ANLI

Reversible air/water heat pump

Cooling capacity 29,0 ÷ 42,3 kW – Heating capacity 31,4 ÷ 33,3 kW

- **Version with built-in hydronic kit inverter**
- **High efficiency also at partial loads**
- **Production of hot domestic water (d.H.W.)**

DESCRIPTION

Reversible inverter heat pump for outdoor use suitable for responding to heating / cooling requests and the production of domestic hot water. Equipped with inverter compressor, axial fans, external copper coils with aluminum fins, plate heat exchanger on the system side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
It can be combined in systems with hydronic terminals or even with traditional radiators and perfectly meets the needs of the residential market: low noise, easy installation.

VERSIONS

° Standard
P With on/off pump
X With inverter pump

FEATURES

Operating field

Work at full load up to 42 °C outside air temperature in the summer season with the possibility of producing hot water up to 60 °C (for more details refer to the technical documentation).

Components

— 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
— Differential pressure switch / flow switch as standard
— Water filter
— High efficiency heat exchangers
— Axial flow fan units for extremely quiet operation
— Fitted with EMC filters

Integrated hydronic kit

The built-in hydraulic kit includes:
— Expansion vessel
— Safety valve water side
— Air vent valve

Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
— ΔP constant: the differential pressure between pump inlet and outlet is kept constant, the number of revolutions is reduced with the progressive closing of the terminals;
— ΔP variable: the differential pressure is reduced as the flow rate decreases, to take into account the lower pressure drops along the supply pipes to the terminals (recommended if the development of these pipes is high).

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.
— 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).

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
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.

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), 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. For more information about SAF refer to the dedicated documentation.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
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: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
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.

- *For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.*

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.

- *NB: if the SAF thermo-accumulator is used, the MOD485-BL accessory is not required.*

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

Model	Ver	101
AERBAC-MODU	°,P,X	•
AERLINK	°,P,X	•
AERSET	°,P,X	•
MODU-485BL	°,P,X	•
MULTICONTROL	°,P,X	•
PR3	°,P,X	•
SAF (1)	°,P,X	•
SDHW (2)	°,P,X	•
SGD	°,P,X	•
SPLW (3)	°,P,X	•
VMF-CRP	°,P,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.

Remote panel

Model	Ver	101
PR4	°,P,X	•

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

BSKW: Electric heater kit

Model	Ver	101
BS6KW400T	°,P,X	•
BS9KW400T	°,P,X	•

DCPX: Condensation control temperature

Ver	101
°, P, X	DCPX53

VT: Antivibration

Ver	101
°, P, X	VT15

KR: electric heater for the heat exchanger

Ver	101
°, P, X	KR100

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

KRB: Electric heater for the base

Ver	101
°, P, X	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

CONFIGURATOR

Field	Description
1,2,3,4	**ANLI**
5,6,7	**Size** 101
8	**Model**
H	Heat pump
9	**Version**
°	Standard
P	With on/off pump
X	With inverter pump
10	**Heat recovery**
°	Without heat recovery
11	**Coils**
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pieps-Coated aluminium fins
°	Alluminium
12	**Operating field (1)**
°	Electronic thermostatic expansion valve
13	**Evaporator**
°	Standard
14	**Power supply**
T	400V 3N ~ 50Hz

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

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

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	16,0
EER	W/W	2,48
Water flow rate system side	l/h	4986
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	16,0
COP	W/W	2,78
Water flow rate system side	l/h	5458
Pressure drop system side	kPa	59

(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.

ANLI - (HX)

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,3
Input power	kW	11,9
Cooling total input current	A	18,0
EER	W/W	2,47
Water flow rate system side	l/h	4986
Useful head 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	17,0
COP	W/W	2,70
Water flow rate system side	l/h	5458
Useful head system side	kPa	158

(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.

ANLI - (HP)

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,2
Input power	kW	11,7
Cooling total input current	A	17,0
EER	W/W	2,49
Water flow rate system side	l/h	4986
Useful head system side	kPa	92
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,2
Input power	kW	11,4
Heating total input current	A	17,0
COP	W/W	2,74
Water flow rate system side	l/h	5458
Useful head system side	kPa	76

(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

ANLI - (H°)

Size		101
Cooling performance 23 °C / 18 °C (1)		
Cooling capacity	kW	42,3
Input power	kW	13,1
Cooling total input current	A	19,0
EER	W/W	3,22
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	107
Heating performance 30 °C / 35 °C (2)		
Heating capacity	kW	33,3
Input power	kW	9,5
Heating total input current	A	13,0
COP	W/W	3,51
Water flow rate system side	l/h	5763
Pressure drop system side	kPa	66

(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.

ANLI - (HX)

Size		101
Cooling performance 23 °C / 18 °C (1)		
Cooling capacity	kW	42,3
Input power	kW	14,3
Cooling total input current	A	21,0
EER	W/W	2,96
Water flow rate system side	l/h	7301
Useful head system side	kPa	81
Heating performance 30 °C / 35 °C (2)		
Heating capacity	kW	33,3
Input power	kW	10,5
Heating total input current	A	15,0
COP	W/W	3,17
Water flow rate system side	l/h	5763
Useful head system side	kPa	147

(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.

ANLI - (HP)

Size			101
Cooling performance 23 °C / 18 °C (1)			
Cooling capacity		kW	42,3
Input power		kW	14,3
Cooling total input current		A	21,0
EER		W/W	2,96
Water flow rate system side		l/h	7301
Useful head system side		kPa	81
Heating performance 30 °C / 35 °C (2)			
Heating capacity		kW	33,3
Input power		kW	10,5
Heating total input current		A	15,0
COP		W/W	3,17
Water flow rate system side		l/h	5763
Useful head system side		kPa	147

(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

Size			101
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
SEER	°	W/W	3,81
	P,X	W/W	3,57
ηsc	°	%	149,20
	P,X	%	139,80
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)			
Pdesignh	°,P,X	kW	-
SCOP	°,X	W/W	3,23
	P	W/W	3,25
ηsh	°,X	%	126,00
	P	%	127,00
Efficiency energy class	°,P,X		A+

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

ELECTRIC DATA

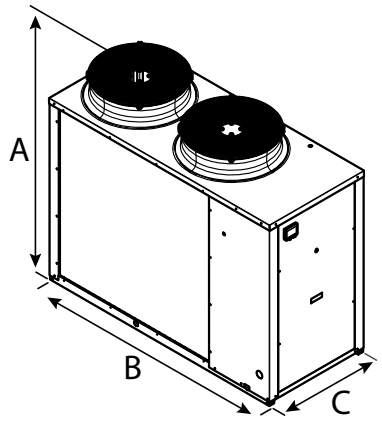
Size			101
Electric data			
Maximum current (FLA)	°	A	21,0
	P	A	24,4
	X	A	25,5
Peak current (LRA)	°,P,X	A	-

GENERAL TECHNICAL DATA

Size			101
Compressor			
Type	°,P,X	type	Scroll
Number	°,P,X	no.	1
Compressor regulation	°,P,X	Type	Inverter
Circuits	°,P,X	no.	1
Refrigerant	°,P,X	type	R410A
Refrigerant charge (1)	°,P,X	kg	4,5
System side heat exchanger			
Type	°,P,X	type	Brazed plate
Number	°,P,X	no.	1
Hydraulic connections			
Connections (in/out)	°,P,X	Type	Gas - F
Sizes (in/out)	°,P,X	Ø	1"1/4
Fan			
Type	°,P,X	type	Axial
Fan motor	°,P,X	type	On/Off
Number	°,P,X	no.	2
Air flow rate	°,P,X	m^3/h	13200
Sound data calculated in cooling mode (2)			
Sound power level	°,P,X	dB(A)	76,0
Sound pressure level (10 m)	°,P,X	dB(A)	44,5

(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.
(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



Size			101
Dimensions and weights			
A	°,P,X	mm	1450
B	°,P,X	mm	1750
C	°,P,X	mm	750
Empty weight	°	kg	293
	P,X	kg	308

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