PRG-0282H-0654H

Reversible air/water heat pump

Cooling capacity 49 ÷ 143 kW
Heating capacity 51 ÷ 143 kW

- **R290 natural refrigerant gas**
- **Low refrigerant charge**
- **Production of hot water up to 75 °C**
- **High efficiency also at partial loads**
- **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 galvanized 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 75°C.

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.
Two scroll compressors are installed in each circuit in a tandem configuration.

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.

Refrigerant HC R290

Using the natural R290 refrigerant, classified A3 to ISO 817 (non-toxic, odourless and flammable refrigerant), the unit's environmental impact drops significantly.
Combining low refrigerant load (less than 5 kg per circuit) with ultra-low Global Warming Potential (GWP), these units boast practically negligible direct equivalent CO2 emissions.

- *The refrigerant gas detector, the double pressure relief valve (with exchange isolation valve) and the battery protection grilles are 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 use of the electronic expansion valve offers significant benefits (especially when the unit is working with partial loads), increasing the seasonal energy 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 PCO[5]

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:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.
- **"Noise Demand Limit" function**: only in non-quiet versions, this function limits the compressors within a time band to set a quiet operation profile, useful for example at night for greater acoustic comfort.

— Possibility to control two units in Master - Slave parallel mode. In this case, it is possible to use only one accessory PGD1 for both units.

ACCESSORIES

The units PRG-0282H-0654H must be controlled remotely through an appropriate accessory (remote control panelPGD1,,AERNET MULTICHILLER-EVO, AERLINK orPR4 (eliminare)) to be obligatorily and separately. Only in this way is it possible to modify some basic operating parameters or view the presence of any alarms, which avoids accessing risk and restricted access areas.

AER485P1: RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.
AERBACP: Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.
AERLINK: Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.
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 control boards). 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 (max. no. 9), always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
PR4: Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.
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.
RXBAS: Heater for finned coil heat exchanger.

COMPATIBILITY WITH VMF SYSTEM

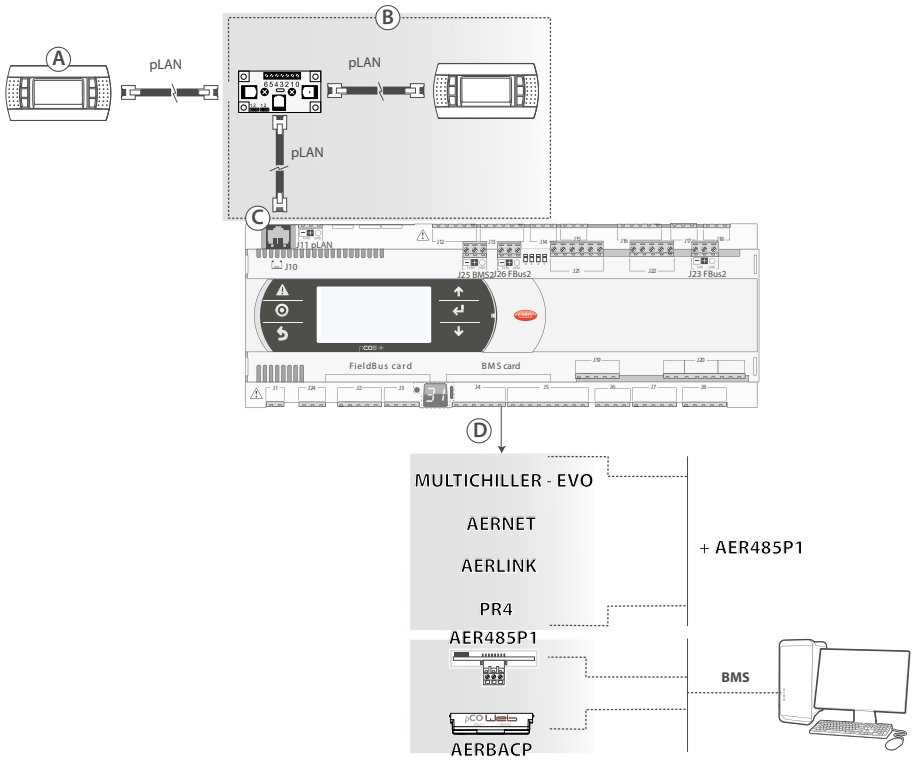
For more information about VMF system, refer to the dedicated documentation.

COMPATIBILITY BETWEEN CONTROL ACCESSORIES

Model	Ver	0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•
AERLINK	A,E	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER-EVO	A,E	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•

Remote panel

Model	Ver	0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
PR4	A,E	•	•	•	•	•	•	•	•	•	•



Key:

A Display on the unit.

B Control panel accessory "PGD1".

C Control panel connection port "PGD1".

D **BMS Card serial port:** where to connect 1 among the accessories "MULTICHILLER-EVO AERNET, ,AERLINK, PR4 (eliminare) but to be connected also must also have "AER485P1"; in the case of BMS communication with the accessories "AER485P1 or AERBACP" the only mandatory compatible accessory is the control panel "PGD1".

ACCESSORIES COMPATIBILITY

Antivibration

Ver	0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4										
A, E	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04, 09, K1, K2, K3, K4, W1, W2, W3, W4										
A, E	VT10	VT10	VT10	VT10	VT10	VT11	VT11	VT11	VT11	VT11

Device for peak current reduction

Ver	0282	0292	0302	0322	0332
A, E	DREPRG282	DREPRG292	DREPRG302	DREPRG322	DREPRG332

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

Ver	0504	0554	0604	0634	0654
A, E	DREPRG504	DREPRG554	DREPRG604	DREPRG634	DREPRG654

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

Power factor correction

Ver	0282	0292	0302	0322	0332
A, E	RIFPRG282	RIFPRG292	RIFPRG302	RIFPRG322	RIFPRG332

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

Ver	0504	0554	0604	0634	0654
A, E	RIFPRG504	RIFPRG554	RIFPRG604	RIFPRG634	RIFPRG654

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

Heater for finned coil heat exchanger

Ver	0282	0292	0302	0322	0332
A, E	RXBAS10	RXBAS10	RXBAS10	RXBAS10	RXBAS10

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

Ver	0504	0554	0604	0634	0654
A, E	RXBAS11	RXBAS11	RXBAS12	RXBAS12	RXBAS12

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

CONFIGURATOR

Field		Description
1,2,3		**PRG**
4,5,6,7		**Size** 0282, 0292, 0302, 0322, 0332, 0504, 0554, 0604, 0634, 0654
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	H	Heat pump
10		**Heat recovery**
	D	With desuperheater (3)
	°	Without heat recovery
11		**Version**
	A	High efficiency
	E	Silenced high efficiency (4)
12		**Coils**
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
	°	Copper-aluminium
13		**Fans**
	J	Inverter
	°	Standard with DCPX (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
	05	Storage tank with holes for heaters and single low head pump (6)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (6)
	07	Storage tank with holes for heaters and single high head pump (6)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (6)
		Double loop
	09	Storage tank with double loop and intermediate heat exchanger
		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 (7)
	W2	Double low head pump + Storage tank + variable speed inverter (7)
	W3	Single high head pump + Storage tank + variable speed inverter (7)
	W4	Double high head pump + Storage tank + variable speed inverter (7)

(1) Water produced from 4 °C ÷ 20 °C
(2) Processed water temperature 8 °C ÷ -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4. Not compatible with a desuperheater.
(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) Sizes 0282-0292-0302-0322-0332 are only available in low noise version (E).
(5) Option not available only for sizes 0504-0554-0604-0634-0654 version E.
(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.
(7) Not available with Low temperature electronic thermostatic valve "Z"

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

PRG - A

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J, °											
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	-	94,5	103,9	123,7	133,6	143,1
Input power	kW	-	-	-	-	-	35,8	40,5	40,8	45,1	49,5
Cooling total input current	A	-	-	-	-	-	67,6	81,8	92,2	105,8	119,4
EER	W/W	-	-	-	-	-	2,64	2,56	3,04	2,96	2,89
Water flow rate system side	l/h	-	-	-	-	-	16267	17888	21319	23015	24641
Pressure drop system side	kPa	-	-	-	-	-	30	36	47	54	62
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	-	102,3	113,2	124,7	134,1	143,1
Input power	kW	-	-	-	-	-	32,0	35,5	39,6	43,4	47,0
Heating total input current	A	-	-	-	-	-	63,8	77,0	91,2	104,8	117,8
COP	W/W	-	-	-	-	-	3,20	3,19	3,15	3,09	3,04
Water flow rate system side	l/h	-	-	-	-	-	17738	19623	21615	23253	24809
Pressure drop system side	kPa	-	-	-	-	-	31	37	48	55	63

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PRG - E

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J											
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	49,3	54,3	60,5	65,2	70,3	91,8	101,6	119,1	128,3	137,0
Input power	kW	16,5	18,6	20,3	22,6	25,0	35,7	40,6	40,1	44,8	49,6
Cooling total input current	A	35,3	42,2	50,1	56,9	63,8	67,5	82,0	91,0	104,8	118,8
EER	W/W	2,99	2,92	2,98	2,88	2,81	2,57	2,50	2,97	2,87	2,76
Water flow rate system side	l/h	8486	9361	10417	11227	12117	15797	17489	20523	22099	23601
Pressure drop system side	kPa	30	37	37	42	49	28	35	43	50	56
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	51,2	55,9	61,9	66,3	70,7	102,3	113,2	124,7	134,1	143,1
Input power	kW	15,4	17,1	18,8	20,4	22,2	32,1	35,6	39,6	43,4	47,0
Heating total input current	A	34,6	41,1	49,2	55,5	62,0	64,1	77,3	91,8	105,4	118,5
COP	W/W	3,33	3,27	3,28	3,25	3,19	3,19	3,18	3,15	3,09	3,04
Water flow rate system side	l/h	8872	9688	10728	11490	12242	17738	19623	21616	23254	24810
Pressure drop system side	kPa	33	39	39	44	50	36	44	48	55	62

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °											
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	49,3	54,3	60,5	65,2	70,3	-	-	-	-	-
Input power	kW	16,5	18,6	20,3	22,6	25,0	-	-	-	-	-
Cooling total input current	A	35,3	42,2	50,1	56,9	63,8	-	-	-	-	-
EER	W/W	2,99	2,92	2,98	2,88	2,81	-	-	-	-	-
Water flow rate system side	l/h	8486	9361	10417	11227	12117	-	-	-	-	-
Pressure drop system side	kPa	30	37	37	42	49	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	51,2	55,9	61,9	66,3	70,7	-	-	-	-	-
Input power	kW	15,4	17,1	18,8	20,4	22,2	-	-	-	-	-
Heating total input current	A	34,6	41,1	49,2	55,5	62,0	-	-	-	-	-
COP	W/W	3,33	3,27	3,28	3,25	3,19	-	-	-	-	-
Water flow rate system side	l/h	8872	9688	10728	11490	12242	-	-	-	-	-
Pressure drop system side	kPa	33	39	39	44	50	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; 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

PRG - A

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J, °											
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	-	-	-	-	-	130,8	144,0	173,7	185,8	197,2
Input power	kW	-	-	-	-	-	39,8	45,0	44,4	49,4	54,5
Cooling total input current	A	-	-	-	-	-	74,4	90,0	98,9	114,0	129,2
EER	W/W	-	-	-	-	-	3,29	3,20	3,91	3,76	3,62
Water flow rate system side	l/h	-	-	-	-	-	22619	24890	30031	32116	34090
Pressure drop system side	kPa	-	-	-	-	-	58	70	93	105	118
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	-	-	-	-	-	104,9	115,3	127,0	135,5	144,1
Input power	kW	-	-	-	-	-	27,3	30,0	33,7	37,0	40,1
Heating total input current	A	-	-	-	-	-	54,2	64,9	77,2	89,0	100,1
COP	W/W	-	-	-	-	-	3,85	3,84	3,77	3,66	3,60
Water flow rate system side	l/h	-	-	-	-	-	18135	19911	21938	23418	24903
Pressure drop system side	kPa	-	-	-	-	-	32	38	49	56	63

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

PRG - E

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J											
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	68,5	75,4	84,3	90,1	97,0	126,2	139,9	166,0	176,9	187,2
Input power	kW	18,3	20,8	22,5	25,1	27,6	40,3	45,7	44,3	49,7	55,3
Cooling total input current	A	38,5	46,4	54,4	62,1	69,2	75,6	91,4	99,1	114,8	130,6
EER	W/W	3,75	3,62	3,75	3,59	3,51	3,13	3,06	3,75	3,56	3,38
Water flow rate system side	l/h	11856	13054	14611	15584	16779	21823	24180	28702	30587	32356
Pressure drop system side	kPa	59	72	72	81	94	54	66	85	95	106
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	52,5	56,8	63,0	66,9	72,0	104,8	115,1	126,9	135,5	144,0
Input power	kW	13,0	14,4	15,9	17,2	18,7	27,2	30,3	33,5	36,7	39,7
Heating total input current	A	29,1	34,5	41,3	46,6	52,1	54,2	65,5	77,2	88,7	99,8
COP	W/W	4,04	3,94	3,97	3,88	3,85	3,86	3,80	3,79	3,69	3,63
Water flow rate system side	l/h	9062	9817	10889	11546	12426	18110	19882	21926	23404	24884
Pressure drop system side	kPa	34	40	40	45	52	37	45	50	56	63

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °											
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	68,5	75,4	84,3	90,1	97,0	-	-	-	-	-
Input power	kW	18,3	20,8	22,5	25,1	27,6	-	-	-	-	-
Cooling total input current	A	38,5	46,4	54,4	62,1	69,2	-	-	-	-	-
EER	W/W	3,75	3,62	3,75	3,59	3,51	-	-	-	-	-
Water flow rate system side	l/h	11856	13054	14611	15584	16779	-	-	-	-	-
Pressure drop system side	kPa	59	72	72	81	94	-	-	-	-	-
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	52,5	56,8	63,0	66,9	72,0	-	-	-	-	-
Input power	kW	13,0	14,4	15,9	17,2	18,7	-	-	-	-	-
Heating total input current	A	29,1	34,5	41,3	46,6	52,1	-	-	-	-	-
COP	W/W	4,04	3,94	3,97	3,88	3,85	-	-	-	-	-
Water flow rate system side	l/h	9062	9817	10889	11546	12426	-	-	-	-	-
Pressure drop system side	kPa	34	40	40	45	52	-	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA - STANDARD/INVERTER FANS

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J												
SEER - 12/7 (EN 14825: 2018) (1)												
SEER	A	W/W	-	-	-	-	-	4,11	4,01	4,61	4,55	4,43
	E	W/W	4,36	4,38	4,37	4,34	4,35	4,06	3,97	4,54	4,49	4,37
Seasonal efficiency	A	%	-	-	-	-	-	161,47	157,50	181,28	179,15	174,34
	E	%	171,34	172,18	171,98	170,59	171,01	159,56	155,60	178,73	176,80	171,92
SEER - 23/18 (EN 14825: 2018) (1)												
SEER	A	W/W	-	-	-	-	-	5,06	4,93	5,62	5,52	5,31
	E	W/W	5,45	5,45	5,31	5,26	5,24	4,06	3,97	4,54	4,49	4,37
Seasonal efficiency	A	%	-	-	-	-	-	199,20	194,04	221,76	217,92	209,47
	E	%	214,82	215,18	209,56	207,44	206,66	159,56	155,60	178,73	176,80	171,92

(1) Calculation performed with VARIABLE water flow rate

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °												
SEER - 12/7 (EN 14825: 2018) (1)												
SEER	A	W/W	-	-	-	-	-	3,96	3,86	4,49	4,43	4,32
	E	W/W	4,29	4,31	4,31	4,27	4,28	-	-	-	-	-
Seasonal efficiency	A	%	-	-	-	-	-	155,35	151,49	176,41	174,29	169,62
	E	%	168,62	169,41	169,27	167,75	168,28	-	-	-	-	-
SEER - 23/18 (EN 14825: 2018) (1)												
SEER	A	W/W	-	-	-	-	-	4,85	4,73	5,49	5,40	5,21
	E	W/W	5,38	5,39	5,26	5,20	5,17	-	-	-	-	-
Seasonal efficiency	A	%	-	-	-	-	-	191,06	186,20	216,59	212,83	205,36
	E	%	212,20	212,61	207,30	204,96	203,76	-	-	-	-	-

(1) Calculation performed with VARIABLE water flow rate

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J												
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)												
Efficiency energy class	A		-	-	-	-	-	-	-	-	-	-
	E		A++	A++	A++	A++	A++	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	-	-	-	-	-
	E	%	156,55	155,98	155,53	155,63	157,12	-	-	-	-	-
SCOP	A	W/W	-	-	-	-	-	-	-	-	-	-
	E	W/W	3,99	3,97	3,96	3,97	4,00	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	-	-	-	-	-
	E	kW	40,85	43,36	50,06	52,18	53,99	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)												
Efficiency energy class	A		-	-	-	-	-	-	-	-	-	-
	E		A+	A+	A+	A+	A++	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	-	-	-	-	-
	E	%	123,14	122,78	123,70	123,84	125,66	-	-	-	-	-
SCOP	A	W/W	-	-	-	-	-	-	-	-	-	-
	E	W/W	3,15	3,14	3,17	3,17	3,22	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	-	-	-	-	-
	E	kW	39,90	42,10	49,10	51,20	52,90	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)												
SCOP	A,E	W/W	-	-	-	-	-	4,08	3,87	4,04	3,95	4,02
ηsh	A,E	%	-	-	-	-	-	160,04	151,64	158,46	154,90	157,62
Pdesignh	A	kW	-	-	-	-	-	81,43	87,59	97,03	103,17	111,52
	E	kW	-	-	-	-	-	81,60	87,81	97,02	103,18	111,52
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)												
SCOP	A,E	W/W	-	-	-	-	-	3,30	3,14	3,31	3,30	3,34
ηsh	A,E	%	-	-	-	-	-	129,04	122,74	129,26	128,91	130,63
Pdesignh	A	kW	-	-	-	-	-	79,70	85,10	94,00	102,70	111,00
	E	kW	-	-	-	-	-	80,00	85,40	94,10	102,80	111,20

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °												
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)												
Efficiency energy class	A		-	-	-	-	-	-	-	-	-	-
	E		A++	A++	A++	A++	A++	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	-	-	-	-	-
	E	%	153,35	152,80	152,36	152,45	155,47	-	-	-	-	-
SCOP	A	W/W	-	-	-	-	-	-	-	-	-	-
	E	W/W	3,91	3,90	3,88	3,89	3,96	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	-	-	-	-	-
	E	kW	40,84	43,36	50,06	52,18	53,99	-	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)												
Efficiency energy class	A		-	-	-	-	-	-	-	-	-	-
	E		A+	A+	A+	A+	A+	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	-	-	-	-	-
	E	%	120,95	120,70	121,68	122,25	124,65	-	-	-	-	-
SCOP	A	W/W	-	-	-	-	-	-	-	-	-	-
	E	W/W	3,10	3,09	3,12	3,13	3,19	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	-	-	-	-	-
	E	kW	39,90	42,10	49,10	51,20	52,90	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)												
SCOP	A	W/W	-	-	-	-	-	3,95	3,75	3,92	3,83	3,90
	E	W/W	-	-	-	-	-	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	155,15	147,00	153,61	150,17	152,80
	E	%	-	-	-	-	-	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	81,43	87,59	97,03	103,17	111,52
	E	kW	-	-	-	-	-	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)												
SCOP	A	W/W	-	-	-	-	-	3,22	3,06	3,23	3,20	3,30
	E	W/W	-	-	-	-	-	-	-	-	-	-
ηsh	A	%	-	-	-	-	-	125,67	119,30	126,09	125,15	128,88
	E	%	-	-	-	-	-	-	-	-	-	-
Pdesignh	A	kW	-	-	-	-	-	79,70	85,10	94,00	102,70	111,00
	E	kW	-	-	-	-	-	-	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	-	115,8	123,8	135,7	147,7	159,7
	E	A	57,3	61,3	66,4	72,4	78,4	115,8	123,8	135,7	147,7	159,7
Peak current (LRA)	A	A	-	-	-	-	-	235,8	250,8	262,7	307,7	319,7
	E	A	177,3	188,3	193,4	232,4	238,4	235,8	250,8	262,7	307,7	319,7

Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Compressor												
Type	A,E	type						Scroll				
Compressor regulation	A,E	Type						On-Off				
Number	A	no.	-	-	-	-	-	4	4	4	4	4
	E	no.	2	2	2	2	2	4	4	4	4	4
Circuits	A	no.	-	-	-	-	-	2	2	2	2	2
	E	no.	1	1	1	1	1	2	2	2	2	2
Refrigerant	A,E	type						R290				
Refrigerant load circuit 1 (1)	A	kg	-	-	-	-	-	4,2	4,2	4,9	4,9	4,9
	E	kg	4,2	4,2	4,9	4,9	4,9	4,2	4,2	4,9	4,9	4,9
Refrigerant load circuit 2 (1)	A,E	kg	-	-	-	-	-	4,2	4,2	4,9	4,9	4,9
Potential global heating	A,E	GWP						3kgCO_2eq				
System side heat exchanger												
Type	A,E	type						Brazed plate				
Number	A	no.	-	-	-	-	-	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
System side heat exchanger												
Type	A,E	type						Brazed plate				
Number	A	no.	-	-	-	-	-	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Integrated hydronic kit: 00												
System side hydraulic connections												
Connections (in/out)	A,E	Type						Grooved joints				
Sizes (in/out)	A	Ø	-	-	-	-	-	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	E	Ø						2 1/2"				

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J												
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	-	-	-	-	-	86,6	86,6	87,2	87,2	87,2
	E	dB(A)	82,0	82,0	82,2	84,0	84,0	84,6	84,6	84,7	85,3	85,3
Sound data calculated in heating mode (1)												
Sound power level	A	dB(A)	-	-	-	-	-	86,6	86,6	87,2	87,2	87,2
	E	dB(A)	82,0	82,0	82,2	84,0	84,0	86,0	86,0	86,6	87,2	87,2

(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).

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °												
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	-	-	-	-	-	86,6	86,6	87,2	87,2	87,2
	E	dB(A)	82,0	82,0	82,2	84,0	84,0	-	-	-	-	-
Sound data calculated in heating mode (1)												
Sound power level	A	dB(A)	-	-	-	-	-	86,6	86,6	87,2	87,2	87,2
	E	dB(A)	82,0	82,0	82,2	84,0	84,0	-	-	-	-	-

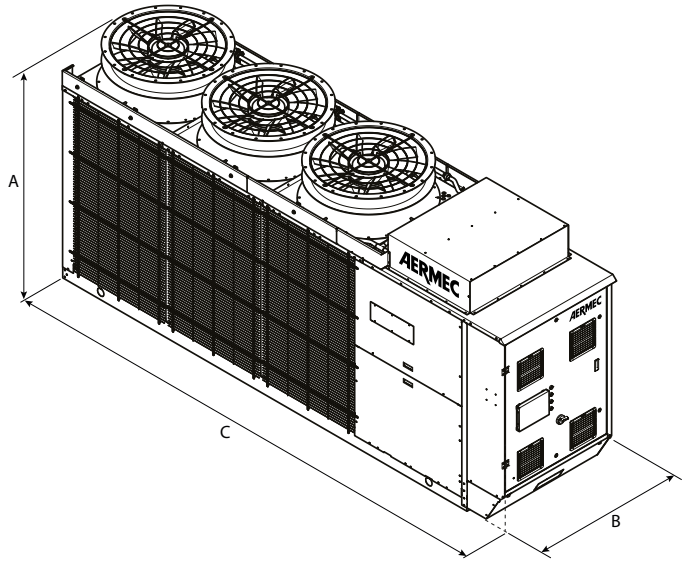
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: J												
Fan												
Type	A	type	-	-	-	-	-	Axial	Axial	Axial	Axial	Axial
	E	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fan motor	A	type	-	-	-	-	-	Inverter	Inverter	Inverter	Inverter	Inverter
	E	type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
Number	A	no.	-	-	-	-	-	2	2	3	3	3
	E	no.	6	6	8	8	8	2	2	3	3	3
Air flow rate	A	m^3/h	-	-	-	-	-	38211	38211	58970	58970	58970
	E	m^3/h	22937	22937	28830	28830	28830	31935	31935	42553	42553	42553

Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Fans: °												
Fan												
Type	A	type	-	-	-	-	-	Axial	Axial	Axial	Axial	Axial
	E	type	Axial	Axial	Axial	Axial	Axial	-	-	-	-	-
Fan motor	A	type	-	-	-	-	-	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX
	E	type	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX	Asynchronous + DCPX	-	-	-	-	-
Number	A	no.	-	-	-	-	-	2	2	3	3	3
	E	no.	6	6	8	8	8	-	-	-	-	-
Air flow rate	A	m^3/h	-	-	-	-	-	38211	38211	58970	58970	58970
	E	m^3/h	22937	22937	28830	28830	28830	-	-	-	-	-

DIMENSIONS



Size			0282	0292	0302	0322	0332	0504	0554	0604	0634	0654
Integrated hydronic kit: 00												
Dimensions and weights												
A	A	mm	-	-	-	-	-	1980	1980	1980	1980	1980
	E	mm	1920	1920	1920	1920	1920	1980	1980	1980	1980	1980
B	A	mm	-	-	-	-	-	1108	1108	1108	1108	1108
	E	mm	1108	1108	1108	1108	1108	1108	1108	1108	1108	1108
C	A	mm	-	-	-	-	-	3635	3635	4423	4423	4423
	E	mm	3375	3375	3375	3375	3375	3635	3635	4423	4423	4423

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