18	5.33
	E	%	5.23	5.36	5.42	5.08	5.11	5.26	5.37	5.40	5.23	5.37
SEER - 23/18 (EN14825: 2018) with inverter fans												
SEER	A	W/W	250.9%	254.9%	250.2%	299.5%	228.4%	232.4%	245.2%	245.3%	234.6%	241.5%
	E	W/W	257.9%	266.8%	260.3%	234.2%	230.4%	233.4%	249.4%	249.8%	237.1%	245.4%
Seasonal efficiency	A	%	6.35	6.45	6.33	5.81	5.79	5.89	6.21	6.21	5.94	6.11
	E	%	6.52	6.75	6.58	5.93	5.84	5.91	6.31	6.32	6.00	6.21
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A	W/W	7,10	7,60	7,50	7,10	7,30	7,40	7,10	7,10	6,50	6,50
	E	W/W	7,10	7,50	7,40	7,20	7,40	7,40	7,10	7,20	6,60	6,60

(1) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			151	201	281	302	332	352	382	502	552	602
Electric data												
Maximum current (FLA)	A,E	A	23,8	31,6	34,9	47,6	52,8	58,1	60,1	68,8	74,4	87,5
Peak current (LRA)	A,E	A	30,3	43,0	43,0	142,8	167,1	201,1	174,4	211,8	278,6	329,2

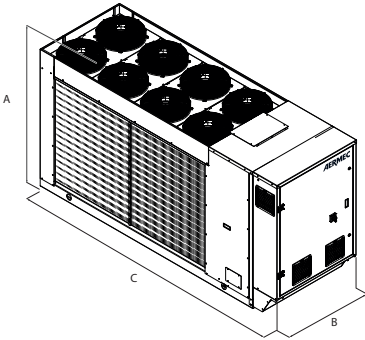
■ Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			151	201	281	302	332	352	382	502	552	602
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	Inverter	Inverter	Inverter	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	A,E	type	R32									
System side heat exchanger												
Type	A,E	type	Brazed plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Inverter fan												
Type	A,E	type	Axial									
Number	A,E	no.	4	6	6	8	8	8	2	2	2	3
Air flow rate	A	m³/h	16669	24469	24476	30793	28649	28662	36174	36174	36149	54601
	E	m³/h	14488	21255	21255	26704	24966	24966	26850	26850	26781	40488
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	81,8	84,6	85,9	82,2	85,0	85,1	85,4	86,5	87,7	88,1
	E	dB(A)	79,3	82,8	83,3	80,9	81,3	81,7	82,8	83,0	85,4	85,5
Sound pressure level (10 m)	A	dB(A)	50,0	52,7	54,1	50,3	53,2	53,3	53,5	54,6	55,8	56,1
	E	dB(A)	47,6	51,0	51,4	49,0	49,5	49,8	50,9	51,1	53,5	53,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			151	201	281	302	332	352	382	502	552	602
Dimensions and weights												
A	A,E	mm	1652	1652	1652	1652	1652	1652	1907	1907	1907	1900
B	A,E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A,E	mm	2873	3372	3372	3372	3372	3372	3623	3623	3623	4373

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NRGI 151H-602H

Reversible air/water heat pump

Cooling capacity 28.9 ÷ 123.7 kW
Heating capacity 31.6 ÷ 133.9 kW



- High efficiency also at partial loads
- High modulation capacity
- Continuous modulation of the cooling capacity
- Compressors and fans with Inverter
- Reduced amount of refrigerant
- Stable temperature control of the outlet water



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heat-ed water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

These are outdoor units with streamlined scroll compressors used with R32 gas.

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve**.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49 °C in summer. Hot water production up to 60 °C

For more information refer to the selection program and to the dedicated documentation.

High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.

Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.

This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for

- High seasonal efficiency
- steady and precise modulation of the chilling demand
- The stability of the outlet water temperature.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Inverter fans

All of the units are equipped as per standard with high-efficiency inverter-controlled axial fans which provide:

- Steady air flow rate adjustment
- Low consumption and reduced sound level at partial loads
- Operation with low outdoor air temperatures
- Precise condensation control for an extended operating range.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

CONTROL PCO⁵

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the system architecture, consisting in an integrated and streamlined control of compressors and electronic valves.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	151	201	281	302	332	352	382	502	552	602
AER485P1	A,E	*	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	151	201	281	302	332	352	382	502	552	602
Integrated hydronic kit: 00										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: I1, I2, I3, I4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: K1, K2, K3, K4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: P1, P2, P3, P4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: W1, W2, W3, W4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	151	201	281	302	332	352	382	502	552	602
A,E	GP3	GP4	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	151	201	281	302	332	352	382	502	552	602
A,E	-	-	-	DRENRGI302	DRENRGI332	DRENRGI352	DRENRGI382	DRENRGI502	DRENRGI552	DRENRGI602

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	NRGI
5,6,7	Size 151, 201, 281, 302, 332, 352, 382, 502, 552, 602
8	Operating yeld
X	Electronic thermostatic expansion valve (1)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (2)
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
J	Inverter
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (3)

Field	Description
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to yxed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to yxed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter
W2	Double low head pump + Storage tank + variable speed inverter
W3	Single high head pump + Storage tank + variable speed inverter
W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.

(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRGI - HA

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C											
Cooling capacity	kW	36,5	48,9	54,2	64,1	72,1	77,3	87,0	95,7	106,0	123,7
Input power	kW	12,1	15,6	18,1	21,5	23,9	26,3	28,4	32,3	36,1	39,1
Cooling total input current	A	18,0	24,0	27,0	38,0	42,0	47,0	44,0	51,0	55,0	60,0
EER	W/W	3,00	3,13	3,00	2,98	3,02	2,94	3,06	2,96	2,93	3,16
Water flow rate system side	l/h	6280	8416	9328	11028	12414	13315	14969	16471	18246	21290
Pressure drop system side	kPa	15	28	34	28	35	41	19	18	23	25
Heating performance 40 °C / 45 °C											
Heating capacity	kW	39,6	53,4	59,0	69,9	78,1	84,1	94,7	104,8	115,7	133,9
Input power	kW	11,6	15,4	17,3	20,3	23,0	24,9	29,4	32,2	34,6	40,6
Heating total input current	A	18,0	24,0	27,0	38,0	42,0	46,0	46,0	52,0	54,0	64,0
COP	W/W	3,42	3,46	3,42	3,45	3,40	3,37	3,22	3,25	3,34	3,30
Water flow rate system side	l/h	6869	9260	10228	12113	13544	14563	16431	18188	20074	23220
Pressure drop system side	kPa	18	33	40	34	42	49	23	22	27	29

NRGI - HE

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	28,9	37,0	42,6	56,7	64,9	70,1	78,8	84,0	94,0	111,3
Input power	kW	9,1	11,4	13,5	18,4	20,8	23,2	25,3	27,6	31,6	34,1
Cooling total input current	A	13,0	17,0	20,0	33,0	36,0	41,0	39,0	44,0	49,0	53,0
EER	W/W	3,17	3,25	3,15	3,07	3,12	3,03	3,12	3,04	2,97	3,26
Water flow rate system side	l/h	4974	6363	7326	9764	11165	12069	13554	14451	16179	19152
Pressure drop system side	kPa	10	16	21	22	29	33	16	14	18	20
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	31,6	41,2	47,5	62,3	70,4	76,5	87,0	93,3	104,4	122,0
Input power	kW	9,1	11,8	13,6	18,0	20,3	22,2	27,0	28,5	31,2	36,8
Heating total input current	A	15,0	20,0	22,0	35,0	38,0	43,0	43,0	47,0	50,0	59,0
COP	W/W	3,49	3,49	3,49	3,47	3,47	3,44	3,23	3,27	3,35	3,32
Water flow rate system side	l/h	5484	7151	8247	10814	12215	13253	15103	16186	18126	21177
Pressure drop system side	kPa	12	20	26	27	34	40	20	18	22	24

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		151	201	281	302	332	352	382	502	552	602
Cooling capacity with low leaving water temp (UE n° 2016/2281)											
η _{sc}	A	%	184%	195%	192%	182%	187%	184%	189%	191%	201%
	E	%	185%	197%	194%	183%	188%	186%	190%	192%	202%
SEER	A	W/W	4,67	4,96	4,89	4,62	4,74	4,68	4,79	4,84	5,09
	E	W/W	4,71	5,00	4,93	4,66	4,78	4,72	4,83	4,88	5,13
Performance in average ambient conditions (average) - 35 °C (1)											
Efficiency energy class	A,E		A++	A++	A++	A++	A++	-	-	-	-
P _{designh}	A	kW	34	46	51	61	67	72	81	90	100
	E	kW	27	35	41	54	61	66	75	80	90
SCOP	A		4,24	4,32	4,25	4,40	4,28	4,35	4,27	4,25	4,13
	E		4,27	4,35	4,29	4,44	4,31	4,38	4,30	4,29	4,17
η _{sh}	A	%	167%	170%	167%	173%	168%	171%	168%	167%	162%
	E	%	168%	171%	168%	174%	170%	172%	169%	169%	164%
Performance in average ambient conditions (average) - 55 °C (2)											
Efficiency energy class	A,E		A++	A++	A++	A++	A++	-	-	-	-
P _{designh}	A	kW	35	48	53	62	69	73	83	92	102
	E	kW	28	37	43	55	62	67	76	82	92
SCOP	A		3,31	3,40	3,38	3,37	3,41	3,49	3,28	3,35	3,35
	E		3,32	3,39	3,37	3,38	3,41	3,48	3,39	3,37	3,36
η _{sh}	A	%	129%	133%	132%	132%	134%	137%	128%	131%	131%
	E	%	130%	133%	132%	132%	133%	136%	132%	132%	128%

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size		151	201	281	302	332	352	382	502	552	602
Electric data											
Maximum current (FLA)	A,E	A	23,8	31,6	34,9	47,6	52,8	58,1	60,1	68,8	74,4
Peak current (LRA)	A	A	30,3	43,0	43,0	142,8	167,1	201,1	174,4	211,8	278,6
	E	A	30,3	43,0	43,0	136,2	160,5	194,5	166,6	204,0	270,8

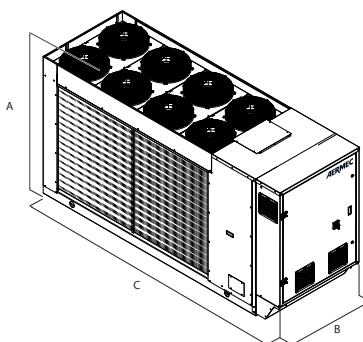
Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			151	201	281	302	332	352	382	502	552	602
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	Inverter	Inverter	Inverter	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	A,E	type	R32									
System side heat exchanger												
Type	A,E	type	Brazed plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Inverter fan												
Type	A,E	type	Axial									
Number	A,E	no.	4	6	6	8	8	8	2	2	2	3
Air flow rate	A	m³/h	16896	24887	24891	31613	29660	29659	36859	36859	36859	55733
	E	m³/h	14667	21591	21591	27379	25774	25774	27308	27308	27307	41430
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	81,8	84,6	86,0	82,2	85,0	85,1	85,4	86,5	87,8	88,1
	E	dB(A)	79,3	82,8	83,3	80,9	81,3	81,7	82,8	83,0	85,4	85,6

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size	151	201	281	302	332	352	382	502	552	602
Dimensions and weights										
A	A,E	mm	1652	1652	1652	1652	1652	1907	1907	1907
B	A,E	mm	1100	1100	1100	1100	1100	1100	1100	1100
C	A,E	mm	2873	3372	3372	3372	3372	3623	3623	4373

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRL 0280-0750

Air-water chiller

Cooling capacity 56 ÷ 194 kW

- Low noise levels in silenced versions
- High efficiency also at partial loads
- Night mode
- Compact dimensions



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A** High efficiency
- E** Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46 °C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort

in the evenings, and a high efficiency in the time of greater load.

Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

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.

C-TOUCH: 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
AERNET	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
PGD1	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
C-TOUCH	A	*	*	*	*	*	*	*	*	*	*
	E					*	*	*	*	*	*

Condensation control temperature

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Fans: °										
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64
E	Inverter	Inverter	Inverter	Inverter	As standard	As standard	As standard	As standard	As standard	As standard
Fans: M										
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX65	DCPX65
E	DCPX63	DCPX63	DCPX63	DCPX63	As standard	As standard	As standard	As standard	As standard	As standard

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT23
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT23
Integrated hydronic kit: P1, P2, P3, P4										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT23

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Power supply: °										
A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)
E	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53
E	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRL
4,5,6,7	Size 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Low temperature mechanic thermostatic valve (2)
9	Model
°	Cooling only
C	Motocondensing unit
10	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
T	With total recovery
11	Version
A	High efficiency
E	Silenced high efficiency (4)
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard (5)
J	Inverter (6)
M	Oversized (7)
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
1	220V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (8)
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from 4 °C ÷ 18 °C for version "E", -10 °C for the others versions

(3) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35 °C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(4) The size up 0280 ÷ 0350 are only available in the silenced versions "E" with inverter fans

(5) As standard in sizes from 0500 ÷ 0750

(6) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.

(7) Available only for size from 0280 to 0350

(8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRL - A

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	97,7	103,7	128,7	142,7	162,7	194,6
Input power	kW	-	-	-	-	30,7	34,8	40,8	45,4	53,3	63,3
Cooling total input current	A	-	-	-	-	55,0	60,0	71,0	77,0	90,0	113,0
EER	W/W	-	-	-	-	3,19	2,98	3,15	3,14	3,05	3,07
Water flow rate system side	l/h	-	-	-	-	16838	17868	22164	24569	28005	33503
Pressure drop system side	kPa	-	-	-	-	44	49	54	60	68	88

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRL - E

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	56,8	64,8	73,8	82,8	89,8	94,8	116,7	128,7	149,7	179,6
Input power	kW	17,1	19,7	22,1	25,5	33,5	37,1	44,9	52,3	57,4	69,2
Cooling total input current	A	30,0	34,0	37,0	45,0	60,0	64,0	78,0	89,0	97,0	120,0
EER	W/W	3,33	3,29	3,34	3,24	2,68	2,55	2,60	2,46	2,61	2,60
Water flow rate system side	l/h	9793	11168	12714	14260	15463	16322	20102	22164	25772	30926
Pressure drop system side	kPa	43	39	35	44	37	41	44	49	58	75

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRL - C

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Model: C											
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	A	kW	-	-	-	101,0	107,0	133,0	147,0	168,0	201,0
	E	kW	59,0	67,0	76,0	85,0	93,0	98,0	121,0	133,0	185,0
Input power	A	kW	-	-	-	30,5	34,5	40,5	45,0	52,8	62,5
	E	kW	17,0	19,6	22,0	25,3	33,4	37,0	44,7	52,1	68,6
Input current	A	A	-	-	-	56,0	61,0	72,0	78,0	91,0	110,0
	E	A	35,0	39,0	43,0	49,0	71,0	65,0	79,0	90,0	121,0
EER	A	W/W	-	-	-	3,31	3,10	3,28	3,27	3,18	3,22
	E	W/W	3,47	3,42	3,45	3,36	2,78	2,65	2,71	2,55	2,70

(1) Evaporating temperature 5 °C, External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEER - 12/7 (EN14825:2018) with standard fans (1)											
SEER	A	W/W	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)											
SEER	A	W/W	-	-	-	4,34	4,19	4,73	4,71	4,59	4,57
	E	W/W	4,55	4,70	4,62	4,47	4,32	4,18	4,67	4,61	4,51
Seasonal efficiency	A	%	-	-	-	170,7%	164,6%	186,2%	185,2%	180,5%	179,9%
	E	%	178,9%	184,9%	181,6%	175,9%	169,7%	164,0%	183,8%	181,3%	177,2%
SEPR - (EN14825: 2018) High temperature with standard fans (3)											
SEPR	A	W/W	-	-	-	6,05	5,66	5,94	5,91	5,74	5,74
	E	W/W	5,81	5,94	5,85	5,66	5,62	5,34	5,76	5,71	5,55

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

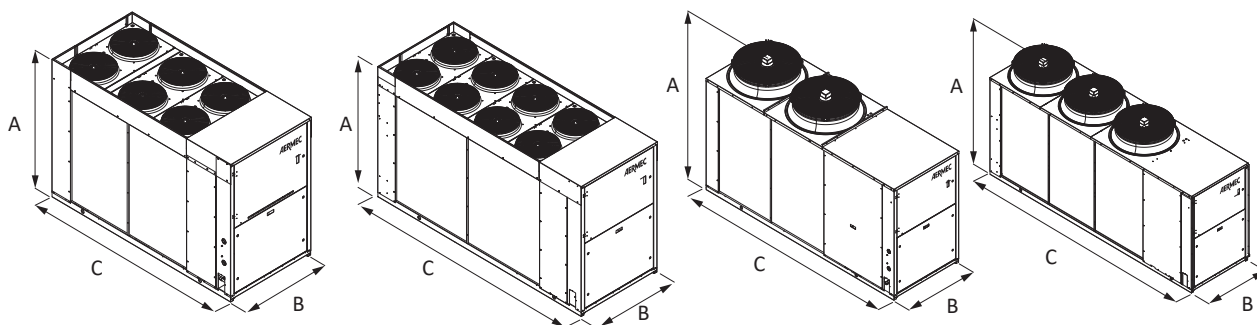
Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electric data											
Maximum current (FLA)	A	A	-	-	-	76,0	81,0	100,0	112,0	122,0	320,0
	E	A	46,0	53,0	58,0	63,0	76,0	76,0	100,0	112,0	144,0
Peak current (LRA)	A	A	-	-	-	214,0	220,0	232,0	243,0	261,0	144,0
	E	A	155,0	184,0	190,0	200,0	214,0	232,0	243,0	261,0	320,0

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Compressor												
Type	A,E	type					Scroll					
Compressor regulation	A,E	Type					On-Off					
Number	A,E	no.	2	2	2	2	3	3	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R410A									
System side heat exchanger												
Type	A,E	type	Brazed plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections												
Connections (in/out)	A,E	Type	Grooved joints									
Sizes (in/out)	A,E	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	3"
Fan												
Type	A	type	-	-	-	-	Axial	Axial	Axial	Axial	Axial	Axial
	E	type	Axial									
Fan motor	A	type	-	-	-	-	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut
	E	type	Inverter	Inverter	Inverter	Inverter	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut	Asynchronous with phase cut
Number	A	no.	-	-	-	-	2	2	2	2	3	3
	E	no.	6	6	8	8	2	2	2	2	3	3
Air flow rate	A	m³/h	-	-	-	-	34100	34100	32600	32600	50000	49000
	E	m³/h	22000	22000	27000	27000	21100	22200	21800	22800	32500	35300
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	85,0
	E	dB(A)	74,0	74,0	75,0	76,0	74,0	74,0	74,0	74,0	77,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	53,0	52,9
	E	dB(A)	42,3	42,2	43,2	44,2	42,1	42,1	42,1	42,1	45,0	45,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1975
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1500
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	A	mm	-	-	-	-	3010	3010	3010	3010	4010	4350
	E	mm	2450	2950	2950	2950	3010	3010	3010	3010	4010	4350
Dimensions and weights without hydronic kit												
Empty weight	A	kg	-	-	-	-	955	959	1142	1155	1323	1663
	E	kg	686	751	761	767	955	959	1142	1155	1323	1663

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRL 0280H-0750H

Reversible air/water heat pump

Cooling capacity 51 ÷ 180 kW
Heating capacity 58 ÷ 204 kW

- High efficiency also at partial loads
- Compact dimensions
- Quick & easy installation



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

C-TOUCH: 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	°A					*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*
Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
C-TOUCH	°A					*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*

Condensation control temperature

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Fans: °										
°	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX65	DCPX65
E,L	Inverter	Inverter	Inverter	Inverter	As standard	As standard	As standard	As standard	As standard	As standard
Fans: M										
E,L	DCPX63	DCPX63	DCPX63	DCPX63	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT23
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E,L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT23
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09										
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT23
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E,L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT23
Integrated hydronic kit: P1, P2, P3, P4										
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT23
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT23
E,L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT23

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP10 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)
L	GP3	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP10 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
°A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)
E,L	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
°A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53
E,L	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRL
4,5,6,7	Size 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750

Field	Description
8	Operating yield
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve

Field	Description
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (1)
11	Version (2)
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard (3)
J	Inverter (4)
M	Oversized
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
1	220V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit

Field	Description
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters (5)
05	Storage tank with holes for heaters and single low head pump
06	Storage tank with holes for heaters and pump low head + stand-by pump
07	Storage tank with holes for heaters and single high head pump
08	Storage tank with holes for heaters and pump high head + stand-by pump
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

- (1) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
- (2) The size 0280-0300-0330-0350 are only available in the silenced versions "HL/HE"
- (3) As standard in sizes from 0500 ÷ 0750
- (4) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.
- (5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRL H°

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	89,7	94,7	114,6	133,7	144,7	175,6
Input power	kW	-	-	-	-	36,9	41,0	49,8	54,1	63,8	71,2
Cooling total input current	A	-	-	-	-	63,0	67,0	81,0	88,0	100,0	122,0
EER	W/W	-	-	-	-	2,43	2,31	2,30	2,47	2,27	2,47
Water flow rate system side	l/h	-	-	-	-	15463	16322	19758	23023	24913	30239
Pressure drop system side	kPa	-	-	-	-	46	50	53	58	64	74
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	99,3	106,3	129,3	150,3	165,4	201,5
Input power	kW	-	-	-	-	33,8	36,7	43,9	49,0	56,3	66,8
Heating total input current	A	-	-	-	-	60,0	63,0	76,0	82,0	95,0	113,0
COP	W/W	-	-	-	-	2,94	2,90	2,94	3,07	2,94	3,02
Water flow rate system side	l/h	-	-	-	-	17206	18423	22420	26070	28677	34934
Pressure drop system side	kPa	-	-	-	-	55	62	67	73	83	96

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HL

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	50,8	60,8	65,9	72,8	82,8	89,7	109,7	123,6	139,7	164,7
Input power	kW	20,4	22,8	26,4	31,4	40,1	43,4	52,4	59,0	66,4	78,4
Cooling total input current	A	36,0	40,0	44,0	51,0	70,0	75,0	90,0	99,0	111,0	132,0
EER	W/W	2,49	2,67	2,49	2,32	2,07	2,07	2,09	2,10	2,10	2,10
Water flow rate system side	l/h	8762	10480	11340	12542	14260	15463	18899	21305	24054	28349
Pressure drop system side	kPa	47	43	29	45	39	45	49	50	60	65
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	58,2	68,2	75,2	82,3	99,3	106,3	129,3	150,3	165,4	201,4
Input power	kW	19,0	21,7	24,6	28,3	33,8	36,7	43,9	49,0	56,3	66,6
Heating total input current	A	33,0	38,0	41,0	50,0	60,0	63,0	76,0	82,0	95,0	113,0
COP	W/W	3,06	3,14	3,05	2,91	2,94	2,90	2,94	3,07	2,94	3,03
Water flow rate system side	l/h	10080	11818	13035	14252	17206	18423	22420	26070	28677	34934
Pressure drop system side	kPa	61	54	36	56	55	62	67	73	83	82

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HA

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	93,8	99,8	121,7	137,6	149,7	179,7
Input power	kW	-	-	-	-	30,8	34,0	41,5	48,5	52,1	64,2
Cooling total input current	A	-	-	-	-	55,0	60,0	71,0	77,0	90,0	113,0
EER	W/W	-	-	-	-	3,05	2,93	2,93	2,84	2,88	2,80
Water flow rate system side	l/h	-	-	-	-	16150	17181	20961	23710	25772	30926
Pressure drop system side	kPa	-	-	-	-	33	36	36	43	49	64
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	103,3	110,3	135,4	152,3	171,3	204,4
Input power	kW	-	-	-	-	31,7	34,3	40,8	45,7	53,1	62,7
Heating total input current	A	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
COP	W/W	-	-	-	-	3,26	3,21	3,32	3,33	3,23	3,26
Water flow rate system side	l/h	-	-	-	-	17901	19118	23463	26417	29720	35455
Pressure drop system side	kPa	-	-	-	-	40	44	44	52	64	82

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HE

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	52,9	61,9	68,8	76,8	89,8	94,8	113,8	127,7	142,7	174,7
Input power	kW	18,1	20,2	23,4	26,9	33,4	36,7	45,4	53,2	58,5	69,8
Cooling total input current	A	30,0	34,0	37,0	45,0	60,0	64,0	78,0	89,0	97,0	120,0
EER	W/W	2,93	3,06	2,94	2,86	2,69	2,58	2,51	2,40	2,44	2,50
Water flow rate system side	l/h	9106	10652	11855	13229	15463	16322	19586	21992	24569	30067
Pressure drop system side	kPa	27	27	51	29	30	32	31	37	45	60
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	59,1	69,2	76,3	86,2	103,3	110,3	135,4	152,3	171,3	204,4
Input power	kW	17,5	20,6	23,1	26,1	31,7	34,3	40,8	45,7	53,1	62,7
Heating total input current	A	35,0	39,0	43,0	49,0	60,0	64,0	79,0	91,0	99,0	113,0
COP	W/W	3,38	3,36	3,31	3,30	3,26	3,21	3,32	3,33	3,23	3,26
Water flow rate system side	l/h	10254	11992	13209	14947	17901	19118	23463	26417	29720	35455
Pressure drop system side	kPa	25	34	66	34	40	44	44	52	64	82

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electric data											
Maximum current (FLA)	°A	A	-	-	-	-	76,0	81,0	100,0	112,0	144,0
	E	A	46,0	53,0	58,0	63,0	76,0	81,0	100,0	112,0	144,0
	L	A	46,0	53,0	53,0	63,0	76,0	220,0	100,0	112,0	144,0
Peak current (LRA)	°A	A	-	-	-	-	214,0	220,0	232,0	243,0	320,0
	E	A	155,0	184,0	190,0	200,0	214,0	220,0	232,0	243,0	320,0
	L	A	155,0	184,0	184,0	200,0	214,0	81,0	232,0	143,0	261,0

ENERGY DATA

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity with low leaving water temp (UE n° 2016/2281)											
SEER	°	W/W	-	-	-	3,17	3,07	3,49	3,30	3,37	3,54
	A	W/W	-	-	-	3,59	3,94	3,94	3,92	3,85	3,85
	E	W/W	3,74	3,71	3,80	3,71	3,55	3,36	3,77	3,69	3,76
	L	W/W	2,96	3,19	3,01	3,28	3,15	3,07	3,48	3,31	3,54
η _{sc}	°	%	-	-	-	123,60	119,70	136,60	128,90	131,70	138,60
	A	%	-	-	-	140,60	154,50	154,50	153,70	150,80	151,00
	E	%	146,50	145,20	148,90	145,30	138,90	131,40	147,80	146,70	144,50
	L	%	115,30	124,40	117,30	128,30	122,80	119,60	136,20	129,40	131,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 70 kW (1)											
Efficiency energy class	°A		-	-	-	-	-	-	-	-	-
	E,L		A+	A+	A+	-	-	-	-	-	-
Pdesignh	°	kW	-	-	-	85	91	110	127	141	171
	A	kW	-	-	-	87	93	114	129	145	173
	E	kW	50	58	64	73	87	93	114	129	145
	L	kW	49	58	64	71	85	91	110	127	141
η _{sh}	°	%	-	-	-	125,00	125,00	125,00	128,00	125,00	129,00
	A	%	-	-	-	136,00	136,00	140,00	140,00	135,00	138,00
	E	%	138,00	137,00	137,00	135,00	136,00	136,00	140,00	140,00	138,00
	L	%	125,00	128,00	125,00	125,00	125,00	125,00	128,00	125,00	129,00
SCOP	°		-	-	-	3,20	3,20	3,20	3,28	3,20	3,30
	A		-	-	-	3,48	3,48	3,58	3,58	3,45	3,53
	E		3,53	3,50	3,50	3,45	3,48	3,48	3,58	3,58	3,45
	L		3,20	3,28	3,20	3,20	3,20	3,20	3,28	3,20	3,30

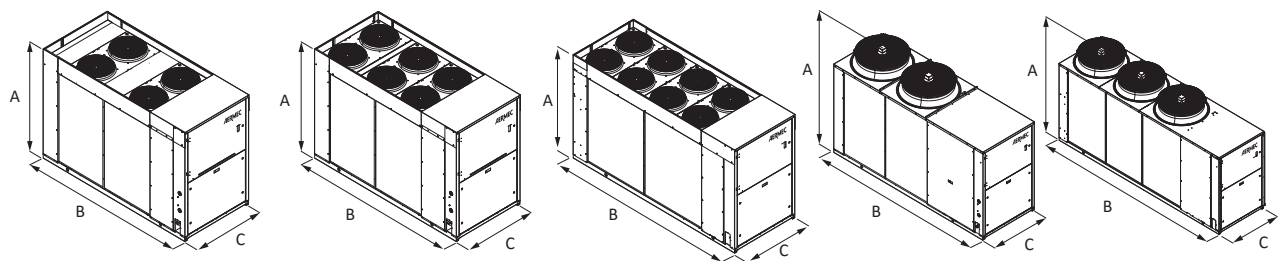
(1) Efficiencies for low temperature applications (35 °C)

GENERAL TECHNICAL DATA

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Compressor											
Type	°A,E,L	type									
Compressor regulation	°A,E,L	Type									
Number	°A,E,L	no.	2	2	2	2	3	3	4	4	4
Circuits	°A,E,L	no.	2	2	2	2	2	2	2	2	2
Refrigerant	°A,E,L	type									
System side heat exchanger											
Type	°A,E,L	type									
Number	°A,E,L	no.	1	1	1	1	1	1	1	1	1
System side hydraulic connections											
Connections (in/out)	°A,E,L	Type									
Sizes (in/out)	°A,E,L	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"
Fan											
Type	°A,E,L	type									
Number	°	no.	-	-	-	-	2	2	2	2	3
	A	no.	-	-	-	-	2	2	2	2	3
	E	no.	6	8	8	8	2	2	2	2	3
	L	no.	4	6	6	6	2	2	2	2	3
Air flow rate	°	m³/h	-	-	-	-	39400	39400	39400	37500	50200
	A	m³/h	-	-	-	-	37000	37000	36500	36500	58000
	E	m³/h	20000	26000	26000	26000	20200	21100	21400	22400	31900
	L	m³/h	14000	20000	20000	20000	28400	28700	28700	27400	41700
Sound data calculated in cooling mode (1)											
Sound power level	°A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0
	E	dB(A)	74,0	75,0	75,0	76,0	74,0	74,0	74,0	75,0	77,0
	L	dB(A)	73,0	74,0	74,0	75,0	77,0	77,0	77,0	78,0	80,0
Sound pressure level (10 m)	°A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	52,9
	E	dB(A)	42,3	43,2	43,2	44,2	42,1	42,1	42,1	43,1	44,9
	L	dB(A)	41,3	42,3	42,3	43,3	45,1	45,1	45,1	46,1	47,9

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Dimensions and weights												
A	°A	mm	-	-	-	-	1875	1875	1875	1875	1875	1975
	E,L	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	°	mm	-	-	-	-	3010	3010	3010	3010	3010	4350
	A	mm	-	-	-	-	3010	3010	3010	3010	4010	4350
	E	mm	-	2950	2950	2950	3010	3010	3010	3010	4010	4010
	L	mm	2450	2450	2450	2450	3010	3010	3010	3010	3010	4350
Weights												
Without hydronic kit	°	kg	-	-	-	-	913	917	1016	1130	1142	1487
	A	kg	-	-	-	-	1099	1103	1204	1212	1390	1748
	E	kg	730	795	805	811	1099	1103	1204	1212	1390	1748
	L	kg	713	724	731	740	913	917	1016	1130	1142	1487

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NRB 0800-3600

Air-water chiller

Cooling capacity 217 ÷ 1049 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **HP floating: ESEER +7% with inverter fans**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. They are outdoor units with axial fan scroll compressors, microchannel batteries and plate exchangers.

In the unit with desuperheater, it is also possible to produce free-hot water.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced
- N Silenced very high efficiency
- U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1800 to 3600.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO⁵

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

CONFIGURATOR

Field	Description
1,2,3	NRB
	Size
4,5,6,7	0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating yield
	° Standard mechanic thermostatic valve (1)
	X Electronic thermostatic expansion valve (1)
	Y Low temperature mechanic thermostatic valve (2)
	Z Low temperature electronic thermostatic valve (2)
9	Model
	° Cooling only
	C Motocondensing unit (3)
10	Heat recovery
	° Without heat recovery
	D With desuperheater (4)
	T With total recovery (5)
11	Version
	° Standard
	A High efficiency
	E Silenced high efficiency
	L Standard silenced
	N Silenced very high efficiency
	U Very high efficiency
12	Coils
	° Alluminium microchannel
	I Copper-aluminium
	O Painted alluminium microchannel
	R Copper-copper
	S Tinned copper
	V Copper-painted aluminium
13	Fans
	° Standard
	J Inverter
	M Oversized
14	Power supply
	° 400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
	00 Without hydronic kit
	Kit with n° 1 pump (6)
	PA Pump A
	PB Pump B
	PC Pump C
	PD Pump D
	PE Pump E

Field	Description
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump
	Kit with storage tank and n° 1 pump
AA	Storage tank and pump A
AB	Storage tank and pump B
AC	Storage tank and pump C
AD	Storage tank and pump D
AE	Storage tank and pump E
AF	Storage tank and pump F
AG	Storage tank and pump G
AH	Storage tank and pump H
AI	Storage tank and pump I
AJ	Storage tank and pump J
	Kit with storage tank and n° 1 pump + stand-by pump
BA	Storage tank with pump A + stand-by pump
BB	Storage tank with pump B + stand-by pump
BC	Storage tank with pump C + stand-by pump
BD	Storage tank with pump D + stand-by pump
BE	Storage tank with pump E + stand-by pump
BF	Storage tank with pump F + stand-by pump
BG	Storage tank with pump G + stand-by pump
BH	Storage tank with pump H + stand-by pump
BI	Storage tank with pump I + stand-by pump
BJ	Storage tank with pump J + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions

(3) Condensing units "C" are not compatible with the Y/X/Z/T/D option

(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(5) None of the hydronic kits (from PA to BJ) are compatible with the following sizes and with versions with heat recovery T: 0800 - 0900 - 1000 - 1100 version °; 0800 - 0900 version A; 0800 - 0900 version L. None of the hydronic kits with pump(s) and storage tank (from AA to BJ) are compatible with all the sizes and with versions with heat recovery T

(6) For all configurations including pump J please contact the factory.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

GP_V: Anti-intrusion grid kit

XLA: The Kit, which consists of resistances for the electric power board and "J" inverter fans, allows the outdoor air temperature operating range to be extended from -10°C to -20°C outdoor air.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX805	AVX805	AVX805	AVX805	AVX808	AVX808	AVX808	AVX810	AVX810	AVX810	AVX809	AVX815	AVX819	AVX819	AVX819	AVX818	AVX818
A,L	AVX805	AVX805	AVX806	AVX808	AVX808	AVX808	AVX810	AVX810	AVX809	AVX809	AVX863	AVX813	AVX818	AVX818	AVX816	AVX816	AVX816
E,U	AVX806	AVX806	AVX808	AVX807	AVX807	AVX810	AVX809	AVX863	AVX863	AVX813	AVX813	AVX816	AVX816	AVX817	AVX820	AVX820	AVX820
N	AVX807	AVX807	AVX807	AVX809	AVX809	AVX809	AVX863	AVX812	AVX812	AVX814	AVX814	AVX817	AVX817	AVX820	AVX821	AVX821	AVX821
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH																	
°	AVX844	AVX844	AVX844	AVX844	AVX844	AVX848	AVX848	AVX845	AVX845	AVX845	AVX847	AVX853	AVX857	AVX859	AVX859	AVX858	AVX858
A,L	AVX844	AVX844	AVX844	AVX844	AVX844	AVX848	AVX845	AVX845	AVX847	AVX847	AVX849	AVX854	AVX858	AVX858	AVX861	AVX861	AVX861
E,U	AVX844	AVX844	AVX844	AVX845	AVX845	AVX845	AVX847	AVX849	AVX849	AVX851	AVX851	AVX855	AVX855	AVX856	AVX860	AVX860	AVX860
N	AVX845	AVX845	AVX845	AVX847	AVX847	AVX847	AVX849	AVX850	AVX851	AVX852	AVX852	AVX856	AVX856	AVX860	AVX862	AVX862	AVX862
Integrated hydronic kit: BI, BJ																	
°	AVX844	AVX844	AVX844	AVX844	AVX846	AVX848	AVX848	AVX845	AVX845	AVX845	AVX847	AVX853	AVX857	AVX859	AVX859	AVX858	AVX858
A,L	AVX844	AVX844	AVX846	AVX846	AVX846	AVX848	AVX845	AVX845	AVX847	AVX847	AVX849	AVX854	AVX858	AVX858	AVX861	AVX861	AVX861
E,U	AVX844	AVX844	AVX846	AVX845	AVX845	AVX845	AVX847	AVX849	AVX849	AVX851	AVX851	AVX855	AVX855	AVX856	AVX860	AVX860	AVX860
N	AVX845	AVX845	AVX845	AVX847	AVX847	AVX847	AVX849	AVX850	AVX851	AVX852	AVX852	AVX856	AVX856	AVX860	AVX862	AVX862	AVX862
Integrated hydronic kit: DA, DB, DC																	
°	AVX822	AVX822	AVX822	AVX822	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX822	AVX822	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX828	AVX828	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX837	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX828	AVX828	AVX828	AVX830	AVX831	AVX831	AVX833	AVX833	AVX837	AVX837	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: DD, DE, DF, DG, DH																	
°	AVX823	AVX823	AVX823	AVX823	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX823	AVX823	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX829	AVX829	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX838	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX829	AVX829	AVX829	AVX830	AVX831	AVX831	AVX833	AVX833	AVX838	AVX838	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: DI, DJ																	
°	AVX864	AVX864	AVX829	AVX864	AVX825	AVX825	AVX827	AVX827	AVX827	AVX827	AVX829	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX864	AVX864	AVX825	AVX825	AVX825	AVX825	AVX827	AVX827	AVX829	AVX829	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX827	AVX827	AVX827	AVX829	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX838	AVX841	AVX841	AVX841
N	AVX827	AVX827	AVX827	AVX829	AVX829	AVX829	AVX830	AVX831	AVX831	AVX833	AVX833	AVX838	AVX838	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: PA, PB, PC, PD, PE, PF, PG, PH																	
°	AVX822	AVX822	AVX822	AVX822	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX822	AVX822	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX828	AVX828	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX837	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX828	AVX828	AVX828	AVX830	AVX831	AVX831	AVX833	AVX833	AVX837	AVX837	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: PI, PJ																	
°	AVX823	AVX823	AVX823	AVX823	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX823	AVX823	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX829	AVX829	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX838	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX829	AVX829	AVX829	AVX830	AVX831	AVX831	AVX833	AVX833	AVX838	AVX838	AVX841	AVX843	AVX843	AVX843

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
Fans: °									
°	DCPX120	DCPX120	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX122	DCPX122
A	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX121	DCPX122	DCPX122	DCPX123
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX121	DCPX121	DCPX122	DCPX122	DCPX122	DCPX122	DCPX123	DCPX124	DCPX124
Fans: M									
°	DCPX130	DCPX130	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132
A	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX133
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX132	DCPX133	DCPX134	DCPX134
Ver	2200	2400	2600	2800	3000	3200	3400	3600	
Fans: °									
°	DCPX122	DCPX123	DCPX123	DCPX124	DCPX124	DCPX124	DCPX125	DCPX125	
A	DCPX123	DCPX124	DCPX125	DCPX125	DCPX125	DCPX126	DCPX126	DCPX126	
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	
U	DCPX125	DCPX125	DCPX126	DCPX126	DCPX127	DCPX128	DCPX128	DCPX128	
Fans: M									
°	DCPX132	DCPX133	DCPX133	DCPX134	DCPX134	DCPX134	DCPX135	DCPX135	
A	DCPX133	DCPX134	DCPX135	DCPX135	DCPX135	DCPX136	DCPX136	DCPX136	
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	
U	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX138	DCPX138	DCPX138	

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°,A,E,L,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1800	RIFNRB2000
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1800	RIFNRB2000
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

A grey background indicates the accessory must be assembled in the factory

Ver	2200	2400	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

■ GP2VN becomes GP2VNA if configured with a type A or B hydronic kit

Kit for low temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
°	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
A,L	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
E,U	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
N	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)

(1) With the accessory XLA do not use the DCPX.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	221,5	244,5	270,3	299,7	353,1	404,9	439,0	511,2	560,9	598,2	675,8	721,6	786,8	830,6	880,2	945,8	998,2
Input power	kW	73,3	83,1	94,1	110,3	117,5	135,4	155,1	175,7	194,0	216,6	236,5	256,0	270,3	292,6	314,7	329,4	355,2
Cooling total input current	A	128,3	143,1	160,0	185,5	201,6	229,9	260,8	299,7	329,8	366,5	404,6	434,0	459,4	498,2	534,6	562,9	606,0
EER	W/W	3,02	2,94	2,87	2,72	3,00	2,99	2,83	2,91	2,89	2,76	2,86	2,82	2,91	2,84	2,80	2,87	2,81
Water flow rate system side	l/h	38117	42076	46497	51565	60733	69640	75511	87913	96469	102882	116222	124099	135304	142812	151332	162608	172610
Pressure drop system side	kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - L

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	216,9	237,7	272,7	307,7	343,9	391,0	438,4	498,2	555,4	608,2	666,2	727,2	770,0	834,2	886,6	952,6	1004,1
Input power	kW	73,0	85,9	92,0	107,4	122,7	139,0	151,9	173,3	191,6	213,6	233,8	246,8	270,1	284,5	307,5	323,1	347,9
Cooling total input current	A	122,8	142,3	154,5	179,0	203,4	231,8	250,8	289,7	318,6	359,2	390,2	412,6	448,8	478,6	512,6	544,6	585,4
EER	W/W	2,97	2,77	2,97	2,87	2,80	2,81	2,89	2,87	2,90	2,85	2,85	2,95	2,85	2,93	2,88	2,95	2,89
Water flow rate system side	l/h	37323	40890	46905	52926	59137	67243	75380	85669	95497	104585	114564	125029	132382	143407	152424	163776	172631
Pressure drop system side	kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	224,1	252,2	283,7	326,1	361,2	411,7	462,2	519,2	576,0	633,3	697,6	757,5	805,8	867,0	928,7	980,8	1026,8
Input power	kW	70,6	80,9	90,2	104,7	115,3	131,8	147,6	166,3	183,5	203,1	223,3	240,5	256,5	277,0	297,0	314,4	330,3
Cooling total input current	A	123,9	139,9	158,8	181,8	198,2	224,1	252,4	283,8	316,2	348,7	386,3	417,6	441,6	475,9	513,3	541,6	567,7
EER	W/W	3,17	3,12	3,15	3,12	3,13	3,12	3,13	3,12	3,14	3,12	3,12	3,15	3,14	3,13	3,13	3,12	3,11
Water flow rate system side	l/h	38560	43394	48801	56076	62118	70789	79487	89271	99047	108893	119965	130235	138536	149047	159671	168621	176531
Pressure drop system side	kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	219,2	248,3	275,0	321,4	358,7	403,2	455,0	514,5	569,0	637,2	688,3	741,1	794,3	857,9	911,7	965,1	1019,4
Input power	kW	69,6	79,4	88,5	102,2	114,9	129,8	144,5	164,7	183,0	203,4	221,4	236,5	255,5	274,7	290,6	310,5	327,8
Cooling total input current	A	119,5	134,7	148,8	172,1	192,6	215,7	240,1	275,1	306,1	342,6	372,8	397,0	425,9	459,5	487,5	520,6	549,0
EER	W/W	3,15	3,13	3,11	3,15	3,12	3,11	3,15	3,12	3,11	3,13	3,11	3,13	3,11	3,12	3,14	3,11	3,11
Water flow rate system side	l/h	37709	42725	47302	55271	61679	69338	78240	88465	97840	109549	118323	127416	136570	147496	156743	165934	175268
Pressure drop system side	kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	227,6	257,6	286,5	329,6	369,8	414,6	466,9	529,2	594,0	655,1	716,9	765,5	815,3	879,0	940,9	999,7	1049,5
Input power	kW	68,8	77,7	86,8	99,5	111,7	126,1	140,9	159,5	179,0	197,8	215,3	229,4	248,9	265,7	282,3	302,5	319,5
Cooling total input current	A	124,3	138,5	152,9	176,0	195,6	218,0	244,0	278,3	311,7	347,7	377,4	401,2	431,5	463,1	493,9	527,9	556,4
EER	W/W	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,32	3,32	3,31	3,33	3,34	3,28	3,31	3,33	3,30	3,28
Water flow rate system side	l/h	39150	44308	49293	56689	63595	71301	80285	91002	102137	112618	123250	131615	140178	151126	161768	171875	180442
Pressure drop system side	kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	227,7	260,4	284,7	327,7	367,7	412,3	466,1	521,6	579,1	645,7	702,6	749,4	804,7	866,4	926,7	973,5	1029,9
Input power	kW	68,5	78,9	86,4	98,5	111,9	125,4	140,4	157,8	176,0	194,6	212,9	229,0	246,7	263,5	282,7	301,1	319,3
Cooling total input current	A	118,2	135,1	146,9	166,9	188,6	209,4	234,0	264,2	295,4	328,9	360,0	385,3	412,5	442,0	475,2	506,2	536,4
EER	W/W	3,32	3,30	3,30	3,33	3,29	3,29	3,32	3,31	3,29	3,32	3,30	3,27	3,26	3,29	3,28	3,23	3,23
Water flow rate system side	l/h	39166	44791	48971	56365	63233	70905	80150	89691	99568	111008	120788	128848	138355	148960	159327	167376	177077
Pressure drop system side	kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
SEER - 12/7 (EN14825:2018) with standard fans (1)																		
SEER	°	W/W	4,22	4,13	4,10	4,11	4,19	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,41	4,34	4,39	4,45	4,48	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	4,46	4,40	4,40	4,54	4,54	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	W/W	4,31	4,16	4,24	4,27	4,31	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	W/W	4,61	4,56	4,58	4,72	4,68	4,72	4,78	4,66	4,58	4,61	4,64	4,59	4,62	4,60	4,59	4,62
	U	W/W	4,51	4,51	4,51	4,63	4,64	4,65	4,69	4,61	4,56	4,57	4,59	4,58	4,56	4,59	4,57	4,56
Seasonal efficiency	°	%	166,0%	162,3%	161,0%	161,2%	164,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	173,5%	170,6%	172,4%	174,9%	176,0%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	%	175,6%	173,1%	173,1%	178,7%	178,5%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	%	169,4%	163,6%	166,8%	167,6%	169,2%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	%	181,3%	179,3%	180,0%	185,7%	184,1%	185,9%	188,2%	183,4%	180,3%	181,5%	181,6%	182,7%	180,6%	181,7%	180,9%	181,7%
	U	%	177,2%	177,4%	177,2%	182,1%	182,5%	183,1%	184,8%	181,4%	179,2%	179,9%	180,5%	180,3%	179,3%	180,6%	179,7%	179,5%
SEER - (EN14825:2018) 12/7 with inverter fans (3)																		
SEER	°	W/W	4,44	4,33	4,26	4,25	4,39	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,65	4,55	4,66	4,70	4,69	4,73	4,76	4,64	4,63	4,62	4,61	4,68	4,66	4,66	4,68	4,64
	E	W/W	4,75	4,67	4,62	4,81	4,81	4,76	4,88	4,73	4,67	4,69	4,74	4,69	4,71	4,74	4,80	4,72
	L	W/W	4,55	4,42	4,50	4,51	4,58	4,59	4,67	4,56	4,56	4,58	4,56	4,61	4,56	4,57	4,58	4,61
	N	W/W	4,85	4,79	4,83	4,96	4,93	4,97	5,03	4,93	4,82	4,88	4,82	4,89	4,80	4,84	4,83	4,73
	U	W/W	4,76	4,75	4,70	4,89	4,85	4,86	4,91	4,84	4,77	4,82	4,78	4,87	4,81	4,85	4,92	4,82
Seasonal efficiency	°	%	174,6%	170,1%	167,6%	167,1%	172,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	182,8%	179,1%	183,4%	185,0%	184,7%	186,2%	187,3%	182,7%	182,4%	181,7%	181,5%	184,2%	183,5%	183,3%	184,0%	182,7%
	E	%	187,0%	183,7%	182,0%	189,3%	189,6%	187,5%	192,3%	186,2%	183,9%	184,8%	186,4%	184,7%	185,3%	186,4%	189,1%	185,8%
	L	%	179,2%	173,8%	177,0%	177,5%	180,1%	180,4%	183,9%	179,5%	179,4%	180,1%	179,6%	181,3%	179,4%	179,9%	180,3%	181,6%
	N	%	191,1%	188,4%	190,3%	195,4%	194,2%	195,9%	198,1%	194,1%	189,9%	192,4%	190,0%	192,7%	189,1%	190,6%	190,2%	186,3%
	U	%	187,4%	187,1%	185,2%	192,5%	191,0%	191,3%	193,3%	190,7%	187,7%	189,6%	188,1%	191,9%	189,4%	191,1%	193,8%	190,0%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	°	W/W	5,08	4,98	4,92	4,82	5,20	5,26	5,03	4,91	4,97	4,63	4,91	4,84	4,86	4,77	4,72	4,85
	A	W/W	5,29	5,15	5,25	5,28	5,35	5,37	5,42	5,15	5,22	5,09	5,22	5,30	5,18	5,15	5,17	5,13
	E	W/W	5,36	5,24	5,28	5,40	5,43	5,37	5,54	5,21	5,22	5,21	5,30	5,33	5,14	5,17	5,22	5,17
	L	W/W	5,06	4,87	5,07	5,08	5,05	5,10	5,19	5,02	5,02	4,92	4,99	5,21	4,94	5,03	4,99	5,06
	N	W/W	5,57	5,47	5,50	5,66	5,61	5,65	5,73	5,48	5,48	5,44	5,54	5,48	5,32	5,37	5,37	5,29
	U	W/W	5,41	5,44	5,41	5,58	5,56	5,60	5,63	5,46	5,49	5,39	5,50	5,57	5,29	5,35	5,48	5,36
Seasonal efficiency	°	%	200,1%	196,0%	193,6%	189,9%	205,1%	207,3%	198,3%	193,3%	195,7%	182,0%	193,5%	190,6%	191,5%	187,9%	186,0%	191,0%
	A	%	208,4%	203,0%	206,8%	208,0%	211,1%	211,6%	213,6%	203,1%	205,7%	200,6%	205,6%	209,1%	204,0%	203,0%	203,6%	202,1%
	E	%	211,4%	206,4%	208,3%	213,0%	214,0%	211,8%	218,5%	205,5%	205,7%	205,3%	208,9%	210,3%	202,4%	203,9%	205,9%	203,7%
	L	%	199,4%	191,9%	199,7%	200,1%	199,1%	200,8%	204,4%	197,7%	197,6%	193,9%	196,4%	205,2%	194,5%	198,0%	196,4%	199,5%
	N	%	219,7%	215,8%	216,8%	223,4%	221,5%	223,0%	226,2%	216,0%	216,3%	214,6%	218,4%	216,3%	209,6%	211,6%	211,8%	208,5%
	U	%	213,4%	214,4%	213,3%	220,0%	219,5%	221,0%	222,2%	215,3%	216,4%	212,5%	216,9%	219,7%	208,7%	211,1%	216,1%	211,4%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	°	W/W	5,28	5,16	5,07	4,96	5,40	5,44	5,18	5,07	5,13	4,77	5,07	5,09	5,09	4,98	4,92	5,09
	A	W/W	5,50	5,35	5,50	5,51	5,55	5,55	5,63	5,34	5,44	5,30	5,42	5,41	5,43	5,38	5,43	5,36
	E	W/W	5,62	5,53	5,46	5,70	5,69	5,63	5,77	5,50	5,52	5,48	5,59	5,47	5,41	5,47	5,77	5,50
	L	W/W	5,34	5,14	5,35	5,33	5,37	5,34	5,47	5,26	5,32	5,20	5,26	5,35	5,20	5,25	5,21	5,32
	N	W/W	5,82	5,71	5,76	5,91	5,88	5,91	5,99	5,75	5,74	5,71	5,75	5,74	5,55	5,62	5,64	5,54
	U	W/W	5,65	5,67	5,59	5,82	5,76	5,80	5,83	5,67	5,69	5,61	5,68	5,77	5,59	5,66	5,85	5,70
Seasonal efficiency	°	%	208,1%	203,4%	199,8%	195,4%	212,9%	214,5%	204,1%	199,9%	202,1%	187,8%	199,6%	200,4%	200,4%	196,1%	193,9%	200,4%
	A	%	217,0%	210,9%	217,0%	217,5%	219,1%	219,1%	222,1%	210,5%	214,6%	209,1%	213,6%	213,4%	214,2%	212,0%	214,3%	211,5%
	E	%	221,9%	218,3%	215,3%	224,9%	224,5%	222,2%	227,7%	216,8%	217,7%	216,0%	220,6%	215,7%	213,4%	215,6%	227,9%	216,8%
	L	%	210,4%	202,7%	211,0%	210,2%	211,6%	210,4%	215,8%	207,4%	209,7%	205,1%	207,5%	211,0%	204,8%	206,9%	205,4%	209,9%
	N	%	229,9%	225,3%	227,5%	233,5%	232,1%	233,4%	236,4%	226,8%	226,4%	225,5%	227,1%	226,4%	219,1%	221,6%	222,4%	218,4%
	U	%	222,8%	233,7%	220,7%	229,9%	227,5%	228,8%	230,2%	223,8%	224,5%	221,5%	224,0%	227,8%	220,6%	223,4%	231,0%	225,0%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	°	W/W	5,39	5,21	5,17	5,03	5,35	5,50	5,52	5,57	5,52	5,51	5,51	5,51	5,53	5,54	5,55	5,50
	A	W/W	5,64	5,29	5,58	5,29	5,55	5,51	5,55	5,55	5,56	5,54	5,55	5,54	5,59	5,54	5,59	5,56
	E	W/W	5,56	5,21	5,46	5,25	5,52	5,55	5,58	5,54	5,52	5,55	5,55	5,55	5,52	5,55	5,52	5,55
	L	W/W	5,31	5,05	5,31	5,04	5,17	5,04	5,52	5,53	5,52	5,52	5,54	5,54	5,54	5,51	5,53	5,51
	N	W/W	5,69	5,54	5,66	5,59	5,64	5,61	5,66	5,57	5,62	5,59	5,64	5,60	5,50	5,63	5,69	5,51
	U	W/W	5,67	5,53	5,65	5,53	5,67	5,59	5,68	5,55	5,55	5,57	5,72	5,74	5,59	5,70	5,67	5,71

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

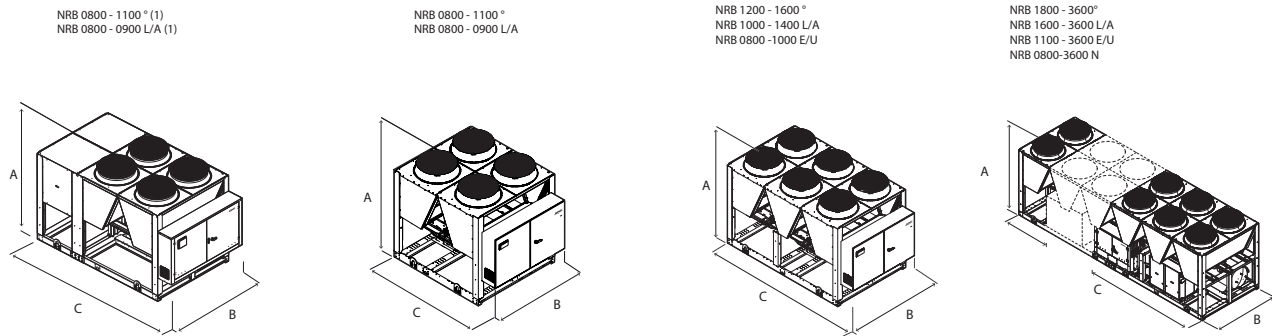
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	164,0	181,0	197,0	226,0	262,0	291,0	320,0	367,0	408,0	449,0	497,0	529,0	569,0	610,0	650,0	698,0	739,0
	A,L	A	177,0	193,0	222,0	252,0	281,0	310,0	352,0	393,0	446,0	487,0	547,0	592,0	625,0	666,0	720,0	761,0	802,0
	E,U	A	190,0	206,0	222,0	265,0	294,0	323,0	365,0	424,0	465,0	519,0	560,0	605,0	638,0	692,0	745,0	786,0	827,0
	N	A	203,0	219,0	235,0	277,0	307,0	336,0	383,0	437,0	478,0	531,0	572,0	618,0	651,0	704,0	758,0	799,0	840,0
Peak current (LRA)	°	A	353,0	408,0	424,0	477,0	513,0	625,0	654,0	637,0	678,0	719,0	766,0	799,0	838,0	879,0	920,0	967,0	1008,0
	A,L	A	366,0	421,0	450,0	503,0	532,0	644,0	686,0	662,0	716,0	757,0	816,0	862,0	895,0	936,0	989,0	1030,0	1071,0
	E,U	A	378,0	434,0	450,0	515,0	545,0	657,0	699,0	693,0	734,0	788,0	829,0	874,0	907,0	961,0	1015,0	1056,0	1096,0
	N	A	391,0	446,0	463,0	528,0	557,0	670,0	717,0	706,0	747,0	801,0	842,0	887,0	920,0	974,0	1027,0	1068,0	1109,0

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°A,E,L,N,U	type	Scroll																
Compressor regulation	°A,E,L,N,U	Type	Asynchronous																
Number	°A,E,L,N,U	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	°A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°A,E,L,N,U	type	R410A																
Refrigerant charge	°	kg	32,0	32,0	32,0	32,0	48,0	48,0	48,0	64,0	64,0	64,0	80,0	80,0	96,0	96,0	96,0	112,0	112,0
	A,L	kg	32,0	32,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	112,0	128,0	128,0	128,0	128,0
	E,U	kg	48,0	48,0	48,0	64,0	64,0	64,0	80,0	96,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0
	N	kg	64,0	64,0	64,0	80,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	144,0	160,0	176,0	176,0	176,0
System side heat exchanger																			
Type	°A,E,L,N,U	type	Braze plate																
Number	°A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																			
Connections (in/out)	°A,E,L,N,U	Type	Grooved joints																
Sizes (in/out)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"
	A,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"
Fan																			
Type	°A,E,L,N,U	type	Axial																
Fan motor	°A,E,L,N,U	type	Asynchronous																
Number	°	no.	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14
	A,L	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	°	m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
	A	m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
	E	m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
	L	m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
	N	m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
	U	m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	88,0	88,0	88,0	88,0	90,0	90,0	90,0	92,0	92,0	93,0	95,0	95,0	96,0	96,0	96,0	96,0	96,0
	A	dB(A)	88,0	88,0	90,0	90,0	90,0	90,0	91,0	92,0	94,0	94,0	96,0	96,0	96,0	96,0	97,0	97,0	97,0
	E	dB(A)	85,0	85,0	85,0	86,0	86,0	86,0	88,0	89,0	89,0	91,0	91,0	92,0	92,0	93,0	93,0	93,0	93,0
	L	dB(A)	83,0	83,0	85,0	85,0	85,0	86,0	86,0	88,0	89,0	90,0	90,0	91,0	91,0	92,0	92,0	93,0	93,0
	N	dB(A)	86,0	86,0	86,0	88,0	88,0	88,0	88,0	90,0	90,0	91,0	92,0	93,0	93,0	93,0	94,0	94,0	94,0
	U	dB(A)	90,0	90,0	90,0	91,0	91,0	91,0	93,0	94,0	95,0	96,0	96,0	97,0	97,0	98,0	98,0	98,0	98,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



1 Versions with storage tank

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	° A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	° A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	2780	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
	A,L	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	11900	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Empty weight	°	kg	2240	2280	2350	2390	2880	2930	2960	3580	3660	3740	4270	4500	5150	5390	5470	6000	6150
	A,L	kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390	6520	6600
	E,U	kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140	7220	7300
	N	kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540	7620	7700

- The units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; and 0800A, 0900A with the "storage tank" option, are 3970mm long.
- The weights are for standard units with plate heat exchangers and no hydronic kit.

NRB 0800-3600

Air-water chiller with shell and tube heat exchanger

Cooling capacity 217 ÷ 1049 kW



- Microchannel coil
- Shell and tube heat exchanger
- Night mode
- Operation up to 50 °C outdoor air
- HP floating: ESEER +7% with inverter fans



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. They are outdoor units with axial fan scroll compressors, microchannel coils and Shell and tube exchangers.

In the unit with desuperheater, it is also possible to produce free-hot water.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced
- N Silenced very high efficiency
- U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1800 to 3600.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO⁵

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Low temperature mechanic thermostatic valve (2)
Z	Low temperature electronic thermostatic valve (2)
9	Model
°	Cooling only
C	Motocondensing unit (3)
Q	Cooling only with shell and tube heat exchanger
10	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
T	With total recovery (5)
11	Version
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
N	Silenced very high efficiency
U	Very high efficiency
12	Coils
°	Alluminium microchannel
I	Copper-aluminium
O	Painted alluminium microchannel
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard

Field	Description
J	Inverter
M	Oversized
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit (6)
00	Without hydronic kit
	Kit with n° 1 pump
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions

(3) Condensing units "C" are not compatible with the Y/X/Z/T/D option

(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(5) For compatibility with total recovery see table below.

(6) For compatibility with the hydronic kit, see the table below.

Compatible with total recovery

Version		800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*
Standard silenced	L	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
High efficiency	A	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
Silenced high efficiency	E	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
Very high efficiency	U	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
Silenced very high efficiency	N	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Compatibility of models with hydronic units available with a configurator

Version		800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*
Standard silenced	L	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
High efficiency	A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
Silenced high efficiency	E	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Very high efficiency	U	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Silenced very high efficiency	N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

GP_V: Anti-intrusion grid kit

KRS: Electric heater for the plate heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A,E,L,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1107	AVX1107	AVX1107	AVX1107	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1109	AVX1110	AVX1112	AVX1114	AVX1114	AVX1114	AVX1106	AVX1106
A,L	AVX1107	AVX1107	AVX1108	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1105	AVX1102	AVX1102	AVX1102
E,U	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1109	AVX1110	AVX1111	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1103	AVX1103	AVX1103
N	AVX1109	AVX1109	AVX1109	AVX1110	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1113	AVX1103	AVX1104	AVX1104	AVX1104
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX1108	AVX (1)	AVX (1)	AVX1109	AVX1109	AVX1109	AVX1110	AVX1112	AVX1114	AVX1114	AVX1114	AVX1106	AVX1106
A,L	AVX (1)	AVX (1)	AVX1108	AVX (1)	AVX (1)	AVX (1)	AVX1109	AVX1109	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1105	AVX1102	AVX1102	AVX1102
E,U	AVX1108	AVX1108	AVX (1)	AVX1109	AVX1109	AVX1109	AVX1110	AVX1111	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1103	AVX1103	AVX1103
N	AVX1109	AVX1109	AVX1109	AVX1110	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1113	AVX1103	AVX1104	AVX1104	AVX1104

(1) Contact us.

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
Fans: °									
°	DCPX120	DCPX120	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX122	DCPX122
A	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX121	DCPX122	DCPX122	DCPX123
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX121	DCPX121	DCPX122	DCPX122	DCPX122	DCPX122	DCPX123	DCPX124	DCPX124
Fans: M									
°	DCPX130	DCPX130	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132
A	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX133
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX132	DCPX133	DCPX134	DCPX134
Ver	2200	2400	2600	2800	3000	3200	3400	3600	
Fans: °									
°	DCPX122	DCPX123	DCPX123	DCPX124	DCPX124	DCPX124	DCPX125	DCPX125	
A	DCPX123	DCPX124	DCPX125	DCPX125	DCPX125	DCPX126	DCPX126	DCPX126	
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	
U	DCPX125	DCPX125	DCPX126	DCPX126	DCPX127	DCPX128	DCPX128	DCPX128	
Fans: M									
°	DCPX132	DCPX133	DCPX133	DCPX134	DCPX134	DCPX134	DCPX135	DCPX135	
A	DCPX133	DCPX134	DCPX135	DCPX135	DCPX135	DCPX136	DCPX136	DCPX136	
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	
U	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX138	DCPX138	DCPX138	

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°A,E,L,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1800	RIFNRB2000
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1800	RIFNRB2000
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

A grey background indicates the accessory must be assembled in the factory

Ver	2200	2400	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Electric heater for the heat exchanger

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°,A,E,L,N,U	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

Ver	2200	2400	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ

°	GP2VNA	GP2VNA	GP2VNA	GP2VNA	GP3VN	GP3VNA	GP3VNA	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	GP2VNA	GP2VNA	GP3VN	GP3VNA	GP3VNA	GP3VNA	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VNA	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

Kit for low temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
°	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
A,L	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
E,U	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
N	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)

(1) With the accessory XLA do not use the DCPX.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	221,5	244,5	270,3	299,7	353,1	404,9	439,0	511,2	560,9	598,2	675,8	721,6	786,8	830,6	880,2	945,8	998,2
Input power	kW	73,3	83,1	94,1	110,3	117,5	135,4	155,1	175,7	194,0	216,6	236,5	256,0	270,3	292,6	314,7	329,4	355,2
Cooling total input current	A	128,3	143,1	160,0	185,5	201,6	229,9	260,8	299,7	329,8	366,5	404,6	434,0	459,4	498,2	534,6	562,9	606,0
EER	W/W	3,02	2,94	2,87	2,72	3,00	2,99	2,83	2,91	2,89	2,76	2,86	2,82	2,91	2,84	2,80	2,87	2,81
Water flow rate system side	l/h	38117	42076	46497	51565	60733	69640	75511	87913	96469	102882	116222	124099	135304	142812	151332	162608	171610
Pressure drop system side	kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - L

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	216,9	237,7	272,7	307,7	343,9	391,0	438,4	498,2	555,4	608,2	666,2	727,2	770,0	834,2	886,6	952,6	1004,1
Input power	kW	73,0	85,9	92,0	107,4	122,7	139,0	151,9	173,3	191,6	213,6	233,8	246,8	270,1	284,5	307,5	323,1	347,9
Cooling total input current	A	122,8	142,3	154,5	179,0	203,4	231,8	250,8	289,7	318,6	359,2	390,2	412,6	448,8	478,6	512,6	544,6	585,4
EER	W/W	2,97	2,77	2,97	2,87	2,80	2,81	2,89	2,87	2,90	2,85	2,85	2,95	2,85	2,93	2,88	2,95	2,89
Water flow rate system side	l/h	37323	40890	46905	52926	59137	67243	75380	85669	95497	104585	114564	125029	132382	143407	152424	163776	172631
Pressure drop system side	kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	224,1	252,2	283,7	326,1	361,2	411,7	462,2	519,2	576,0	633,3	697,6	757,5	805,8	867,0	928,7	980,8	1026,8
Input power	kW	70,6	80,9	90,2	104,7	115,3	131,8	147,6	166,3	183,5	203,1	223,3	240,5	256,5	277,0	297,0	314,4	330,3
Cooling total input current	A	123,9	139,9	158,8	181,8	198,2	224,1	252,4	283,8	316,2	348,7	386,3	417,6	441,6	475,9	513,3	541,6	567,7
EER	W/W	3,17	3,12	3,15	3,12	3,13	3,12	3,13	3,12	3,14	3,12	3,12	3,15	3,14	3,13	3,13	3,12	3,11
Water flow rate system side	l/h	38560	43394	48801	56076	62118	70789	79487	89271	99047	108893	119965	130235	138536	149047	159671	168621	176531
Pressure drop system side	kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	219,2	248,3	275,0	321,4	358,7	403,2	455,0	514,5	569,0	637,2	688,3	741,1	794,3	857,9	911,7	965,1	1019,4
Input power	kW	69,6	79,4	88,5	102,2	114,9	129,8	144,5	164,7	183,0	203,4	221,4	236,5	255,5	274,7	290,6	310,5	327,8
Cooling total input current	A	119,5	134,7	148,8	172,1	192,6	215,7	240,1	275,1	306,1	342,6	372,8	397,0	425,9	459,5	487,5	520,6	549,0
EER	W/W	3,15	3,13	3,11	3,15	3,12	3,11	3,15	3,12	3,11	3,13	3,11	3,13	3,11	3,12	3,14	3,11	3,11
Water flow rate system side	l/h	37709	42725	47302	55271	61679	69338	78240	88465	97840	109549	118323	127416	136570	147496	156743	165934	175268
Pressure drop system side	kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	227,6	257,6	286,5	329,6	369,8	414,6	466,9	529,2	594,0	655,1	716,9	765,5	815,3	879,0	940,9	999,7	1049,5
Input power	kW	68,8	77,7	86,8	99,5	111,7	126,1	140,9	159,5	179,0	197,8	215,3	229,4	248,9	265,7	282,3	302,5	319,5
Cooling total input current	A	124,3	138,5	152,9	176,0	195,6	218,0	244,0	278,3	311,7	347,7	377,4	401,2	431,5	463,1	493,9	527,9	556,4
EER	W/W	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,32	3,32	3,31	3,33	3,34	3,28	3,31	3,33	3,30	3,28
Water flow rate system side	l/h	39150	44308	49293	56689	63595	71301	80285	91002	102137	112618	123250	131615	140178	151126	161768	171875	180442
Pressure drop system side	kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C/7 °C (1)																		
Cooling capacity	kW	227,7	260,4	284,7	327,7	367,7	412,3	466,1	521,6	579,1	645,7	702,6	749,4	804,7	866,4	926,7	973,5	1029,9
Input power	kW	68,5	78,9	86,4	98,5	111,9	125,4	140,4	157,8	176,0	194,6	212,9	229,0	246,7	263,5	282,7	301,1	319,3
Cooling total input current	A	118,2	135,1	146,9	166,9	188,6	209,4	234,0	264,2	295,4	328,9	360,0	385,3	412,5	442,0	475,2	506,2	536,4
EER	W/W	3,32	3,30	3,30	3,33	3,29	3,29	3,32	3,31	3,29	3,32	3,30	3,27	3,26	3,29	3,28	3,23	3,23
Water flow rate system side	l/h	39166	44791	48971	56365	63233	70905	80150	89691	99568	111008	120788	128848	138355	148960	159327	167376	177077
Pressure drop system side	kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
SEER - 12/7 (EN14825:2018) with standard fans (1)																		
SEER	°	W/W	4,22	4,13	4,10	4,11	4,19	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,41	4,34	4,39	4,45	4,48	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	4,46	4,40	4,40	4,54	4,54	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	W/W	4,31	4,16	4,24	4,27	4,31	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	W/W	4,61	4,56	4,58	4,72	4,68	4,72	4,78	4,66	4,58	4,61	4,64	4,59	4,62	4,60	4,59	4,62
	U	W/W	4,51	4,51	4,51	4,63	4,64	4,65	4,69	4,61	4,56	4,57	4,59	4,58	4,56	4,59	4,57	4,56
Seasonal efficiency	°	%	166,0%	162,3%	161,0%	161,2%	164,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	173,5%	170,6%	172,4%	174,9%	176,0%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	%	175,6%	173,1%	173,1%	178,7%	178,5%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	%	169,4%	163,6%	166,8%	167,6%	169,2%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	%	181,3%	179,3%	180,0%	185,7%	184,1%	185,9%	188,2%	183,4%	180,3%	181,5%	181,6%	182,7%	180,6%	181,7%	180,9%	181,7%
	U	%	177,2%	177,4%	177,2%	182,1%	182,5%	183,1%	184,8%	181,4%	179,2%	179,9%	180,5%	180,3%	179,3%	180,6%	179,7%	179,5%
SEER - (EN14825:2018) 12/7 with inverter fans (3)																		
SEER	°	W/W	4,44	4,33	4,26	4,25	4,39	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,65	4,55	4,66	4,70	4,69	4,73	4,76	4,64	4,63	4,62	4,61	4,68	4,66	4,66	4,68	4,64
	E	W/W	4,75	4,67	4,62	4,81	4,81	4,76	4,88	4,73	4,67	4,69	4,74	4,69	4,71	4,74	4,80	4,72
	L	W/W	4,55	4,42	4,50	4,51	4,58	4,59	4,67	4,56	4,56	4,58	4,56	4,61	4,56	4,57	4,58	4,61
	N	W/W	4,85	4,79	4,83	4,96	4,93	4,97	5,03	4,93	4,82	4,88	4,82	4,89	4,80	4,84	4,83	4,73
	U	W/W	4,76	4,75	4,70	4,89	4,85	4,86	4,91	4,84	4,77	4,82	4,78	4,87	4,81	4,85	4,92	4,82
Seasonal efficiency	°	%	174,6%	170,1%	167,6%	167,1%	172,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	182,8%	179,1%	183,4%	185,0%	184,7%	186,2%	187,3%	182,7%	182,4%	181,7%	181,5%	184,2%	183,5%	183,3%	184,0%	182,7%
	E	%	187,0%	183,7%	182,0%	189,3%	189,6%	187,5%	192,3%	186,2%	183,9%	184,8%	186,4%	184,7%	185,3%	186,4%	189,1%	185,8%
	L	%	179,2%	173,8%	177,0%	177,5%	180,1%	180,4%	183,9%	179,5%	179,4%	180,1%	179,6%	181,3%	179,4%	179,9%	180,3%	181,6%
	N	%	191,1%	188,4%	190,3%	195,4%	194,2%	195,9%	198,1%	194,1%	189,9%	192,4%	190,0%	192,7%	189,1%	190,6%	190,2%	186,3%
	U	%	187,4%	187,1%	185,2%	192,5%	191,0%	191,3%	193,3%	190,7%	187,7%	189,6%	188,1%	191,9%	189,4%	191,1%	193,8%	190,0%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	°	W/W	5,08	4,98	4,92	4,82	5,20	5,26	5,03	4,91	4,97	4,63	4,91	4,84	4,86	4,77	4,72	4,85
	A	W/W	5,29	5,15	5,25	5,28	5,35	5,37	5,42	5,15	5,22	5,09	5,22	5,30	5,18	5,15	5,17	5,13
	E	W/W	5,36	5,24	5,28	5,40	5,43	5,37	5,54	5,21	5,22	5,21	5,30	5,33	5,14	5,17	5,22	5,17
	L	W/W	5,06	4,87	5,07	5,08	5,05	5,10	5,19	5,02	5,02	4,92	4,99	5,21	4,94	5,03	4,99	5,06
	N	W/W	5,57	5,47	5,50	5,66	5,61	5,65	5,73	5,48	5,48	5,44	5,54	5,48	5,32	5,37	5,37	5,29
	U	W/W	5,41	5,44	5,41	5,58	5,56	5,60	5,63	5,46	5,49	5,39	5,50	5,57	5,29	5,35	5,48	5,36
Seasonal efficiency	°	%	200,1%	196,0%	193,6%	189,9%	205,1%	207,3%	198,3%	193,3%	195,7%	182,0%	193,5%	190,6%	191,5%	187,9%	186,0%	191,0%
	A	%	208,4%	203,0%	206,8%	208,0%	211,1%	211,6%	213,6%	203,1%	205,7%	200,6%	205,6%	209,1%	204,0%	203,0%	203,6%	202,1%
	E	%	211,4%	206,4%	208,3%	213,0%	214,0%	211,8%	218,5%	205,5%	205,7%	205,3%	208,9%	210,3%	202,4%	203,9%	205,9%	203,7%
	L	%	199,4%	191,9%	199,7%	200,1%	199,1%	200,8%	204,4%	197,7%	197,6%	193,9%	196,4%	205,2%	194,5%	198,0%	196,4%	199,5%
	N	%	219,7%	215,8%	216,8%	223,4%	221,5%	223,0%	226,2%	216,0%	216,3%	214,6%	218,4%	216,3%	209,6%	211,6%	211,8%	208,5%
	U	%	213,4%	214,4%	213,3%	220,0%	219,5%	221,0%	222,2%	215,3%	216,4%	212,5%	216,9%	219,7%	208,7%	211,1%	216,1%	211,4%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	°	W/W	5,28	5,16	5,07	4,96	5,40	5,44	5,18	5,07	5,13	4,77	5,07	5,09	5,09	4,98	4,92	5,09
	A	W/W	5,50	5,35	5,50	5,51	5,55	5,55	5,63	5,34	5,44	5,30	5,42	5,41	5,43	5,38	5,43	5,36
	E	W/W	5,62	5,53	5,46	5,70	5,69	5,63	5,77	5,50	5,52	5,48	5,59	5,47	5,41	5,47	5,77	5,50
	L	W/W	5,34	5,14	5,35	5,33	5,37	5,34	5,47	5,26	5,32	5,20	5,26	5,35	5,20	5,25	5,21	5,32
	N	W/W	5,82	5,71	5,76	5,91	5,88	5,91	5,99	5,75	5,74	5,71	5,75	5,74	5,55	5,62	5,64	5,54
	U	W/W	5,65	5,67	5,59	5,82	5,76	5,80	5,83	5,67	5,69	5,61	5,68	5,77	5,59	5,66	5,85	5,70
Seasonal efficiency	°	%	208,1%	203,4%	199,8%	195,4%	212,9%	214,5%	204,1%	199,9%	202,1%	187,8%	199,6%	200,4%	200,4%	196,1%	193,9%	200,4%
	A	%	217,0%	210,9%	217,0%	217,5%	219,1%	219,1%	222,1%	210,5%	214,6%	209,1%	213,6%	213,4%	214,2%	212,0%	214,3%	211,5%
	E	%	221,9%	218,3%	215,3%	224,9%	224,5%	222,2%	227,7%	216,8%	217,7%	216,0%	220,6%	215,7%	213,4%	215,6%	227,9%	216,8%
	L	%	210,4%	202,7%	211,0%	210,2%	211,6%	210,4%	215,8%	207,4%	209,7%	205,1%	207,5%	211,0%	204,8%	206,9%	205,4%	209,9%
	N	%	229,9%	225,3%	227,5%	233,5%	232,1%	233,4%	236,4%	226,8%	226,4%	225,5%	227,1%	226,4%	219,1%	221,6%	222,4%	218,4%
	U	%	222,8%	233,7%	220,7%	229,9%	227,5%	228,8%	230,2%	223,8%	224,5%	221,5%	224,0%	227,8%	220,6%	223,4%	231,0%	225,0%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	°	W/W	5,39	5,21	5,17	5,03	5,35	5,50	5,52	5,57	5,52	5,51	5,51	5,51	5,53	5,54	5,55	5,50
	A	W/W	5,64	5,29	5,58	5,29	5,55	5,51	5,55	5,55	5,56	5,54	5,55	5,54	5,59	5,54	5,59	5,56
	E	W/W	5,56	5,21	5,46	5,25	5,52	5,55	5,58	5,54	5,52	5,55	5,55	5,55	5,52	5,55	5,52	5,55
	L	W/W	5,31	5,05	5,31	5,04	5,17	5,04	5,52	5,53	5,52	5,52	5,54	5,54	5,54	5,51	5,53	5,51
	N	W/W	5,69	5,54	5,66	5,59	5,64	5,61	5,66	5,57	5,62	5,59	5,64	5,60	5,50	5,63	5,69	5,51
	U	W/W	5,67	5,53	5,65	5,53	5,67	5,59	5,68	5,55	5,55	5,57	5,72	5,74	5,59	5,70	5,67	5,71

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(4) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

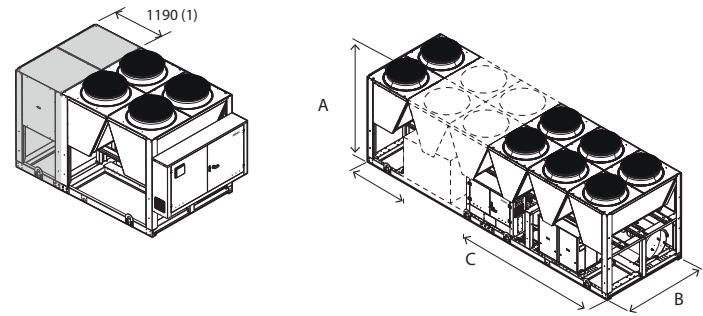
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	164,0	181,0	197,0	226,0	262,0	291,0	320,0	367,0	408,0	449,0	497,0	529,0	569,0	610,0	650,0	698,0	739,0
	A,L	A	177,0	193,0	222,0	252,0	281,0	310,0	352,0	393,0	446,0	487,0	547,0	592,0	625,0	666,0	720,0	761,0	802,0
	E,U	A	190,0	206,0	222,0	265,0	294,0	323,0	365,0	424,0	465,0	519,0	560,0	605,0	638,0	692,0	745,0	786,0	827,0
	N	A	203,0	219,0	235,0	277,0	307,0	336,0	383,0	437,0	478,0	531,0	572,0	618,0	651,0	704,0	758,0	799,0	840,0
Peak current (LRA)	°	A	353,0	408,0	424,0	477,0	513,0	625,0	654,0	637,0	678,0	719,0	766,0	799,0	838,0	879,0	920,0	967,0	1008,0
	A,L	A	366,0	421,0	450,0	503,0	532,0	644,0	686,0	662,0	716,0	757,0	816,0	862,0	895,0	936,0	989,0	1030,0	1071,0
	E,U	A	378,0	434,0	450,0	515,0	545,0	657,0	699,0	693,0	734,0	788,0	829,0	874,0	907,0	961,0	1015,0	1056,0	1096,0
	N	A	391,0	446,0	463,0	528,0	557,0	670,0	717,0	706,0	747,0	801,0	842,0	887,0	920,0	974,0	1027,0	1068,0	1109,0

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	° ,A,E,L,N,U	type	Scroll																
Compressor regulation	° ,A,E,L,N,U	Type	On/Off																
Number	° ,A,E,L,N,U	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	° ,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	° ,A,E,L,N,U	type	R410A																
System side heat exchanger																			
Type	° ,A,E,L,N,U	type	Shell and tube																
Number	° ,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																			
Connections (in/out)	° ,A,E,L,N,U	Type																	
Size (in)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"
	A,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"
Size (out)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"
	A,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"
Fan																			
Type	° ,A,E,L,N,U	type	Axial																
Fan motor	° ,A,U	type	Asynchronous																
	E,L,N	type	Asynchronous with phase cut																
	°	no.	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14
Number	A,L	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	°	m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
	A	m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
	E	m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
	L	m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
	N	m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
	U	m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	88,0	88,0	88,0	88,0	90,0	90,0	90,0	92,0	92,0	93,0	95,0	95,0	96,0	96,0	96,0	96,0	96,0
	A	dB(A)	88,0	88,0	90,0	90,0	90,0	90,0	91,0	92,0	94,0	94,0	96,0	96,0	96,0	96,0	97,0	97,0	97,0
	E	dB(A)	85,0	85,0	85,0	86,0	86,0	86,0	88,0	89,0	89,0	91,0	91,0	92,0	92,0	93,0	93,0	93,0	93,0
	L	dB(A)	83,0	83,0	85,0	85,0	85,0	86,0	86,0	88,0	89,0	90,0	90,0	91,0	91,0	92,0	92,0	93,0	93,0
	N	dB(A)	86,0	86,0	86,0	88,0	88,0	88,0	88,0	90,0	90,0	91,0	92,0	93,0	93,0	93,0	94,0	94,0	94,0
	U	dB(A)	90,0	90,0	90,0	91,0	91,0	91,0	93,0	94,0	95,0	96,0	96,0	97,0	97,0	98,0	98,0	98,0	98,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



(1) Additional module needed to contain the hydronic kit in sizes:
NRB 0800 - 0900 - 1400 - 1600, "H" versions
NRB 0800 - 1000 - 1100 - 1200, "HA, HL" versions

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	2780	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
	A,L	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
	°	kg	2350	2390	2470	2510	3000	3060	3090	3730	3810	3890	4450	4680	5310	5650	5730	6260	6380
Empty weight	A,L	kg	2390	2440	2930	3000	3040	3110	3640	3800	4290	4390	4830	5770	6020	6140	6620	6810	6890
	E,U	kg	2840	2890	2960	3490	3590	3610	4110	4560	4670	5460	5540	6170	6420	6930	7430	7510	7590
	N	kg	3350	3390	3470	3900	3990	4010	4470	5020	5120	5860	5940	6570	6820	7240	7830	7910	7990
Dimensions and weights with pump/s																			
A	°A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	3970 (1)	3970 (1)	3970 (1)	3970 (1)	3970	5160 (1)	5160 (1)	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
	A,L	mm	3970 (1)	3970 (1)	3970	5160 (1)	5160 (1)	5160 (1)	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	5160 (1)	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

(1) With additional module.

■ The dimensions shown in the table for units with a hydronic kit already include the additional module where necessary. For the weights, please contact the head office.

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0800H-3600H

Reversible air/water heat pump

Cooling capacity 196 ÷ 971 kW
Heating capacity 209 ÷ 1006 kW

- High efficiency also at partial loads
- Night mode
- HP floating: ESEER +7% with inverter fans
- Also available with Shell and tube heat exchanger



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

FEATURES

Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C. (for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1800 to 3600.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of

some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

GP_V: Anti-intrusion grid kit

BRC1: Condensate drip tray. Consider 1 for each V-block.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	°A,E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A,E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	°A,E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A,E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A,E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1000	AVX1000	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1006	AVX1006	AVX1010	AVX1010	AVX1018	AVX1021	AVX1029	AVX1049	AVX1049	AVX1049
A,L	AVX1000	AVX1004	AVX1004	AVX1004	AVX1004	AVX1006	AVX1006	AVX1010	AVX1010	AVX1016	AVX1016	AVX1026	AVX1029	AVX1036	AVX1036	AVX1042	AVX1042
E	AVX1004	AVX1006	AVX1006	AVX1006	AVX1006	AVX1010	AVX1013	AVX1024	AVX1024	AVX1033	AVX1033	AVX1039	AVX1039	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1008	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: AI, AJ																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: BA, BB, BC																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1008	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: BD, BE, BF, BG, BH, BI, BJ																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: DA, DB, DC																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1019	AVX1021	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1006	AVX1006	AVX1006	AVX1009	AVX1010	AVX1013	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: DD, DE, DF, DG, DH																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1019	AVX1022	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1007	AVX1007	AVX1007	AVX1009	AVX1011	AVX1014	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: DI, DJ																	
°	AVX1002	AVX1002	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1007	AVX1007	AVX1011	AVX1011	AVX1019	AVX1022	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1002	AVX1004	AVX1004	AVX1004	AVX1004	AVX1007	AVX1007	AVX1011	AVX1011	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1007	AVX1007	AVX1007	AVX1007	AVX1011	AVX1014	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: PA, PB, PC, PD, PE, PF, PG, PH																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1019	AVX1021	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1006	AVX1006	AVX1006	AVX1009	AVX1010	AVX1013	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: PI, PJ																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1019	AVX1022	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1007	AVX1007	AVX1007	AVX1009	AVX1011	AVX1014	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
Fans: °									
°	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132
A	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX133	DCPX133
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
Ver	2200	2400	2600	2800	3000	3200	3400	3600	
Fans: °									
°	DCPX133	DCPX133	DCPX134	DCPX134	DCPX135	DCPX135	DCPX135	DCPX135	
A	DCPX134	DCPX134	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX137	
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200
° A,E,L	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1800	RIFNRB2000
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1001	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

A grey background indicates the accessory must be assembled in the factory

Ver	2200	2400	2600	2800	3000	3200	3400	3600
° A,E,L	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
°	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN

A grey background indicates the accessory must be assembled in the factory

The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long, and they must mount the GP2VNA grids.

Condensate drip

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200
°	BRC1x2 (1)	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)
A,L	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x6 (1)
E	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x8 (1)

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

Ver	2400	2600	2800	3000	3200	3400	3600
°	BRC1x5 (1)	BRC1x6 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)
A	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)
E	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)	BRC1x10 (1)	BRC1x10 (1)	BRC1x11 (1)	BRC1x11 (1)
L	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x10 (1)	BRC1x10 (1)

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating field
	° Standard mechanic thermostatic valve
	X Electronic thermostatic expansion valve (1)
9	Model
	H Heat pump
10	Heat recovery
	° Without heat recovery
	D With desuperheater (2)
11	Version
	° Standard
	A High efficiency
	E Silenced high efficiency
	L Standard silenced
12	Coils
	° Copper-aluminium
	R Copper-copper
	S Copper-Tinned copper
	V Copper-painted aluminium
13	Fans
	° Standard
	J Inverter
14	Power supply
	° 400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	00 Without hydronic kit
	Kit with n° 1 pump (3)
	PA Pump A
	PB Pump B
	PC Pump C
	PD Pump D
	PE Pump E
	PF Pump F
	PG Pump G
	PH Pump H

Field	Description
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump
	Kit with storage tank and n° 1 pump
AA	Storage tank and pump A
AB	Storage tank and pump B
AC	Storage tank and pump C
AD	Storage tank and pump D
AE	Storage tank and pump E
AF	Storage tank and pump F
AG	Storage tank and pump G
AH	Storage tank and pump H
AI	Storage tank and pump I
AJ	Storage tank and pump J
	Kit with storage tank and n° 1 pump + stand-by pump
BA	Storage tank with pump A + stand-by pump
BB	Storage tank with pump B + stand-by pump
BC	Storage tank with pump C + stand-by pump
BD	Storage tank with pump D + stand-by pump
BE	Storage tank with pump E + stand-by pump
BF	Storage tank with pump F + stand-by pump
BG	Storage tank with pump G + stand-by pump
BH	Storage tank with pump H + stand-by pump
BI	Storage tank with pump I + stand-by pump
BJ	Storage tank with pump J + stand-by pump

(1) Electronic thermostatic as standard from size 1800÷3600.

(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	196,4	218,0	251,8	279,2	314,2	353,8	389,0	456,7	501,9	568,7	616,1	654,4	718,3	767,3	805,3	869,8	914,8
Input power	kW	74,1	86,1	91,7	107,9	119,5	141,6	155,6	172,6	193,2	211,2	231,1	253,0	266,2	291,4	315,7	327,9	353,4
Cooling total input current	A	131,0	150,0	163,0	189,0	207,0	242,0	263,0	296,0	331,0	365,0	398,0	437,0	456,0	504,0	545,0	564,0	606,0
EER	W/W	2,65	2,53	2,74	2,59	2,63	2,50	2,50	2,65	2,60	2,69	2,67	2,59	2,70	2,63	2,55	2,65	2,59
Water flow rate system side	l/h	33794	37515	43314	48020	54046	60853	66910	78531	86311	97783	105939	112529	123524	131922	138449	149552	157281
Pressure drop system side	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	215,0	237,4	275,0	306,0	343,9	366,2	412,6	478,4	527,7	592,0	643,2	688,4	749,9	796,0	836,5	906,8	948,0
Input power	kW	70,2	77,7	89,6	99,8	112,3	121,7	137,0	157,3	174,3	193,9	210,7	227,9	245,2	260,8	275,8	295,9	311,8
Heating total input current	A	125,0	138,0	158,0	175,0	195,0	212,0	236,0	274,0	304,0	340,0	369,0	397,0	427,0	458,0	484,0	519,0	549,0
COP	W/W	3,06	3,06	3,07	3,07	3,06	3,01	3,01	3,04	3,03	3,05	3,05	3,02	3,06	3,03	3,03	3,06	3,04
Water flow rate system side	l/h	37311	41207	47745	53116	59705	63585	71640	83071	91620	102803	111681	119537	130226	138243	145280	157484	164648
Pressure drop system side	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	197,9	227,9	247,7	275,2	301,1	359,1	392,2	453,8	495,0	552,5	592,9	651,2	681,3	748,5	784,2	848,0	882,7
Input power	kW	75,3	78,6	89,8	106,2	123,2	133,0	153,4	169,0	193,9	208,9	234,1	246,2	269,6	284,8	310,0	326,5	352,4
Cooling total input current	A	126,0	133,0	150,0	176,0	203,0	220,0	252,0	280,0	321,0	347,0	390,0	409,0	446,0	473,0	515,0	543,0	585,0
EER	W/W	2,63	2,90	2,76	2,59	2,44	2,70	2,56	2,69	2,55	2,64	2,53	2,65	2,53	2,63	2,53	2,60	2,50
Water flow rate system side	l/h	34040	39194	42596	47339	51779	61758	67431	78030	85114	95003	101921	111950	117122	128680	134820	145791	151753
Pressure drop system side	kPa	14	18	15	19	14	20	18	23	23	29	17	21	23	23	25	29	32
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	209,8	250,3	274,3	304,8	334,3	394,3	431,0	497,4	543,0	609,3	654,3	717,5	757,3	825,0	869,1	937,0	980,9
Input power	kW	67,1	79,5	87,1	98,9	108,2	126,2	136,7	158,3	173,1	194,8	208,8	228,3	244,3	265,2	280,3	299,5	317,4
Heating total input current	A	119,0	139,0	152,0	171,0	187,0	216,0	234,0	272,0	299,0	336,0	363,0	394,0	420,0	457,0	484,0	518,0	549,0
COP	W/W	3,13	3,15	3,15	3,08	3,09	3,12	3,15	3,14	3,14	3,13	3,13	3,14	3,10	3,11	3,10	3,13	3,09
Water flow rate system side	l/h	36429	43447	47619	52924	58032	68469	74854	86379	94306	105817	113644	124618	131514	143298	150956	162747	170364
Pressure drop system side	kPa	15	22	19	23	17	24	21	28	28	35	21	26	29	28	31	36	39

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	206,2	243,8	266,9	297,0	329,2	385,5	425,3	488,4	538,3	601,4	651,3	708,6	745,3	815,1	859,0	928,0	971,4
Input power	kW	71,8	78,2	88,1	102,2	117,2	129,2	147,2	163,7	184,8	201,3	222,3	237,4	257,9	274,4	295,7	312,0	333,6
Cooling total input current	A	127,0	141,0	157,0	179,0	203,0	225,0	254,0	285,0	321,0	352,0	389,0	416,0	448,0	479,0	515,0	546,0	582,0
EER	W/W	2,87	3,12	3,03	2,91	2,81	2,98	2,89	2,98	2,91	2,99	2,93	2,99	2,89	2,97	2,91	2,97	2,91
Water flow rate system side	l/h	35459	41942	45909	51076	56619	66291	73125	83982	92547	103407	111966	121819	128141	140122	147682	159542	167008
Pressure drop system side	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	214,3	254,4	279,0	310,5	341,2	400,9	438,9	506,0	553,2	620,0	666,5	730,0	771,1	840,0	885,5	954,2	999,6
Input power	kW	66,6	79,3	86,7	97,1	106,2	124,8	137,1	157,5	171,8	193,5	207,0	226,8	240,1	260,9	275,3	297,4	311,6
Heating total input current	A	120,0	142,0	155,0	172,0	187,0	219,0	240,0	277,0	303,0	342,0	368,0	401,0	421,0	460,0	485,0	526,0	550,0
COP	W/W	3,22	3,21	3,22	3,20	3,21	3,21	3,20	3,21	3,22	3,20	3,22	3,22	3,21	3,22	3,22	3,21	3,21
Water flow rate system side	l/h	37204	44148	48436	53909	59226	69618	76226	87877	96076	107669	115772	126793	133932	145898	153804	165737	173613
Pressure drop system side	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	209,6	241,7	264,7	294,5	326,7	377,8	432,4	489,4	540,5	597,8	647,7	699,1	734,9	798,7	841,0	904,0	944,9
Input power	kW	67,3	77,4	85,0	98,1	112,4	125,3	139,1	157,0	177,4	192,3	215,2	231,2	250,7	269,1	289,6	308,2	327,5
Cooling total input current	A	115,0	132,0	144,0	164,0	187,0	208,0	230,0	261,0	296,0	322,0	362,0	387,0	417,0	449,0	483,0	515,0	547,0
EER	W/W	3,12	3,12	3,11	3,00	2,91	3,02	3,11	3,12	3,05	3,11	3,01	3,02	2,93	2,97	2,90	2,93	2,89
Water flow rate system side	l/h	36053	41586	45538	50642	56185	64960	74341	84155	92932	102793	111352	120183	126344	137316	144576	155409	162455
Pressure drop system side	kPa	15	20	18	22	16	22	21	27	27	33	21	24	27	27	29	33	36
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	223,4	258,1	283,7	316,7	349,3	403,2	458,7	520,7	571,9	634,1	683,9	741,3	784,2	848,2	895,3	960,1	1006,8
Input power	kW	69,3	80,5	87,9	98,5	109,0	126,1	143,1	162,7	177,1	198,2	211,7	230,0	244,9	264,9	279,5	299,5	315,3
Heating total input current	A	122,0	140,0	153,0	170,0	188,0	216,0	244,0	278,0	305,0	341,0	367,0	396,0	420,0	456,0	482,0	517,0	544,0
COP	W/W	3,22	3,21	3,23	3,22	3,20	3,20	3,21	3,20	3,23	3,20	3,23	3,22	3,20	3,20	3,20	3,21	3,19
Water flow rate system side	l/h	38791	44787	49248	54989	60660	70010	79655	90422	99327	110122	118791	128748	136201	147319	155503	166760	174868
Pressure drop system side	kPa	17	23	20	25	19	25	24	31	31	38	23	27	31	30	33	38	41

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	168,6	185,0	209,8	239,2	268,5	297,5	326,5	375,9	416,9	466,3	507,2	548,6	581,4	630,9	671,8	712,7	753,6
	A,L	A	168,6	193,5	209,8	239,2	268,5	306,0	335,0	384,4	425,4	474,8	515,7	557,1	589,9	639,4	680,3	729,7	770,6
	E	A	177,1	202,0	218,3	247,7	277,0	314,5	352,0	401,4	442,4	491,8	532,7	574,1	606,9	656,4	697,3	752,6	793,5
Peak current (LRA)	°	A	357,2	412,4	437,2	489,9	519,2	631,7	660,7	645,2	686,2	735,6	776,5	817,9	850,7	900,2	941,1	982,0	1022,9
	A,L	A	357,2	420,9	437,2	489,9	519,2	640,2	669,2	653,7	694,7	744,1	785,0	826,4	859,2	908,7	949,6	999,0	1039,9
	E	A	365,7	429,4	445,7	498,4	527,7	648,7	686,2	670,7	711,7	761,1	802,0	843,4	876,2	925,7	966,6	1021,9	1062,8

ENERGY INDICES (REG. 2016/2281 EU)

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	203	224	260	289	325	346	296	343	379	425	462	495	539	571	600	651	680
SCOP		3,65	3,65	3,65	3,68	3,65	3,60	3,73	3,73	3,80	3,73	3,80	3,68	3,80	3,68	3,75	3,88	3,90
ηsh	%	143.0%	143.0%	143.0%	144.0%	143.0%	146.0%	146.0%	146.0%	149.0%	146.0%	149.0%	144.0%	149.0%	144.0%	147.0%	152.0%	153.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	148,6%	143,4%	152,2%	149,4%	153,4%	149,0%	152,6%	153,8%	149,0%	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,67	4,76	4,64	4,70	4,66	4,56	4,66	4,65
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	183,9%	187,3%	182,4%	184,9%	183,4%	179,3%	183,4%	182,8%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,88	5,02	5,07	4,92	4,96	4,96	4,92	4,96
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	192,3%	197,7%	199,7%	193,6%	195,3%	195,4%	193,7%	195,3%
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	197	235	258	286	314	370	306	353	385	433	464	509	538	586	617	666	697
SCOP		3,73	3,75	3,75	3,68	3,68	3,73	3,93	3,83	3,95	3,83	3,93	3,88	3,88	3,75	3,85	3,95	3,98
ηsh	%	146.0%	147.0%	147.0%	144.0%	144.0%	146.0%	154.0%	150.0%	155.0%	150.0%	154%	152.0%	152.0%	147.0%	151.0%	155.0%	156.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	150,2%	157,4%	153,8%	153,0%	149,8%	159,0%	156,6%	158,6%	151,8%	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,72	4,67	4,79	4,63	4,73	4,67	4,75	4,70
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,7%	183,6%	188,7%	182,3%	186,3%	183,6%	187,0%	185,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,08	5,11	5,10	4,95	5,04	4,96	5,09	5,02
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	200,3%	201,2%	201,1%	195,0%	198,4%	195,2%	200,4%	197,7%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	196	233	255	284	312	367	304	351	384	430	462	506	535	582	614	662	693
SCOP		3,03	3,08	3,03	3,08	3,03	3,10	3,13	3,08	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,15
ηsh	%	118,0%	120,0%	118,0%	120,0%	118,0%	121,0%	122,0%	120,0%	129,0%	120,0%	123,0%	120,0%	122,0%	118,0%	125,0%	125,0%	123,0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	155,4%	162,2%	160,6%	160,6%	159,8%	166,2%	165,8%	165,8%	161,0%	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,56	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	179,2%	181,0%	179,2%
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,96	5,01	5,02	4,84	4,92	4,87	4,95	4,94
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	195,3%	197,4%	197,8%	190,5%	193,9%	191,8%	195,0%	194,6%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,54	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	178,4%	181,0%	179,2%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	204	236	259	290	320	369	318	361	397	440	474	514	544	588	621	666	698
SCOP		3,05	3,08	3,05	3,10	3,03	3,08	3,13	3,05	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,13
ηsh	%	119,0%	120,0%	119,0%	121,0%	118,0%	120,0%	122,0%	119,0%	129,0%	120,0%	123,0%	120,0%	122,0%	118,0%	125,0%	125,0%	122,0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	163,4%	163,0%	164,2%	164,6%	163,4%	167,8%	172,6%	171,4%	165,8%	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,17	5,20	5,16	5,01	5,04	4,99	5,03	5,03
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	203,6%	204,9%	203,2%	197,2%	198,6%	196,5%	198,1%	198,1%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

FANS

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Fans: °																		
Fan																		
Type	°A,E,L	type		Axial														
Fan motor	°A	type		Asynchronous														
	E,L	type		Asynchronous with phase cut														
Number	°	no.	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14
	A,L	no.	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18
	E	no.	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22
	°	m³/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000
Air flow rate	A	m³/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000
	E	m³/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000
	L	m³/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000

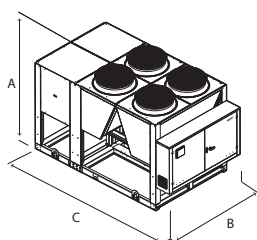
GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°A,E,L	type	Scroll																
Compressor regulation	°A,E,L	Type	On-Off																
Number	°A,E,L	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	°A,E,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°A,E,L	type	R410A																
Refrigerant charge	°	kg	41,0	42,0	55,0	56,0	56,0	58,0	58,0	84,0	84,0	100,0	100,0	113,0	116,0	138,0	138,0	138,0	143,0
	A,L	kg	43,0	56,0	58,0	58,0	60,0	84,0	87,0	100,0	103,0	116,0	125,0	138,0	138,0	166,0	166,0	183,0	183,0
	E	kg	56,0	80,0	82,0	82,0	84,0	97,0	113,0	137,0	140,0	153,0	162,0	175,0	175,0	203,0	203,0	220,0	220,0
System side heat exchanger																			
Type	°A,E,L	type	Brazed plate																
System side hydraulic connections																			
Connections (in/out)	°A,E,L	Type	Grooved joints																
Sizes (in/out)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"
	A,E,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	90,0	89,5	91,6	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	95,9	95,9
	A	dB(A)	90,0	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	96,6	96,6	97,2	97,2
	E	dB(A)	84,6	86,1	86,1	86,1	86,1	87,2	88,2	89,4	89,9	91,1	91,6	92,2	92,2	92,7	92,7	93,2	93,2
	L	dB(A)	82,6	84,6	84,6	84,6	84,6	86,1	86,1	87,7	88,2	89,6	90,1	90,9	90,9	91,6	91,6	92,1	92,1
Sound pressure level (10 m)	°	dB(A)	57,0	57,4	59,3	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,2	63,2
	A	dB(A)	57,0	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,7	63,7	64,2	64,2
	E	dB(A)	52,0	53,7	53,7	53,7	53,7	54,7	55,5	56,7	57,2	58,2	58,7	59,2	59,2	59,6	59,6	60,0	60,0
	L	dB(A)	50,0	52,4	52,4	52,4	52,4	53,8	53,8	55,2	55,7	57,0	57,5	58,2	58,2	58,7	58,7	59,1	59,1

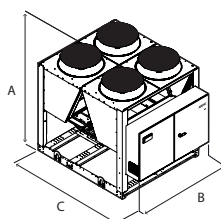
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

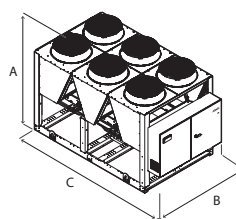
NRB0800 H°/HL/HA (1)
NRB0900 H° (1)



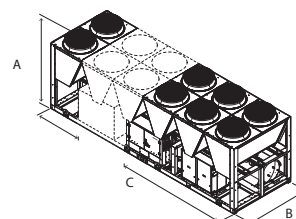
NRB0800 H°/HL/HA
NRB0900 H°



NRB0800 HE
NRB0900÷1200 HL/HA
NRB1000÷1600 H°



NRB0900÷3600 HE
NRB1400÷3600 HL/HA
NRB1800÷3600 H°



Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	3970	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
	A,L	mm	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090
Empty weight	°	kg	2520	2580	3160	3210	3250	3310	3340	4120	4200	4860	4940	5640	5930	6740	6820	6920	7070
	A,L	kg	2550	3130	3200	3240	3320	3970	4040	4700	4820	5340	5620	6410	6660	7340	7420	8040	8120
	E	kg	3080	3770	3840	3870	3950	4510	5020	5760	5890	6460	6690	7420	7670	8300	8380	9010	9090

The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0800H-3600H

Reversible air/water heat pump with shell and tube heat exchanger

Cooling capacity 196 ÷ 971 kW
Heating capacity 209 ÷ 1006 kW

- Shell and tube heat exchanger
- High efficiency also at partial loads
- Night mode
- HP floating: ESEER +7% with inverter fans



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

They are outdoor units with axial fan scroll compressors and Shell and tube exchangers.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

L Standard silenced

FEATURES

Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C.
(for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1800 to 3600.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
 - The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
 - The temperature control takes place with the integral proportional logic, based on the water output temperature.
 - **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
 - **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.
- Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER48SP1	°A,E,L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AERNET	°A,E,L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FL	°A,E,L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
MULTICHILLER_EVO	°A,E,L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PGD1	°A,E,L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1119	AVX1117	AVX1121	AVX1121	AVX1121
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1115	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118
E	AVX1004	AVX1123	AVX1123	AVX1123	AVX1123	AVX1124	AVX1119	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118	AVX1120	AVX1120	AVX1118	AVX1122
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	AVX (1)	AVX (1)	AVX1004	AVX1004	AVX1004	AVX (1)	AVX (1)	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1119	AVX1117	AVX1121	AVX1121	AVX1121
A,L	AVX (1)	AVX1004	AVX (1)	AVX (1)	AVX (1)	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1115	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118
E	AVX1004	AVX1123	AVX1123	AVX1123	AVX1123	AVX1124	AVX1119	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118	AVX1120	AVX1120	AVX1118	AVX1122

(1) Contact us.

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132
A	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX133	DCPX133
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
Ver	2200	2400	2600	2800	3000	3200	3400	3600	
°	DCPX133	DCPX133	DCPX134	DCPX134	DCPX135	DCPX135	DCPX135	DCPX135	
A	DCPX134	DCPX134	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX137	
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200
°A,E,L	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1800	RIFNRB2000
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1001	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

A grey background indicates the accessory must be assembled in the factory

Ver	2200	2400	2600	2800	3000	3200	3400	3600
°A,E,L	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP4VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	GP2VNA	GP2VNA	GP3VN	GP3VN	GP3VN	GP3VNA	GP3VNA	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	GP2VNA	GP3VN	GP3VNA	GP3VNA	GP3VNA	GP4VN	GP4VN	GP5VN	GP4VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	GP2VNA	GP3VN	GP3VNA	GP3VNA	GP3VNA	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN

A grey background indicates the accessory must be assembled in the factory

GP_V: Anti-intrusion grid kit

BRC1: Condensate drip tray. Consider 1 for each V-block.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

Condensate drip

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200
°	BRC1x2 (1)	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)
A,L	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x5 (1)	BRC1x6 (1)
E	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

Ver	2400	2600	2800	3000	3200	3400	3600
°	BRC1x5 (1)	BRC1x6 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)
A	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)
E	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)	BRC1x10 (1)	BRC1x10 (1)	BRC1x11 (1)	BRC1x11 (1)
L	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x10 (1)	BRC1x10 (1)

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NRB
	Size
4,5,6,7	0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating yeld
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
9	Model
H	Heat pump
W	Heat pump with shell and tube heat exchanger
10	Heat recovery
°	Without heat recovery
D	With desuperheater (1)
11	Version
°	Standard
A	High efficiency
E	Silenced high efficiency
L	Standard silenced
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
°	Standard
J	Inverter

Field	Description
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump

(1) The desuperheater can only be used with cold running.

Compatibility of models with hydronic units available with a configurator

Version		800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
standard	H°	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•
Standard silenced	HL	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
High efficiency	HA	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Silenced high efficiency	HE	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	196,4	218,0	251,8	279,2	314,2	353,8	389,0	456,7	501,9	568,7	616,1	654,4	718,3	767,3	805,3	869,8	914,8
Input power	kW	74,1	86,1	91,7	107,9	119,5	141,6	155,6	172,6	193,2	211,2	231,1	253,0	266,2	291,4	315,7	327,9	353,4
Cooling total input current	A	131,0	150,0	163,0	189,0	207,0	242,0	263,0	296,0	331,0	365,0	398,0	437,0	456,0	504,0	545,0	564,0	606,0
EER	W/W	2,65	2,53	2,74	2,59	2,63	2,50	2,50	2,65	2,60	2,69	2,67	2,59	2,70	2,63	2,55	2,65	2,59
Water flow rate system side	l/h	33794	37515	43314	48020	54046	60853	66910	78531	86311	97783	105939	112529	123524	131922	138449	149552	157281
Pressure drop system side	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	215,0	237,4	275,0	306,0	343,9	366,2	412,6	478,4	527,7	592,0	643,2	688,4	749,9	796,0	836,5	906,8	948,0
Input power	kW	70,2	77,7	89,6	99,8	112,3	121,7	137,0	157,3	174,3	193,9	210,7	227,9	245,2	260,8	275,8	295,9	311,8
Heating total input current	A	125,0	138,0	158,0	175,0	195,0	212,0	236,0	274,0	304,0	340,0	369,0	397,0	427,0	458,0	484,0	519,0	549,0
COP	W/W	3,06	3,06	3,07	3,07	3,06	3,01	3,01	3,04	3,03	3,05	3,05	3,02	3,06	3,05	3,03	3,06	3,04
Water flow rate system side	l/h	37311	41207	47745	53116	59705	63585	71640	83071	91620	102803	111681	119537	130226	138243	145280	157484	164648
Pressure drop system side	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14S11:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	197,9	227,9	247,7	275,2	301,1	359,1	392,2	453,8	495,0	552,5	592,9	651,2	681,3	748,5	784,2	848,0	882,7
Input power	kW	75,3	78,6	89,8	106,2	123,2	133,0	153,4	169,0	193,9	208,9	234,1	246,2	269,6	284,8	310,0	326,5	352,4
Cooling total input current	A	126,0	133,0	150,0	176,0	203,0	220,0	252,0	280,0	321,0	347,0	390,0	409,0	446,0	473,0	515,0	543,0	585,0
EER	W/W	2,63	2,90	2,76	2,59	2,44	2,70	2,56	2,69	2,55	2,64	2,53	2,65	2,53	2,63	2,53	2,60	2,50
Water flow rate system side	l/h	34040	39194	42596	47339	51779	61758	67431	78030	85114	95003	101921	111950	117122	128680	134820	145791	151753
Pressure drop system side	kPa	14	18	15	19	14	20	18	23	23	29	17	21	23	23	25	29	32
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	209,8	250,3	274,3	304,8	334,3	394,3	431,0	497,4	543,0	609,3	654,3	717,5	757,3	825,0	869,1	937,0	980,9
Input power	kW	67,1	79,5	87,1	98,9	108,2	126,2	136,7	158,3	173,1	194,8	208,8	228,3	244,3	265,2	280,3	299,5	317,4
Heating total input current	A	119,0	139,0	152,0	171,0	187,0	216,0	234,0	272,0	299,0	336,0	363,0	394,0	420,0	457,0	484,0	518,0	549,0
COP	W/W	3,13	3,15	3,15	3,08	3,09	3,12	3,15	3,14	3,14	3,13	3,13	3,14	3,10	3,11	3,10	3,13	3,09
Water flow rate system side	l/h	36429	43447	47619	52924	58032	68469	74854	86379	94306	105817	113644	124618	131534	143298	150956	162747	170364
Pressure drop system side	kPa	15	22	19	23	17	24	21	28	28	35	21	26	29	28	31	36	39

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14S11:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	206,2	243,8	266,9	297,0	329,2	385,5	425,3	488,4	538,3	601,4	651,3	708,6	745,3	815,1	859,0	928,0	971,4
Input power	kW	71,8	78,2	88,1	102,2	117,2	129,2	147,2	163,7	184,8	201,3	222,3	237,4	257,9	274,4	295,7	312,0	333,6
Cooling total input current	A	127,0	141,0	157,0	179,0	203,0	225,0	254,0	285,0	321,0	352,0	389,0	416,0	448,0	479,0	515,0	546,0	582,0
EER	W/W	2,87	3,12	3,03	2,91	2,81	2,98	2,89	2,98	2,91	2,99	2,93	2,99	2,89	2,97	2,91	2,97	2,91
Water flow rate system side	l/h	35459	41942	45909	51076	56619	66291	73125	83982	92547	103407	111966	121819	128141	140122	147682	159542	167008
Pressure drop system side	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	214,3	254,4	279,0	310,5	341,2	400,9	438,9	506,0	553,2	620,0	666,5	730,0	771,1	840,0	885,5	954,2	999,6
Input power	kW	66,6	79,3	86,7	97,1	106,2	124,8	137,1	157,5	171,8	193,5	207,0	226,8	240,1	260,9	275,3	297,4	311,6
Heating total input current	A	120,0	142,0	155,0	172,0	187,0	219,0	240,0	277,0	303,0	342,0	368,0	401,0	421,0	460,0	485,0	526,0	550,0
COP	W/W	3,22	3,21	3,22	3,20	3,21	3,21	3,20	3,21	3,22	3,20	3,22	3,22	3,21	3,22	3,22	3,21	3,21
Water flow rate system side	l/h	37204	44148	48436	53909	59226	69618	76226	87877	96076	107669	115772	126793	133932	145898	153804	165737	173613
Pressure drop system side	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14S11:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	209,6	241,7	264,7	294,5	326,7	377,8	432,4	489,4	540,5	597,8	647,7	699,1	734,9	798,7	841,0	904,0	944,9
Input power	kW	67,3	77,4	85,0	98,1	112,4	125,3	139,1	157,0	177,4	192,3	215,2	231,2	250,7	269,1	289,6	308,2	327,5
Cooling total input current	A	115,0	132,0	144,0	164,0	187,0	208,0	230,0	261,0	296,0	322,0	362,0	387,0	417,0	449,0	483,0	515,0	547,0
EER	W/W	3,12	3,12	3,11	3,00	2,91	3,02	3,11	3,12	3,05	3,11	3,01	3,02	2,93	2,97	2,90	2,93	2,89
Water flow rate system side	l/h	36053	41586	45538	50642	56185	64960	74341	84155	92932	102793	111352	120183	126344	137316	144576	155409	162455
Pressure drop system side	kPa	15	20	18	22	16	22	21	27	27	33	21	24	27	27	29	33	36
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	223,4	258,1	283,7	316,7	349,3	403,2	458,7	520,7	571,9	634,1	683,9	741,3	784,2	848,2	895,3	960,1	1006,8
Input power	kW	69,3	80,5	87,9	98,5	109,0	126,1	143,1	162,7	177,1	198,2	211,7	230,0	244,9	264,9	279,5	299,5	315,3
Heating total input current	A	122,0	140,0	153,0	170,0	188,0	216,0	244,0	278,0	305,0	341,0	367,0	396,0	420,0	456,0	482,0	517,0	544,0
COP	W/W	3,22	3,21	3,23	3,22	3,20	3,20	3,21	3,20	3,23	3,20	3,23	3,22	3,20	3,20	3,20	3,21	3,19
Water flow rate system side	l/h	38791	44787	49248	54989	60660	70010	79655	90422	99327	110122	118791	128748	136201	147319	155503	166760	174868
Pressure drop system side	kPa	17	23	20	25	19	25	24	31	31	38	23	27	31	30	33	38	41

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																		
Maximum current (FLA)	°	A	168,6	185,0	209,8	239,2	268,5	297,5	326,5	375,9	416,9	466,3	507,2	548,6	581,4	630,9	671,8	712,7
	A,L	A	168,6	193,5	209,8	239,2	268,5	306,0	335,0	384,4	425,4	474,8	515,7	557,1	589,9	639,4	680,3	729,7
	E	A	177,1	202,0	218,3	247,7	277,0	314,5	352,0	401,4	442,4	491,8	532,7	574,1	606,9	656,4	697,3	752,6
Peak current (LRA)	°	A	357,2	412,4	437,2	489,9	519,2	631,7	660,7	645,2	686,2	735,6	776,5	817,9	850,7	900,2	941,1	982,0
	A,L	A	357,2	420,9	437,2	489,9	519,2	640,2	669,2	653,7	694,7	744,1	785,0	826,4	859,2	908,7	949,6	999,0
	E	A	365,7	429,4	445,7	498,4	527,7	648,7	686,2	670,7	711,7	761,1	802,0	843,4	876,2	925,7	966,6	1021,9

ENERGY INDICES (REG. 2016/2281 EU)**NRB H°**

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	203	224	260	289	325	346	296	343	379	425	462	495	539	571	600	651	680
SCOP		3,65	3,65	3,65	3,68	3,65	3,60	3,73	3,73	3,80	3,73	3,80	3,68	3,80	3,68	3,75	3,88	3,90
ηsh	%	143.0%	143.0%	143.0%	144.0%	143.0%	146.0%	146.0%	146.0%	149.0%	146.0%	149.0%	144.0%	149.0%	144.0%	147.0%	152.0%	153.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	148,6%	143,4%	152,2%	149,4%	153,4%	149,0%	152,6%	153,8%	149,0%	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - 23/18 (EN14825:2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,67	4,76	4,64	4,70	4,66	4,56	4,66	4,65
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	183,9%	187,3%	182,4%	184,9%	183,4%	179,3%	183,4%	182,8%
SEER - 23/18 (EN14825:2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,88	5,02	5,07	4,92	4,96	4,96	4,92	4,96
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	192,3%	197,7%	199,7%	193,6%	195,3%	195,4%	193,7%	195,3%
SEPR - (EN14825:2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51
SEPR - (EN14825:2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12 °C / 7 °C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	197	235	258	286	314	370	306	353	385	433	464	509	538	586	617	666	697
SCOP		3,73	3,75	3,75	3,68	3,68	3,73	3,93	3,83	3,95	3,83	3,93	3,88	3,88	3,75	3,85	3,95	3,98
ηsh	%	146.0%	147.0%	147.0%	144.0%	144.0%	146.0%	154.0%	150.0%	155.0%	150.0%	154%	152.0%	152.0%	147.0%	151.0%	155.0%	156.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	150,2%	157,4%	153,8%	153,0%	149,8%	159,0%	156,6%	158,6%	151,8%	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,72	4,67	4,79	4,63	4,73	4,67	4,75	4,70
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,7%	183,6%	188,7%	182,3%	186,3%	183,6%	187,0%	185,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,08	5,11	5,10	4,95	5,04	4,96	5,09	5,02
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	200,3%	201,2%	201,1%	195,0%	198,4%	195,2%	200,4%	197,7%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	196	233	255	284	312	367	304	351	384	430	462	506	535	582	614	662	693
SCOP		3,03	3,08	3,03	3,08	3,03	3,10	3,13	3,08	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,15
ηsh	%	118.0%	120.0%	118.0%	120.0%	118.0%	121.0%	122.0%	120.0%	129.0%	120.0%	123.0%	120.0%	122.0%	118.0%	125.0%	125.0%	123.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	155,4%	162,2%	160,6%	160,6%	159,8%	166,2%	165,8%	165,8%	161,0%	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,56	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	179,2%	181,0%	179,2%
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,96	5,01	5,02	4,84	4,92	4,87	4,95	4,94
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	195,3%	197,4%	197,8%	190,5%	193,9%	191,8%	195,0%	194,6%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,54	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	178,4%	181,0%	179,2%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(5) Calculation performed with FIXED water flow rate.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ° 400 kW (1)																		
Pdesignh	kW	204	236	259	290	320	369	318	361	397	440	474	514	544	588	621	666	698
SCOP		3,05	3,08	3,05	3,10	3,03	3,08	3,13	3,05	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,13
ηsh	%	119,0%	120,0%	119,0%	121,0%	118,0%	120,0%	122,0%	119,0%	129,0%	120,0%	123,0%	120,0%	122,0%	118,0%	125,0%	125,0%	122,0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
Seasonal efficiency	%	163,4%	163,0%	164,2%	164,6%	163,4%	167,8%	172,6%	171,4%	165,8%	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)	-(3)
SEER - (EN14825:2018) 12/7 with inverter fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEER - 23/18 (EN14825: 2018) with standard fans (5)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,17	5,20	5,16	5,01	5,04	4,99	5,03	5,03
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	203,6%	204,9%	203,2%	197,2%	198,6%	196,5%	198,1%	198,1%
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEPR - (EN14825: 2018) High temperature with standard fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55
SEPR - (EN14825: 2018) High temperature with inverter fans (5)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

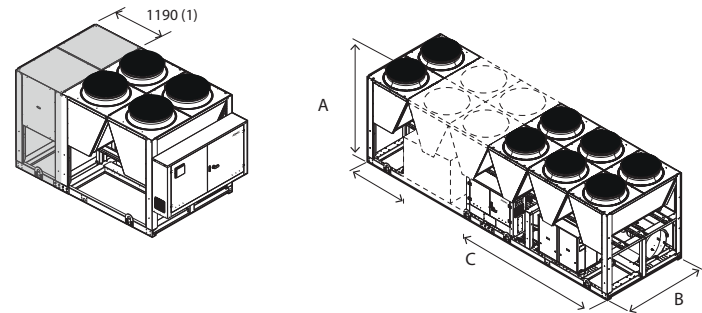
(5) Calculation performed with FIXED water flow rate.

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°A,E,L	type	Scroll																
Compressor regulation	°A,E,L	Type	On-Off																
Number	°A,E,L	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	°A,E,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°A,L	type	R410A																
	E	type																	
Refrigerant charge	°	kg	41,0	42,0	55,0	56,0	56,0	58,0	58,0	84,0	84,0	100,0	100,0	113,0	116,0	138,0	138,0	138,0	143,0
	A,L	kg	43,0	56,0	58,0	58,0	60,0	84,0	87,0	100,0	103,0	116,0	125,0	138,0	138,0	166,0	166,0	183,0	183,0
	E	kg	56,0	80,0	82,0	82,0	84,0	97,0	113,0	137,0	140,0	153,0	162,0	175,0	175,0	203,0	203,0	220,0	220,0
System side heat exchanger																			
Type	°A,E,L	type	Shell and tube																
System side hydraulic connections																			
Connections (in/out)	°A,E,L	Type	Grooved joints																
Sizes (in/out)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"
	A,E,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"
Fan																			
Type	°A,E,L	type	Axial																
Fan motor	°A	type	Asynchronous																
	E,L	type	Asynchronous with phase cut																
	°	no.	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14	14
Number	A,L	no.	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
	E	no.	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate	°	m³/h	80000	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000	280000
	A	m³/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
	E	m³/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
	L	m³/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	90,0	89,5	91,6	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	95,9	95,9
	A	dB(A)	90,0	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	96,6	96,6	97,2	97,2
	E	dB(A)	84,6	86,1	86,1	86,1	86,1	87,2	88,2	89,4	89,9	91,1	91,6	92,2	92,2	92,7	92,7	93,2	93,2
	L	dB(A)	82,6	84,6	84,6	84,6	84,6	86,1	86,1	87,7	88,2	89,6	90,1	90,9	90,9	91,6	91,6	92,1	92,1
Sound pressure level (10 m)	°	dB(A)	57,0	57,4	59,3	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,2	63,2
	A	dB(A)	57,0	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,7	63,7	64,2	64,2
	E	dB(A)	52,0	53,7	53,7	53,7	53,7	54,7	55,5	56,7	57,2	58,2	58,7	59,2	59,2	59,6	59,6	60,0	60,0
	L	dB(A)	50,0	52,4	52,4	52,4	52,4	53,8	53,8	55,2	55,7	57,0	57,5	58,2	58,2	58,7	58,7	59,1	59,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



(1) Additional module needed to contain the hydronic kit in sizes:
NRB 0800 - 0900 - 1400 - 1600, "H" versions
NRB 0800 - 1000 - 1100 - 1200, "HA, HL" versions

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	°	mm	2780	2780	3970	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
C	A,L	mm	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090
	°	kg	2630	2710	3280	3330	3380	3430	3460	4260	4350	5040	5120	5820	6090	7000	7080	7180	7300
Empty weight	A,L	kg	2680	3250	3330	3360	3460	4120	4220	4870	4980	5500	5870	6670	6920	7570	7650	8330	8410
	E	kg	3210	3890	3970	4000	4100	4650	5200	5940	6040	6610	6950	7680	7930	8530	8610	9300	9380
Dimensions and weights with pump/s																			
A	°A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	°	mm	3970 (1)	3970 (1)	3970	3970	3970	5160 (1)	5160 (1)	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
C	A,L	mm	3970 (1)	3970	5160 (1)	5160 (1)	5160 (1)	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090

(1) With additional module.

■ The dimensions shown in the table for units with a hydronic kit already include the additional module where necessary. For the weights, please contact the head office.

Aermec reserves the right to make any modifications deemed necessary.
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CL 025-200

Air-water chiller

Cooling capacity 5,8 ÷ 41 kW

- **Standard version**
- **Version with Integrated hydronic kit system side**
- **Fan Plug-fan**



DESCRIPTION

Chillers for indoor installation for chilled water production with scroll compressors, plugfan fans, external copper coils with aluminum fins. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

P With pump

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Air supply

Horizontal or vertical, adjustable during installation for all sizes.

Directional air discharge hood:

— plastic for sizes 050 to 090

— galvanised steel for the other sizes

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications. The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

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 supports.

CLPA: Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KR: Anti-freeze electric heater for the plate heat exchanger.

GPCL: Protection grille for the source side exchange coil.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	025	030	050	070	090	100	150	200
AERSET	°A,P	*	*	*	*	*	*	*	*
MODU-485BL	°A,P	*	*	*	*	*	*	*	*
MULTICONTROL	°A,P	*	*	*	*	*	*	*	*
PR3	°A,P	*	*	*	*	*	*	*	*
SPLW (1)	°A,P	*	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

Antivibration

Ver	025	030	050	070	090	100	150	200
°P	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15	VT15

Galvanised steel plenum

Ver	025	030	050	070	090	100	150	200
°A,P	CLPA1 (1)	CLPA1 (1)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA3	CLPA3	CLPA3

(1) Not compatible with the GPCL1 accessory

(2) Not compatible with the GPCL2 accessory

Device for peak current reduction

Ver	025	030	050	070	090	100	150	200
°A,P	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES x 2 (1)	DRES x 2 (1)	DRES x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Antifreeze electric heater

Ver	025	030	050	070	090	100	150	200
°A,P	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	025	030	050	070	090	100	150	200
°A,P	GPCL1	GPCL1	GPCL2	GPCL2	GPCL2	GPCL3	GPCL3	GPCL3

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2	CL
3,4,5	Size 025, 030, 050, 070, 090, 100, 150, 200
6	Model
°	Cooling only
7	Execution
°	Standard
8	Version
°	Standard
A	With storage tank and pump
P	With pump
9	Heat recovery
°	Without heat recovery
D	With desuperheater (1)
10	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
11	Operating yield
°	Standard mechanic thermostatic valve (2)
Y	Low temperature mechanic thermostatic valve (3)
Z	Low temperature electronic thermostatic valve (4)
12	Evaporator
°	Standard
C	Motocondensing unit
13	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers (5)
M	230V ~ 3 50Hz (6)

(1) It is only available in size CL 050 ÷ 200; If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the desuperheater.

(2) Water produced from 4 °C ÷ 18 °C

(3) Water produced from 0 °C ÷ - 10 °C

(4) Water produced from 0 °C ÷ 4 °C

(5) Only for CL 025 ÷ 200 sizes

(6) Only for CL 025 ÷ 030 sizes

PERFORMANCE SPECIFICATIONS

CL ° - (version °) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	050	070	090	100	150	200
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	5,8	7,1	12,7	16,3	20,2	26,3	33,0	40,6
Input power	kW	2,2	2,6	4,3	5,5	6,8	8,8	11,3	14,4
Cooling total input current - 400V	A	4,8	5,1	8,4	10,0	13,0	17,0	19,0	25,0
Cooling total input current - 230V	A	10,0	13,0	-	-	-	-	-	-
EER	W/W	2,70	2,72	2,98	3,00	2,98	2,99	2,91	2,82
Water flow rate system side	l/h	1008	1233	2189	2817	3484	4533	5695	7001
Pressure drop system side	kPa	19	26	27	29	29	45	53	72

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

CL ° - (versions A/P) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	050	070	090	100	150	200
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	5,9	7,2	12,8	16,5	20,4	26,5	33,4	41,0
Input power	kW	2,1	2,6	4,2	5,4	6,8	8,9	11,6	14,6
Cooling total input current - 400V	A	5,1	5,4	9,0	11,0	13,0	18,0	21,0	27,0
Cooling total input current - 230V	A	11,0	14,0	-	-	-	-	-	-
EER	W/W	2,76	2,78	3,02	3,04	3,02	2,97	2,87	2,81
Water flow rate system side	l/h	1008	1233	2189	2817	3484	4533	5695	7001
Useful head system side	kPa	71	62	73	66	58	83	131	122

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY DATA

Size			025	030	050	070	090	100	150	200
SEER - 12/7 (EN14825:2018) with standard fans (1)										
SEER	°	W/W	4,11	4,11	4,10	4,11	4,12	4,38	4,32	4,10
	A,P	W/W	4,22	4,22	4,17	4,21	4,22	4,21	4,13	4,12
Seasonal efficiency	°	%	161,3%	161,4%	161,1%	161,3%	161,8%	172,0%	169,7%	161,0%
	A,P	%	165,7%	165,7%	163,8%	165,2%	165,6%	165,5%	162,3%	161,8%
SEER - 23/18 (EN14825:2018) with standard fans (2)										
SEER	°	W/W	4,72	4,47	4,50	4,44	4,52	5,13	4,99	4,51
	A,P	W/W	4,86	4,62	4,64	4,58	4,72	4,90	4,65	4,36
Seasonal efficiency	°	%	185,9%	175,9%	176,8%	174,7%	177,7%	202,2%	196,6%	177,2%
	A,P	%	191,2%	181,7%	182,6%	180,0%	185,7%	193,1%	183,0%	171,5%
SEPR - (EN14825:2018) High temperature with standard fans (2)										
SEPR	°	W/W	5,38	5,10	5,10	5,03	5,04	5,67	5,59	5,30
	A,P	W/W	5,49	5,21	5,18	5,13	5,16	5,56	5,37	5,20

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

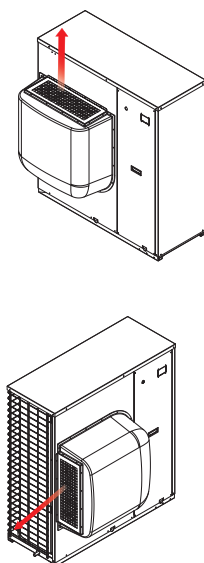
Size			025	030	050	070	090	100	150	200
Power supply: °										
Electric data										
Maximum current (FLA)	°	A	11,0	11,6	13,6	15,4	20,4	27,4	30,8	40,8
	A,P	A	11,4	12,0	14,4	16,1	21,1	29,3	33,8	43,8
Peak current (LRA)	°	A	44,6	40,6	77,2	77,2	105,2	90,9	92,6	125,6
	A,P	A	45,0	41,0	77,9	77,9	105,9	92,8	95,6	128,6
Size			025	030	050	070	090	100	150	200
Power supply: M										
Electric data										
Maximum current (FLA)	°	A	22,0	25,0	-	-	-	-	-	-
	A,P	A	22,6	25,6	-	-	-	-	-	-
Peak current (LRA)	°	A	67,0	88,0	-	-	-	-	-	-
	A,P	A	67,6	88,6	-	-	-	-	-	-

GENERAL TECHNICAL DATA

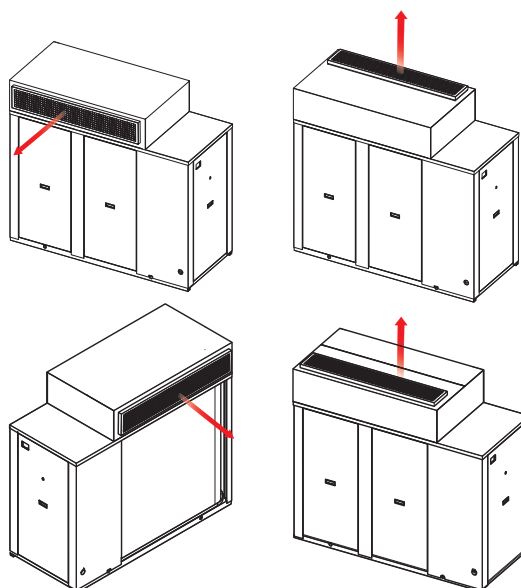
Size			025	030	050	070	090	100	150	200
Compressor										
Type	°A,P	type					Scroll			
Compressor regulation	°A,P	Type					On-off			
Number	°A,P	no.	1	1	1	1	1	2	2	2
Circuits	°A,P	no.	1	1	1	1	1	1	1	1
Refrigerant	°A,P	type					R410A			
Refrigerant charge	°A,P	kg	1,5	2,7	4,0	4,0	4,0	5,5	7,5	7,5
System side heat exchanger										
Type	°A,P	type					Brazed plate			
Number	°A,P	no.	1	1	1	1	1	1	1	1
Hydraulic connections										
Connections (in/out)	°A,P	Type					Gas - F			
Size (in)	°A,P	Ø					1¼			
Size (out)	°A,P	Ø					1¼			
Fan										
Type	°A,P	type					Plug-fan			
Fan motor	°A,P	type					Inverter			
Number	°A,P	no.	1	1	1	1	1	2	2	2
Air flow rate	°A,P	m³/h	4000	4000	6500	6500	7500	10000	12000	12000
High static pressure	°A,P	Pa	50	50	50	50	50	50	50	50
Machine body										
Sound power level	°A,P	dB(A)	78,0	78,0	73,0	73,0	76,0	74,0	79,0	79,0
Sound pressure level in cooling mode (10 m)	°A,P	dB(A)	46,0	46,0	41,0	41,0	44,0	42,0	47,0	47,0
Delivery unit										
Sound power level	°A,P	dB(A)	78,0	78,0	78,0	78,0	81,0	78,0	83,0	83,0
Sound pressure level in cooling mode (10 m)	°A,P	dB(A)	46,0	46,0	46,0	46,0	49,0	47,0	52,0	52,0

DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200



Air supply

Horizontal or vertical, adjustable during installation for all sizes.

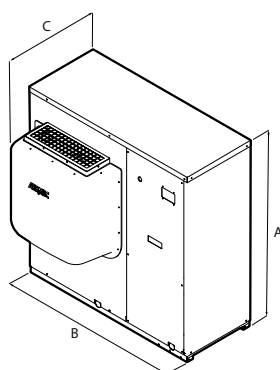
Directional air discharge hood:

— plastic for sizes 050 to 090

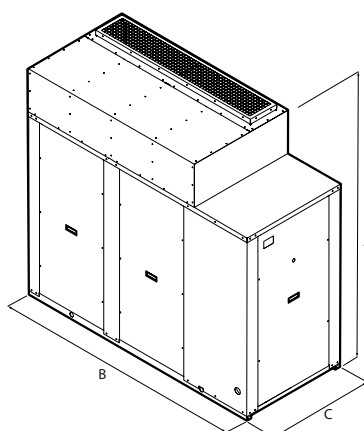
— galvanised steel for the other sizes

DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



Size			025	030	050	070	090	100	150	200
Dimensions and weights										
A	°;A,P	mm	1028	1281	1281	1281	1281	1674	1674	1674
B	°;P	mm	1005	1006	1160	1160	1160	1897	1897	1897
	A	mm	1366	1458	1610	1610	1610	1897	1897	1897
C	°;A,P	mm	702	754	798	798	798	801	801	801
Empty weight	°	kg	127	160	208	210	212	469	471	475
	A	kg	157	201	252	260	256	532	537	542
	P	kg	133	166	217	225	221	482	487	492

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CL 025H-200H

Reversible air/water heat pump

Cooling capacity 6,5 ÷ 50,9 kW
Heating capacity 7,7 ÷ 44,8 kW

- Cooling / heating / high-temperature water production even for DHW production.
- Water produced up to 60 °C
- Heating operations with external temperatures down to -15 °C
- Fan Plug-fan



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A With storage tank and pump

P With pump

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 46 °C in summer. Hot water production up to 60 °C.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Air supply

Horizontal or vertical, adjustable during installation for all sizes.

Directional air discharge hood:

— plastic for sizes 050 to 090

— galvanised steel for the other sizes

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

Special attention has been paid to winter operation: compared with traditional heat pumps, the operating limits have been extended thanks to particular technological expedients.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.

MULTICONTROL: Allows the simultaneous control of several units (up to 4), fitted with our MODUCONTROL controller, installed in the same hydraulic system.

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.

SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

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 supports.

BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

CLPA: Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

GPCL: Protection grille for the source side exchange coil.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	025	030	040	050	070	080	090	100	150	200
AERSET	°A,P	*	*	*	*	*	*	*	*	*	*
MODU-485BL	°A,P	*	*	*	*	*	*	*	*	*	*
MULTICONTROL	°A,P	*	*	*	*	*	*	*	*	*	*
PR3	°A,P	*	*	*	*	*	*	*	*	*	*
SDHW (1)	°A,P	*	*	*	*	*	*	*	*	*	*
SPLW (2)	°A,P	*	*	*	*	*	*	*	*	*	*

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

■ MODU-485BL = Accessory mandatory for the production of domestic hot water

Antivibration

Ver	025	030	040	050	070	080	090	100	150	200
°P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15	VT15

BSKW: Electric heater kit

Ver	025	030	040	050	070	080	090	100	150	200
Power supply: °										
°A,P	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T
Power supply: M										
°A,P	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	-	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Galvanised steel plenum

Ver	025	030	040	050	070	080	090	100	150	200
°A,P	CLPA1 (1)	CLPA1 (1)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA3	CLPA3	CLPA3

(1) Not compatible with the GPCL1 accessory

(2) Not compatible with the GPCL2 accessory

Device for peak current reduction

Ver	025	030	040	050	070	080	090	100	150	200
Power supply: °										
°A,P	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES (1)	DRES x 2 (1)	DRES x 2 (1)	DRES x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Electric Heater for the Base

Ver	025	030	040	050	070	080	090	100	150	200
°A,P	KRB4 (1)	KRB4 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB6 (1)	KRB6 (1)	KRB6 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	025	030	040	050	070	080	090	100	150	200
°A,P	GPCL1	GPCL1	GPCL2	GPCL2	GPCL2	GPCL2	GPCL2	GPCL3	GPCL3	GPCL3

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2	CL
3,4,5	Size 025, 030, 040, 050, 070, 080, 090, 100, 150, 200
6	Model
H	Heat pump
7	Execution
°	Standard
8	Version
°	Standard
A	With storage tank and pump (1)
P	With pump
9	Heat recovery
°	Without heat recovery
10	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
11	Operating yield
°	Standard mechanic thermostatic valve (2)
Y	Low temperature mechanic thermostatic valve (3)
Z	Low temperature electronic thermostatic valve (4)
12	Evaporator
°	Standard
13	Power supply
°	400V 3N ~ 50Hz (5)
M	230V ~ 50Hz (6)

(1) The version with integrated storage tank is not suitable for the production of domestic hot water (DHW).

(2) Water produced from 4 °C ÷ 18 °C

(3) Water produced from 0 °C ÷ -10 °C

(4) Water produced from 0 °C ÷ 4 °C

(5) Only for CL 025 ÷ 200 sizes

(6) Only for CL 025 ÷ 040 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 12 °C/ 7 °C (1)											
Cooling capacity	kW	6,4	8,4	10,4	11,9	14,0	15,5	19,0	23,9	31,3	37,6
Input power	kW	2,6	3,1	3,8	4,2	4,8	5,6	6,8	8,2	10,9	14,4
Cooling total input current - 400V	A	5,5	6,3	6,6	7,5	8,3	9,6	13,0	14,0	21,0	26,0
Cooling total input current - 230V	A	13,0	15,0	16,0	-	-	-	-	-	-	-
EER	W/W	2,44	2,73	2,74	2,87	2,90	2,77	2,81	2,93	2,86	2,61
Water flow rate system side	l/h	1104	1441	1785	2054	2411	2676	3272	4122	5388	6477
Pressure drop system side	kPa	13	12	13	11	15	26	26	34	22	43
Heating performance 40 °C/ 45 °C (2)											
Heating capacity	kW	7,9	9,8	12,5	14,4	15,9	18,6	21,0	27,8	34,8	43,8
Input power	kW	2,3	2,9	3,7	4,1	4,7	5,5	6,5	8,1	10,6	14,4
Heating total input current - 400V	A	5,5	6,2	6,4	7,5	8,1	9,2	13,0	14,0	19,0	26,0
Heating total input current - 230V	A	12,0	14,0	15,0	-	-	-	-	-	-	-
COP	W/W	3,41	3,32	3,40	3,52	3,36	3,40	3,20	3,44	3,27	3,03
Water flow rate system side	l/h	1368	1693	2164	2502	2756	3214	3634	4822	6034	7581
Pressure drop system side	kPa	19	16	18	17	21	32	34	49	30	42

(1) Data 14S11:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14S11:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	6,5	8,4	10,5	12,0	14,1	15,7	19,1	24,2	31,6	38,0
Input power	kW	2,6	3,0	3,7	4,2	4,8	5,6	6,7	8,3	11,3	14,7
Cooling total input current - 400V	A	5,8	6,7	7,0	8,1	8,9	10,0	14,0	15,0	23,0	28,0
Cooling total input current - 230V	A	13,0	16,0	16,0	-	-	-	-	-	-	-
EER	W/W	2,49	2,79	2,79	2,90	2,94	2,82	2,85	2,91	2,81	2,58
Water flow rate system side	l/h	1104	1441	1785	2054	2411	2676	3272	4122	5388	6477
Useful head system side	kPa	76	75	69	92	86	80	64	99	158	145
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	7,8	9,7	12,4	14,3	15,8	18,4	20,8	27,6	34,5	43,4
Input power	kW	2,3	2,9	3,6	4,1	4,7	5,4	6,5	8,2	11,0	14,8
Heating total input current - 400V	A	5,9	6,6	6,8	8,1	8,7	9,9	13,0	15,0	21,0	28,0
Heating total input current - 230V	A	12,0	15,0	16,0	-	-	-	-	-	-	-
COP	W/W	3,42	3,34	3,42	3,50	3,35	3,40	3,21	3,35	3,14	2,92
Water flow rate system side	l/h	1368	1693	2164	2502	2756	3214	3634	4822	6034	7581
Useful head system side	kPa	68	67	56	84	78	66	53	72	133	103

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C

CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	8,5	11,1	13,8	15,8	18,6	20,6	25,2	31,7	41,6	49,9
Input power	kW	2,8	3,3	4,0	4,4	5,1	6,0	7,2	8,7	11,6	15,4
Cooling total input current - 400V	A	5,8	6,6	6,9	8,0	8,7	10,0	14,0	15,0	22,0	27,0
Cooling total input current - 230V	A	13,0	16,0	17,0	-	-	-	-	-	-	-
EER	W/W	3,05	3,42	3,43	3,59	3,63	3,45	3,50	3,63	3,57	3,24
Water flow rate system side	l/h	1472	1922	2381	2740	3216	3570	4364	5498	7187	8639
Pressure drop system side	kPa	23	21	23	20	27	46	46	60	39	77
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	8,2	10,1	12,9	15,0	16,5	19,2	21,7	28,9	36,1	45,4
Input power	kW	2,0	2,5	3,1	3,5	4,0	4,6	5,5	6,8	9,0	12,4
Heating total input current - 400V	A	4,7	5,3	5,4	6,4	6,8	7,8	11,0	12,0	16,0	22,0
Heating total input current - 230V	A	10,0	12,0	13,0	-	-	-	-	-	-	-
COP	W/W	4,16	4,08	4,15	4,30	4,12	4,17	3,93	4,22	3,99	3,67
Water flow rate system side	l/h	1413	1749	2235	2585	2846	3320	3754	4981	6233	7832
Pressure drop system side	kPa	20	17	19	18	22	34	36	52	32	45

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	8,6	11,2	13,9	16,0	18,7	20,8	25,4	32,0	41,9	50,3
Input power	kW	2,7	3,2	4,0	4,4	5,1	5,9	7,2	8,9	12,1	15,8
Cooling total input current - 400V	A	6,2	7,0	7,3	8,6	9,4	11,0	15,0	16,0	24,0	30,0
Cooling total input current - 230V	A	14,0	17,0	17,0	-	-	-	-	-	-	-
EER	W/W	3,13	3,50	3,50	3,64	3,69	3,52	3,55	3,58	3,45	3,18
Water flow rate system side	l/h	1472	1922	2381	2740	3216	3570	4364	5498	7187	8639
Useful head system side	kPa	63	59	48	79	66	55	27	41	81	57
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	8,1	10,0	12,8	14,8	16,3	19,1	21,6	28,6	35,8	45,0
Input power	kW	1,9	2,4	3,1	3,4	4,0	4,6	5,5	7,0	9,4	12,8
Heating total input current - 400V	A	5,0	5,6	5,8	7,0	7,5	8,5	11,0	13,0	18,0	24,0
Heating total input current - 230V	A	11,0	13,0	14,0	-	-	-	-	-	-	-
COP	W/W	4,18	4,11	4,19	4,30	4,13	4,19	3,94	4,09	3,80	3,52
Water flow rate system side	l/h	1413	1749	2235	2585	2846	3320	3754	4981	6233	7832
Useful head system side	kPa	66	65	54	82	76	63	49	65	124	93

(1) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			025	030	040	050	070	080	090	100	150	200
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	°	W/W	2,93	3,27	3,32	3,45	3,43	3,27	3,39	4,06	4,06	3,66
	A,P	W/W	3,11	3,47	3,53	3,62	3,62	3,46	3,60	4,06	3,85	3,60
η _{sc}	°	%	114,20	127,60	129,60	134,80	134,00	127,80	132,40	159,20	159,20	143,40
	A,P	%	121,40	135,90	138,00	142,00	141,70	135,30	141,00	159,50	150,80	141,10
UE 811/2013 performance in average ambient conditions (average) - 35 °C - P_{designh} ° 70 kW (1)												
P _{designh}	°	kW	7	9	11	13	14	16	18	25	31	39
	A,P	kW	7	8	11	12	14	16	18	24	29	37
SCOP	°		3,35	3,35	3,45	3,58	3,45	3,53	3,30	3,53	3,35	3,23
	A,P		3,43	3,43	3,53	3,63	3,50	3,58	3,35	3,45	3,23	3,20
η _{sh}	°	%	131,00	131,00	135,00	140,00	135,00	138,00	129,00	138,00	131,00	126,00
	A,P	%	134,00	134,00	138,00	142,00	137,00	140,00	131,00	135,00	126,00	125,00
Efficiency energy class	°A,P		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

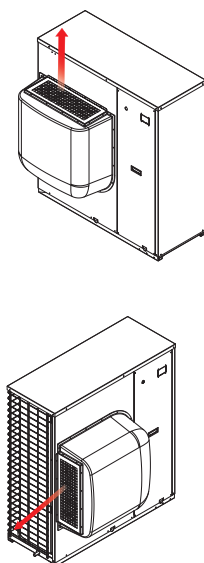
Size			025	030	040	050	070	080	090	100	150	200
Power supply: °												
Electric data												
Maximum current (FLA)	°	A	11,0	11,9	11,9	13,5	14,7	15,2	20,4	27,0	30,3	40,8
	A,P	A	11,4	12,4	12,3	14,3	15,4	15,9	21,1	29,0	33,4	43,8
Peak current (LRA)	°	A	44,6	44,6	57,1	64,2	74,2	94,2	105,2	77,7	109,3	125,6
	A,P	A	45,0	45,0	57,6	64,9	74,9	94,9	105,9	79,6	112,4	128,6
Size			025	030	040	050	070	080	090	100	150	200
Power supply: M												
Electric data												
Maximum current (FLA)	°	A	19,0	24,0	24,0	-	-	-	-	-	-	-
	A,P	A	19,8	24,7	25,0	-	-	-	-	-	-	-
Peak current (LRA)	°	A	86,0	96,0	96,0	-	-	-	-	-	-	-
	A,P	A	87,1	96,5	97,1	-	-	-	-	-	-	-

GENERAL TECHNICAL DATA

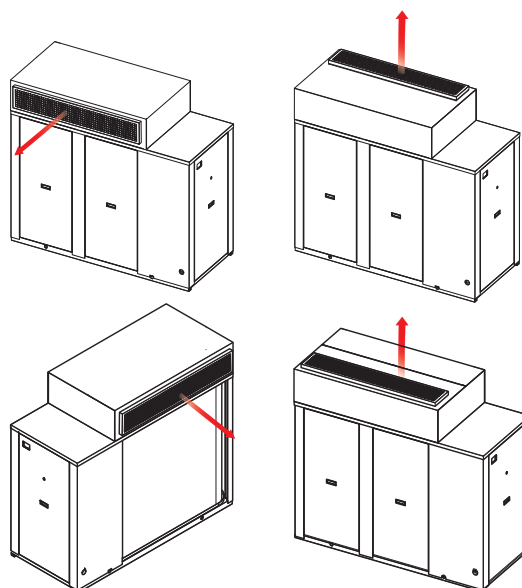
Size			025	030	040	050	070	080	090	100	150	200
Compressor												
Type	°A,P	type	Scroll									
Compressor regulation	°A,P	Type	On-off									
Number	°A,P	no.	1	1	1	1	1	1	1	2	2	2
Circuits	°A,P	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	°A,P	type	R410A									
Refrigerant charge	°A,P	kg	2,7	2,7	4,3	5,6	5,6	5,6	5,7	8,3	8,0	7,5
System side heat exchanger												
Type	°A,P	type	Brazed plate									
Number	°A,P	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	°A,P	Type	Gas - F									
Size (in)	°A,P	Ø	1¼									
Size (out)	°A,P	Ø	1¼									
Fan												
Type	°A,P	type	Plug-fan									
Fan motor	°A,P	type	Inverter									
Number	°A,P	no.	1	1	1	1	1	1	1	2	2	2
Air flow rate	°A,P	m³/h	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
High static pressure	°A,P	Pa	50	50	50	80	80	80	80	80	100	100
Machine body												
Sound power level	°A,P	dB(A)	78,0	78,0	73,0	73,0	73,0	73,0	76,0	74,0	79,0	80,0
Sound pressure level in cooling mode (10 m)	°A,P	dB(A)	46,0	46,0	41,0	41,0	41,0	41,0	44,0	42,0	47,0	48,0
Delivery unit												
Sound power level	°A,P	dB(A)	78,0	78,0	78,0	78,0	78,0	78,0	81,0	78,0	83,0	85,0
Sound pressure level in cooling mode (10 m)	°A,P	dB(A)	46,0	46,0	46,0	46,0	46,0	46,0	49,0	47,0	52,0	54,0

DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200

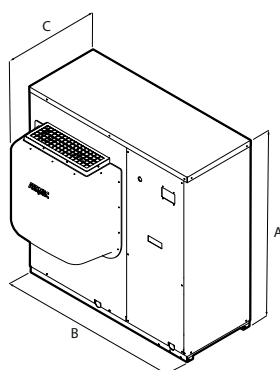


Air supply
Horizontal or vertical, adjustable during installation for all sizes.
Directional air discharge hood:

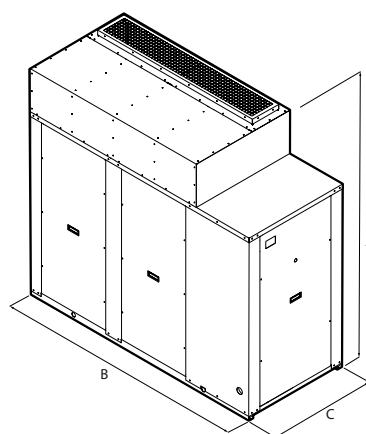
— plastic for sizes 050 to 090
— galvanised steel for the other sizes

DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



Size			025	030	040	050	070	080	090	100	150	200
Dimensions and weights												
A	°A,P	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	°P	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
	A	mm	1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
C	°A,P	mm	702	702	798	798	798	798	798	801	801	801
Empty weight	°	kg	142	142	229	229	240	240	234	504	527	515
	A	kg	172	172	274	274	284	284	279	567	593	581
	P	kg	148	148	239	239	250	250	243	517	543	531

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NLC 0280 - 1250

Air-water chiller

Cooling capacity 53 ÷ 322 kW



- High efficiency also at partial loads
- Complete air flow versatility
- EC fan Plug-fan with high performance
- Night mode



DESCRIPTION

Chiller offering chilled/hot water, designed to meet air conditioning needs in residential / commercial complexes or industrial applications. Outdoor units with Scroll compressors, centrifugal fans and plate heat exchangers.

The base structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

In the configuration with desuperheater or total recovery, it is also possible to produce free-hot water.

CONTROL PCO₂

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

VT: Anti-vibration supports.

FLG: Flange for ducts.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

KRQ: Electric heater for the control and electric power board.

KRA: Anti-freeze electric heater for the buffer tank.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
C-TOUCH	°A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

FILTROW

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°A,E	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)

(1) Installation is mandatory, contrarily guarantee becomes void.

Ver	0700	0750	0800	0900	1000	1100	1250
°A,E	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)

(1) Installation is mandatory, contrarily guarantee becomes void.

Flange for ducts

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°	FLG1	FLG1	FLG1	FLG1	FLG1	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)
A,E	FLG1	FLG1	FLG1	FLG1	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)

(1) x... indicates the quantity to buy.

Ver	0700	0750	0800	0900	1000	1100	1250
°	FLG1 x 2 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)
A,E	FLG1 x 2 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)

(1) x... indicates the quantity to buy.

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: 00								
°A,E	VT17	VT17	VT17	VT17	-	-	-	-
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08								
°A,E	VT11	VT11	VT11	VT11	-	-	-	-
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8								
°A,E	VT13	VT13	VT13	VT13	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: 00								
°	-	-	-	-	AVX437	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08								
°	-	-	-	-	AVX439	AVX423	AVX423	AVX423
A,E	-	-	-	-	AVX423	AVX423	AVX423	AVX423
Integrated hydronic kit: P1								
°	-	-	-	-	AVX438	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: P2								
°	-	-	-	-	AVX438	AVX422	AVX422	AVX422
A,E	-	-	-	-	AVX422	AVX422	AVX422	AVX422
Integrated hydronic kit: P3								
°	-	-	-	-	AVX438	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: P4								
°	-	-	-	-	AVX438	AVX422	AVX422	AVX422
A,E	-	-	-	-	AVX422	AVX422	AVX422	AVX422
Integrated hydronic kit: P5								
°	-	-	-	-	AVX438	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: P6								
°	-	-	-	-	AVX438	AVX422	AVX422	AVX422
A,E	-	-	-	-	AVX422	AVX422	AVX422	AVX422
Integrated hydronic kit: P7								
°	-	-	-	-	AVX438	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: P8								
°	-	-	-	-	AVX438	AVX422	AVX422	AVX422
A,E	-	-	-	-	AVX422	AVX422	AVX422	AVX422

The accessory cannot be fitted on the configurations indicated with -

Ver	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00							
°	AVX424	AVX440	AVX440	AVX444	AVX431	AVX431	AVX431
A,E	AVX424	AVX428	AVX431	AVX431	AVX431	AVX431	AVX431
Integrated hydronic kit: 01							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX434	AVX434
A,E	AVX427	AVX430	AVX434	AVX434	AVX434	AVX434	AVX434
Integrated hydronic kit: 02							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX436	AVX436
A,E	AVX427	AVX430	AVX435	AVX435	AVX435	AVX436	AVX436
Integrated hydronic kit: 03							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX434	AVX434
A,E	AVX427	AVX430	AVX434	AVX434	AVX434	AVX434	AVX434
Integrated hydronic kit: 04							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX436	AVX436
A,E	AVX427	AVX430	AVX435	AVX435	AVX435	AVX436	AVX436
Integrated hydronic kit: 05							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX434	AVX434
A,E	AVX427	AVX430	AVX434	AVX434	AVX434	AVX434	AVX434
Integrated hydronic kit: 06							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX436	AVX436
A,E	AVX427	AVX430	AVX435	AVX435	AVX435	AVX436	AVX436
Integrated hydronic kit: 07							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX434	AVX434
A,E	AVX427	AVX430	AVX434	AVX434	AVX434	AVX434	AVX434
Integrated hydronic kit: 08							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX436	AVX436
A,E	AVX427	AVX430	AVX435	AVX435	AVX435	AVX436	AVX436
Integrated hydronic kit: P1							
°	AVX425	AVX425	AVX442	AVX445	AVX432	AVX432	AVX432
A,E	AVX425	AVX429	AVX432	AVX432	AVX432	AVX432	AVX432
Integrated hydronic kit: P2							
°	AVX426	AVX426	AVX443	AVX445	AVX433	AVX433	AVX433
A,E	AVX426	AVX429	AVX433	AVX433	AVX433	AVX433	AVX433
Integrated hydronic kit: P3							
°	AVX425	AVX425	AVX442	AVX445	AVX432	AVX432	AVX432
A,E	AVX425	AVX429	AVX432	AVX432	AVX432	AVX432	AVX432
Integrated hydronic kit: P4							
°	AVX426	AVX426	AVX443	AVX445	AVX433	AVX433	AVX433
A,E	AVX426	AVX429	AVX433	AVX433	AVX433	AVX433	AVX433
Integrated hydronic kit: P5							
°	AVX425	AVX425	AVX442	AVX445	AVX432	AVX432	AVX432
A,E	AVX425	AVX429	AVX432	AVX432	AVX432	AVX432	AVX432
Integrated hydronic kit: P6							
°	AVX426	AVX426	AVX443	AVX445	AVX433	AVX433	AVX433
A,E	AVX426	AVX429	AVX433	AVX433	AVX433	AVX433	AVX433
Integrated hydronic kit: P7							
°	AVX425	AVX425	AVX442	AVX445	AVX432	AVX432	AVX432
A,E	AVX425	AVX429	AVX432	AVX432	AVX432	AVX432	AVX432
Integrated hydronic kit: P8							
°	AVX426	AVX426	AVX443	AVX445	AVX433	AVX433	AVX433
A,E	AVX426	AVX429	AVX433	AVX433	AVX433	AVX433	AVX433

DRE: Device for peak current reduction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	DRE275 (1)	DRE275 (1)	DRE300 (1)	DRE350 (1)	DRE552 (1)	DRE602 (1)	DRE652 (1)	DRE675 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	DRE350 x 2	DRE552 x 2	DRE552 x 2	DRE602 x 2	DRE652 x 2	DRE675 x 2	DRE1250 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	RIFNLC1	RIFNLC1	RIFNLC2	RIFNLC3	RIFNLC1	RIFNLC1	RIFNLC1	RIFNLC4

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	RIFNLC3 x 2 (1)	RIFNLC3 + RIFNLC2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC4 x 2 (1)	RIFNLC3 x 2 (1)

(1) x... indicates the quantity to buy.

A grey background indicates the accessory must be assembled in the factory

Anti-condensate electric board resistance

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Anti-freeze electric heater for the storage tank

Ver	0280	0300	0330	0350	0550	0600	0650	0675
-----	------	------	------	------	------	------	------	------

Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08

°,A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2
-------	------	------	------	------	------	------	------	------

Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8

A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2
-----	------	------	------	------	------	------	------	------

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
-----	------	------	------	------	------	------	------

Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08

°,A,E	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2
-------	------	------	------	------	------	------	------

Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8

A,E	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2
-----	------	------	------	------	------	------	------

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NLC
4,5,6,7	Size 0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Low temperature mechanic thermostatic valve (2)
Z	Low temperature electronic thermostatic valve (2)
9	Model
°	Cooling only
C	Motocondensing unit
10	Heat recovery
°	Without heat recovery
D	With desuperheater (3)
T	With total recovery (4)
11	Version
°	Standard
A	High efficiency
E	Silenced high efficiency
12	Coils
°	Copper-aluminium
R	Copper-copper
S	Copper-Tinned copper
V	Copper-painted aluminium
13	Fans
J	Inverter
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers (5)
15,16	Integrated hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with storage tank and inverter pump/s
05	Storage tank with low-head inverter pump
06	Storage tank with low head inverter pump + stand-by pump
07	Storage tank with high head inverter pump
08	Storage tank with high head inverter pump + stand-by pump
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with pump/s, with inverter speed (6)
P5	Single low head pump + fixed speed inverter
P6	Single low head pump with fixed speed inverter + stand-by pump
P7	Single high head pump + fixed speed inverter
P8	Single high head pump with fixed speed inverter + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from 4 °C ÷ -10 °C

(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(4) Options not available for standard unit ^{nom}, condensing unit and with alls hydronic kit.

(5) Witout neuter from size 0800 to 1250

(6) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

PERFORMANCE SPECIFICATIONS

NLC - °

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C/7 °C (1)																
Cooling capacity	kW	52,1	57,1	62,8	75,4	94,2	112,0	123,0	137,4	151,4	170,2	189,7	220,2	242,6	277,4	306,7
Input power	kW	20,4	23,4	24,3	28,9	39,3	44,3	50,1	53,7	58,6	66,6	79,0	86,4	99,8	107,6	121,3
Cooling total input current	A	38,0	42,0	46,0	57,0	68,0	77,0	85,0	92,0	113,0	121,0	136,0	148,0	169,0	181,0	208,0
EER	W/W	2,56	2,44	2,59	2,61	2,40	2,53	2,45	2,56	2,58	2,56	2,40	2,55	2,43	2,58	2,53
Water flow rate system side	l/h	8969	9828	10807	12972	16236	19277	21167	23676	26081	29294	32644	37884	41733	47712	52763
Pressure drop system side	kPa	19	22	28	27	43	27	31	43	37	30	38	35	35	41	48

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NLC - A

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C/7 °C (1)																
Cooling capacity	kW	54,0	59,4	66,9	78,6	106,3	119,5	129,2	146,3	157,4	177,9	209,7	233,2	257,6	290,6	319,2
Input power	kW	19,5	21,5	23,4	27,7	37,7	42,9	45,0	52,4	55,3	60,3	75,4	84,8	89,6	105,7	115,9
Cooling total input current	A	36,0	40,0	43,0	54,0	63,0	71,0	73,0	87,0	107,0	113,0	126,0	139,0	146,0	173,0	198,0
EER	W/W	2,77	2,76	2,85	2,84	2,82	2,78	2,87	2,79	2,85	2,95	2,78	2,75	2,88	2,75	2,75
Water flow rate system side	l/h	9295	10223	11511	13539	18298	20566	22250	25188	27095	30617	36080	40118	44310	49980	54911
Pressure drop system side	kPa	20	24	22	30	25	30	36	36	25	25	33	33	35	37	43

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

NLC - E

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C/7 °C (1)																
Cooling capacity	kW	52,2	58,0	64,2	73,4	102,9	115,6	124,5	142,6	151,1	171,3	201,2	224,8	248,0	282,8	310,6
Input power	kW	19,3	21,5	23,7	27,4	37,6	42,7	45,9	52,5	55,4	60,1	74,9	85,2	90,6	105,8	116,0
Cooling total input current	A	36,0	39,0	43,0	53,0	62,0	69,0	73,0	85,0	106,0	112,0	123,0	138,0	146,0	170,0	197,0
EER	W/W	2,70	2,70	2,71	2,67	2,74	2,71	2,71	2,72	2,73	2,85	2,69	2,64	2,74	2,67	2,68
Water flow rate system side	l/h	8986	9982	11047	12628	17714	19896	21442	24552	25995	29483	34637	38675	42661	48640	53433
Pressure drop system side	kPa	19	23	20	26	23	29	34	34	23	24	31	30	33	35	41

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	°	W/W	5,33	5,02	4,92	4,97	4,25	4,87	4,57	4,73	4,28	4,15	4,10	4,12	4,10	4,15
	A	W/W	5,79	5,77	5,33	5,34	5,24	5,33	5,15	5,03	4,75	4,93	4,55	4,46	4,63	4,42
	E	W/W	4,83	4,98	4,74	4,80	4,58	4,70	4,53	4,55	4,48	4,63	4,19	4,14	4,31	4,19
Seasonal efficiency	°	%	210,3%	197,8%	193,9%	195,8%	167,1%	191,6%	179,6%	186,0%	168,2%	162,8%	161,0%	161,9%	161,1%	163,1%
	A	%	228,6%	227,6%	210,2%	210,4%	206,7%	210,1%	202,9%	198,3%	186,9%	194,0%	178,8%	175,5%	182,3%	173,9%
	E	%	190,3%	196,0%	186,7%	189,0%	180,1%	185,0%	178,3%	179,1%	176,2%	182,1%	164,6%	162,7%	169,2%	164,4%
SEER - 23/18 (EN14825: 2018) with standard fans (2)																
SEER	°	W/W	6,25	5,89	5,79	5,84	5,02	5,72	5,37	5,58	5,08	4,91	4,86	4,90	4,86	4,93
	A	W/W	6,84	6,82	6,27	6,27	6,17	6,27	6,07	5,93	5,62	5,84	5,39	5,29	5,49	5,25
	E	W/W	5,68	5,85	5,58	5,64	5,39	5,54	5,35	5,37	5,29	5,46	4,96	4,90	5,10	4,95
Seasonal efficiency	°	%	246,8%	232,5%	228,5%	230,5%	197,7%	225,8%	211,9%	220,1%	200,0%	193,4%	191,4%	192,8%	191,5%	194,1%
	A	%	270,6%	269,7%	247,6%	247,7%	243,6%	247,8%	239,8%	234,3%	221,8%	230,4%	212,4%	208,5%	216,6%	206,9%
	E	%	224,2%	230,8%	220,3%	222,7%	212,7%	218,4%	211,0%	211,8%	208,6%	215,5%	195,3%	193,0%	200,9%	195,0%
SEPR - (EN14825: 2018) High temperature with standard fans (2)																
SEPR	°	W/W	6,54	6,22	6,12	6,02	5,18	5,73	5,32	5,70	5,45	5,08	5,04	5,25	5,04	5,07
	A	W/W	6,87	6,88	6,44	6,47	6,21	6,35	5,98	5,90	5,94	6,32	5,65	5,40	5,72	5,41
	E	W/W	5,91	5,92	5,65	5,55	5,14	5,36	5,03	5,15	5,12	5,48	5,09	5,01	5,09	5,05

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

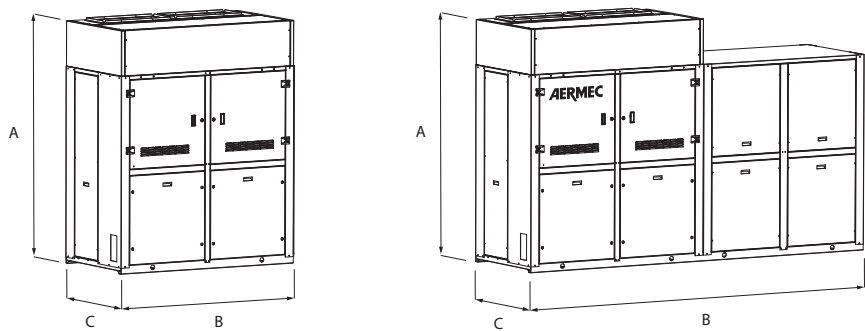
ELECTRIC DATA

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electric data																
Maximum current (FLA)	°	A	52,0	56,0	62,0	73,0	103,0	111,0	119,0	132,0	146,0	169,0	206,0	222,0	238,0	263,0
	A,E	A	52,0	56,0	62,0	73,0	92,0	111,0	119,0	132,0	146,0	158,0	183,0	210,0	238,0	263,0
Peak current (LRA)	°	A	128,0	130,0	133,0	216,0	261,0	273,0	281,0	358,0	290,0	346,0	353,0	372,0	400,0	489,0
	A,E	A	128,0	130,0	133,0	216,0	273,0	281,0	358,0	290,0	357,0	376,0	384,0	400,0	489,0	515,0

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Compressor																	
Type	°A,E	type	Scroll														
Compressor regulation	°A,E	Type	On-Off														
Number	°A,E	no.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4
Circuits	°A,E	no.	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Refrigerant	°A,E	type	R410A														
Refrigerant load circuit 1	°	kg	7,0	7,0	8,5	9,0	13,7	15,0	18,0	19,0	9,5	8,3	13,8	13,5	15,0	19,1	19,1
	A	kg	8,7	8,5	9,5	10,0	18,0	18,7	22,0	22,0	10,7	9,5	18,7	19,5	22,0	22,0	22,0
	E	kg	8,7	8,5	9,5	10,0	18,0	18,7	21,0	21,5	10,7	9,5	18,7	19,0	21,1	22,0	22,0
Refrigerant load circuit 2	°	kg	-	-	-	-	-	-	-	-	9,5	12,3	13,8	13,5	15,0	19,1	19,1
	A	kg	-	-	-	-	-	-	-	-	10,7	17,0	18,7	19,5	22,0	22,0	22,0
	E	kg	-	-	-	-	-	-	-	-	10,7	17,0	18,7	19,0	20,6	22,0	22,0
System side heat exchanger																	
Type	°A,E	type	Braze plate														
Number	°A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00																	
System side hydraulic connections																	
Connections (in/out)	°A,E	Type	Grooved joints														
Sizes (in/out)	°	Ø	2"	2"	2"	2"	2"	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"
	A,E	Ø	2"	2"	2"	2"	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, P1, P2, P3, P4, P5, P6, P7, P8																	
System side hydraulic connections																	
Connections (in/out)	°A,E	Type	Grooved joints														
Sizes (in/out)	°A,E	Ø	2"	2"	2"	2"	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"
Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Fan																	
Type	°A,E	type	Plug-fun														
Fan motor	°A,E	type	EC Inverter motors														
Number	°	no.	2	2	2	2	2	4	4	4	4	4	4	6	8	8	8
	A,E	no.	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate	°	m³/h	21600	24000	21150	23600	23200	34050	34050	38200	47150	46750	46350	62150	68100	66650	71750
	A	m³/h	21150	23600	19400	22050	27700	33350	27150	32750	44050	57900	55350	55350	54300	65450	65450
	E	m³/h	15000	18400	14650	16450	14900	22200	14600	21750	32900	41900	29850	29850	29200	43500	43500
Sound power level (expulsion)																	
Sound power level	°	dB(A)	83,3	85,6	82,9	85,4	87,5	83,9	83,9	86,1	88,4	89,6	90,5	86,9	86,9	89,1	89,1
	A	dB(A)	83,6	86,1	81,9	84,5	82,9	85,2	82,9	85,1	87,5	85,8	85,9	88,2	85,9	88,1	88,1
	E	dB(A)	76,7	80,1	76,5	78,3	75,2	78,5	75,2	78,4	81,3	80,0	78,2	81,5	78,2	81,4	81,4
Sound power level (intake + machine body)																	
Sound power level	°	dB(A)	80,1	79,2	81,0	83,8	86,4	84,8	85,6	83,9	85,1	86,7	87,7	87,2	89,3	89,3	-
	A	dB(A)	78,7	80,1	80,0	81,2	86,1	87,4	86,1	87,1	84,0	86,5	89,1	92,5	89,1	90,1	90,4
	E	dB(A)	76,8	76,7	78,6	79,2	84,2	85,1	84,1	84,7	81,0	82,4	86,2	89,7	86,2	86,6	86,8

DIMENSIONS



Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Dimensions and weights																	
A	°A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
	°	mm	1750	1750	1750	1750	1750	3150	3150	3150	3500	3500	3500	4900	6300	6300	6300
B	A,E	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
	°A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	°	kg	759	759	787	798	994	1409	1415	1450	1510	1682	1858	2294	2692	2775	2789
	A,E	kg	775	775	809	813	1432	1436	1470	1485	1553	2156	2728	2744	2818	2844	2858
Dimensions and weights with pump/s																	
A	°A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
	°	mm	2500	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	4900	6300	6300	6300
B	A,E	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
	°A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Dimensions and weights with storage tank and pump/s																	
A	°A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
	°	mm	3400	3400	3400	3400	3500	4150	4150	4150	5250	5250	5250	5900	7300	7300	7300
B	A,E	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
	°A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NLC 0280H - 1250H

Reversible air/water heat pump

Cooling capacity 53 ÷ 322 kW
Heating capacity 55 ÷ 342 kW



- High efficiency also at partial loads
- Complete air flow versatility
- EC fan Plug-fan with high performance
- Night mode



DESCRIPTION

Reversible heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

Outdoor units with Scroll compressors, centrifugal fans and plate heat exchangers.

The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Work up to 44°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software / technical documentation.

Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO₅

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

VT: Anti-vibration supports.

FLG: Flange for ducts.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

KRB: Electric anti-freeze resistance kit for base.

KRQ: Electric heater for the control and electric power board.

KRA: Anti-freeze electric heater for the buffer tank.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating

parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Water filter

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)

(1) Installation is mandatory, contrarily guarantee becomes void.

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)

(1) Installation is mandatory, contrarily guarantee becomes void.

Flange for ducts

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	FLG1	FLG1	FLG1	FLG1	FLG2	FLG2	FLG2	FLG2
Ver	0700	0750	0800	0900	1000	1100	1250	
A,E	FLG1 x 2 (1)	FLG1 + FLG2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	

(1) x... indicates the quantity to buy.

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00															
A,E	VT17	VT17	VT17	VT17	-	-	-	-	-	-	-	-	-	-	-
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08															
A,E	VT11	VT11	VT11	VT11	-	-	-	-	-	-	-	-	-	-	-
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8															
A,E	VT13	VT13	VT13	VT13	-	-	-	-	-	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX410	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: 01, 02, 03, 04															
A,E	-	-	-	-	AVX412	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
Integrated hydronic kit: 05, 06, 07, 08															
A	-	-	-	-	AVX423	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
E	-	-	-	-	AVX412	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
Integrated hydronic kit: P1															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX413	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P2															
A,E	-	-	-	-	AVX411	AVX411	AVX411	AVX411	AVX414	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P3															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX413	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P4															
A,E	-	-	-	-	AVX411	AVX411	AVX411	AVX411	AVX414	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P5															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX413	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P6															
A,E	-	-	-	-	AVX411	AVX411	AVX411	AVX411	AVX414	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P7															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX413	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P8															
A,E	-	-	-	-	AVX411	AVX411	AVX411	AVX411	AVX414	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	DRE275 (1)	DRE275 (1)	DRE300 (1)	DRE350 (1)	DRE552 (1)	DRE602 (1)	DRE652 (1)	DRE675 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	DRE350 x 2	DRE552 x 2	DRE552 x 2	DRE602 x 2	DRE652 x 2	DRE675 x 2	DRE1250 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	RIFNLC1	RIFNLC1	RIFNLC2	RIFNLC3	RIFNLC1	RIFNLC1	RIFNLC1	RIFNLC4

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	RIFNLC3 x 2 (1)	RIFNLC3 + RIFNLC2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC4 x 2 (1)	RIFNLC3 x 2 (1)

(1) x... indicates the quantity to buy.

A grey background indicates the accessory must be assembled in the factory

Anti-condensate electric board resistance

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Anti-freeze electric heater for the storage tank

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NLC
4,5,6,7	Size 0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250
8	Operating yield (1) ° Standard mechanic thermostatic valve X Electronic thermostatic expansion valve
9	Model H Heat pump
10	Heat recovery ° Without heat recovery D With desuperheater (2)
11	Version A High efficiency E Silenced high efficiency
12	Coils ° Copper-aluminium R Copper-copper S Copper-Tinned copper V Copper-painted aluminium
13	Fans J Inverter
14	Power supply ° 400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit

Field	Description
00	Without hydronic kit Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump Kit with storage tank and inverter pump/s
05	Storage tank with low-head inverter pump
06	Storage tank with low head inverter pump + stand-by pump
07	Storage tank with high head inverter pump
08	Storage tank with high head inverter pump + stand-by pump Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump Kit with pump/s, with inverter speed (3)
P5	Single low head pump + fixed speed inverter
P6	Single low head pump with fixed speed inverter + stand-by pump
P7	Single high head pump + fixed speed inverter
P8	Single high head pump with fixed speed inverter + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

PERFORMANCE SPECIFICATIONS

NLC - HA / HE

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C / 7 °C (1)																	
Cooling capacity	A	kW	55,7	61,8	68,1	80,1	104,7	117,9	128,4	146,1	161,0	184,5	206,5	237,6	257,5	292,6	321,9
	E	kW	53,0	59,3	64,5	76,1	99,4	112,5	120,2	138,8	152,4	174,7	195,9	227,6	245,6	277,9	309,7
Input power	A	kW	20,0	22,5	24,4	28,6	37,7	43,4	46,9	54,6	57,4	66,3	74,7	87,1	93,6	108,9	127,4
	E	kW	20,4	23,0	25,5	29,4	40,1	46,0	49,1	56,5	58,8	67,2	79,8	90,2	97,1	112,6	128,0
Cooling total input current	A	A	36,0	41,0	45,0	56,0	68,0	77,0	81,0	96,0	112,0	121,0	136,0	155,0	162,0	192,0	219,0
	E	A	36,0	40,0	45,0	55,0	69,0	77,0	83,0	95,0	111,0	121,0	139,0	153,0	166,0	191,0	218,0
EER	A	W/W	2,78	2,75	2,78	2,80	2,78	2,72	2,74	2,68	2,80	2,79	2,76	2,73	2,75	2,69	2,53
	E	W/W	2,60	2,58	2,52	2,58	2,48	2,44	2,45	2,46	2,59	2,60	2,46	2,52	2,53	2,47	2,42
Water flow rate system side	A	l/h	9368	10396	11480	13535	17638	19855	21700	24691	27213	31158	34751	40001	43480	49382	54436
	E	l/h	8967	10021	10934	12905	16829	19040	20401	23542	25847	29620	33162	38500	41662	47091	52474
Pressure drop system side	A	kPa	21	25	23	30	24	29	35	35	26	25	34	34	36	38	44
	E	kPa	20	24	20	27	20	25	29	30	24	25	33	35	38	42	53

Heating performance 40 °C / 45 °C (2)

Heating capacity	A,E	kW	55,1	62,1	69,4	81,1	107,5	119,9	134,7	153,8	165,6	190,1	213,8	239,6	268,6	307,0	342,6
Input power	A,E	kW	19,1	21,9	24,0	27,8	37,0	41,5	46,4	53,7	55,9	65,1	73,6	82,9	91,5	105,2	118,1
Heating total input current	A,E	A	36,0	40,0	44,0	54,0	65,0	74,0	78,0	91,0	105,0	114,0	129,0	145,0	153,0	179,0	199,0
COP	A,E	W/W	2,88	2,84	2,89	2,91	2,91	2,89	2,90	2,86	2,96	2,92	2,90	2,89	2,94	2,92	2,90
Water flow rate system side	A,E	l/h	9781	11023	12266	14321	19050	21235	23760	27154	29225	33591	37889	42470	47456	54236	60425
Pressure drop system side	A,E	kPa	22	27	25	32	27	32	40	41	29	28	38	37	41	43	52

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C

(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
SEER	A	W/W	4,48	4,50	4,52	4,71	4,89	4,74	4,65	4,52	4,38	4,33	4,51	4,47	4,36	4,29	4,08
	E	W/W	4,16	4,16	4,08	4,50	4,29	4,23	4,29	4,22	4,20	4,14	3,98	4,21	4,13	3,99	3,86
η _{sc}	A	%	176,10	177,10	177,80	185,20	192,50	186,40	183,10	177,70	172,20	170,30	177,50	175,80	171,40	168,70	160,00
	E	%	163,20	163,50	160,30	177,10	168,50	166,00	168,40	165,90	165,00	162,60	156,20	165,30	162,20	156,40	151,40

ELECTRICAL DATA

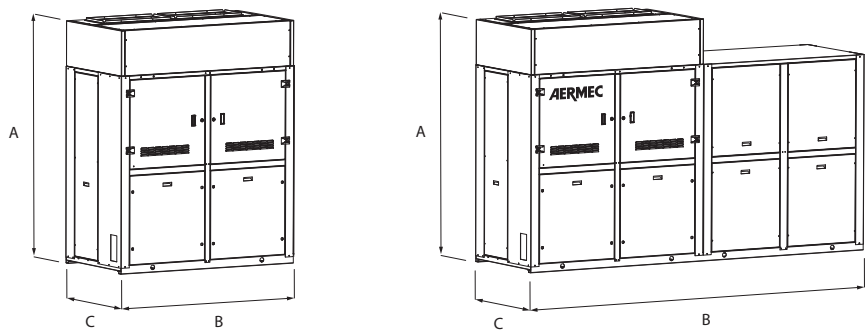
Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electric data																	
Maximum current (FLA)	A,E	A	52,2	55,6	62,0	71,4	103,0	110,9	118,8	131,8	142,8	167,1	206,0	221,8	237,6	263,6	289,6
Peak current (LRA)	A,E	A	127,9	129,6	132,8	215,4	272,9	272,9	280,8	357,8	286,8	355,6	375,9	383,8	399,6	489,6	515,6

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Compressor																	
Type	A,E	type															
Compressor regulation	A,E	Type															
Number	A,E	no.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4
Circuits	A,E	no.	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Refrigerant	A,E	type															
Refrigerant charge	A,E	kg	9,2	9,5	11,0	11,0	18,5	20,0	25,0	25,0	23,0	32,0	42,0	42,0	50,0	50,0	50,0
System side heat exchanger																	
Type	A,E	type															
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	A,E	Type															
Sizes (in/out)	A,E	Ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"	3"	3"	3"	3"
Fan																	
Type	A,E	type															
Fan motor	A,E	type															
Number	A,E	no.	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate	A	m³/h	23000	26500	25000	27500	42000	47000	44000	50000	53000	64500	84000	94000	88400	102000	102000
	E	m³/h	17000	19800	17200	20600	30000	35000	31400	38200	41000	48900	60000	70800	64000	77600	88000
Sound data calculated in cooling mode (1)																	
Sound power level	A	dB(A)	84,1	87,9	86,3	88,9	85,2	87,9	86,4	89,5	91,9	86,7	88,2	90,9	89,4	92,5	92,5
	E	dB(A)	77,3	80,5	77,6	81,5	78,5	81,3	79,4	83,2	84,5	79,4	81,5	84,3	82,4	86,2	86,2
Sound pressure level (10 m)	A	dB(A)	52,4	56,1	54,6	57,1	53,3	56,0	54,5	57,5	59,9	54,5	55,9	58,6	57,1	60,2	60,2
	E	dB(A)	45,5	48,7	45,8	49,7	46,6	49,4	47,5	51,3	52,5	47,3	49,2	52,0	50,1	53,9	53,9

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Dimensions and weights																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	A,E	kg	790	790	828	832	1452	1456	1492	1507	1586	2194	2768	2783	2863	2889	2903
Dimensions and weights with pump/s																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Dimensions and weights with storage tank and pump/s																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
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