ANLI

Reversible heat pumps inverter
Air/water outdoor installation.
Axial fans and scroll compressor
Cooling capacity 29 kW
Heating capacity 31 kW

HFC Refrigerant R410A

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

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

Variable Multi Flow VMF INVERTER TECHNOLOGY

- **STANDARD VERSION**
- **VERSION WITH BUILT–IN HYDRONIC KIT INVERTER**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

Features

Reversible Heat pumps units
Version
ANLI_H Heat pumps, without hydronic kit
Versions with hydronic kit
ANLI_HX with standard pump inverter

- **Operational limits (1)**
  - max. external air temperature 42°C
  - max. Leaving water temperature 60°C heating mode
- Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
- Perfect water temperature control even in systems with low water content
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation
- Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
  Constant ΔP: maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close
  Variable ΔP: reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)
- Water filter, differential pressure switch, depending on the model, fitted on all units.
- High efficiency heat exchangers with trace heating as standard
- Axial flow fan units for extremely quiet operation
- Fitted with EMC filters
- The built-in hydraulic kit includes the main water circuit components
- Controller:
  - Aermec Modu_Control circuit board
  - User interface with 6 soft-touch keys, 4 digit display, 6 LEDs
  - Control of the leaving water temperature with PID algorithm
  - Set-point compensation based on the external air temperature
  - Display of operating frequency
  - Control of compressor ramp speed
  - Auto-adaptive intelligent defrosting
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory (when provided)
  - Load limiting safety control by reducing compressor speed
  - High and low pressure transducers
  - Automatic reset of alarms before tripping
  - Alarms history

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

Accessories

- **MODU-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.
- **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.

ANLI_H	vers	101
MODU-485BL	All	•
AERSET	All	•
MULTICONTROL	All	•
SPLW	All	•
SDHW	All	•
VMF-CRP	All	•
PR3	All	•
DCPX	All	53
VT	All	15
BS6KW400T	400V/3N	•
BS9KW400T	400V/3N	•
SAF		•
Accessories factory fitted only		
KR	All	2
KRB	All	3

Unit Configurator

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

Field	Code
1,2,3,4	ANLI
5,6,7	**Size**
	101
8	**Model**
	H Heat pump
9	**Versions**
	° Standard
	X With inverter pump
	P With on/off pump
10	**Heat recovery**
	° Without heat recovery
11	**Coil**
	° Aluminium
	R Copper
	S Tinned copper
	V In painted aluminium-copper (epoxy paint)
12	**Field of use**
	° Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13	**Evaporator**
	° Standard
14	**Power supply**
	T 400V/3N/50Hz

Technical Data

	ANLI - H			101
12°C / 7°C	Cooling capacity	(1)	kW	28,77
	Total input power	(1)	kW	11,74
	EER	(1)		2,45
	ESEER	(1)		4,11
	Cooling Energy Class Eurovent	(1)		E
	Water flow rate	(1)	l/h	4963
	Pressure drop	(1)	kPa	50
40°C / 45°C	Heating capacity	(2)	kW	31,7
	Total input power	(2)	kW	11,4
	COP	(2)		2,78
	Heating Energy Class Eurovent	(2)		D
	Water flow rate	(2)	l/h	5484
	Pressure drop	(2)	kPa	59
23°C / 18°C	Cooling capacity	(3)	kW	41,81
	Total input power	(3)	kW	13,66
	EER	(3)		3,06
	Cooling Energy Class Eurovent	(3)		G
	Water flow rate	(3)	l/h	7301
	Pressure drop	(3)	kPa	104
30°C / 35°C	Heating capacity	(4)	kW	33,62
	Total input power	(4)	kW	9,83
	COP	(4)		3,42
	Heating Energy Class Eurovent	(4)		F
	Water flow rate	(4)	l/h	5764
	Pressure drop	(4)	kPa	67
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW			
	Pdesignh	(5)		30
	SCOP	(5)		2,73
	ηs	(5)		106
	Efficiency Energy Class	(6)		A+
	Cooling mode for low temperature			
	ηsc			149,2
	SEER			3,81

	ANLI - HX/HP			101	
12°C / 7°C	Cooling capacity	(1)	kW	29,4	
	Total input power	(1)	kW	11,71	
	EER	(1)		2,51	
	ESEER	(1)		4,4	
	Cooling Energy Class Eurovent	(1)		D	
	Water flow rate	(1)	l/h	4963	
	High static pressure	(1)	kPa	92	
40°C / 45°C	Heating capacity	(2)	kW	31,03	
	Total input power	(2)	kW	11,37	
	COP	(2)		2,73	
	Heating Energy Class Eurovent	(2)		D	
	Water flow rate	(2)	l/h	5484	
	High static pressure	(2)	kPa	85	
23°C / 18°C	Cooling capacity	(3)	kW	42,39	
	Total input power	(3)	kW	13,85	
	EER	(3)		3,06	
	Cooling Energy Class Eurovent	(3)		F	
	Water flow rate	(3)	l/h	7301	
	High static pressure	(3)	kPa	3,64	
30°C / 35°C	Heating capacity	(4)	kW	32,93	
	Total input power	(4)	kW	9,8	
	COP	(4)		3,36	
	Heating Energy Class Eurovent	(4)		F	
	Water flow rate	(4)	l/h	5764	
	High static pressure	(4)	kPa	71,64	
	Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW				
				HX	**HP**
	Pdesignh	(5)		29	30
	SCOP	(5)		3,23	3,25
	ηs	(5)		126	127
	Efficiency Energy Class	(6)		A+	A+
	Cooling mode for low temperature				
	ηsc			139,8	
	SEER			3,57	

Date (14511:2013)

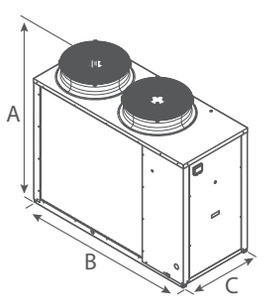
(1) Water evaporator 12°C/7°C, External air 35°C
(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(3) Water evaporator 23°C/18°C, External air 35°C
(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(5) Efficiencies for low temperature Applications (35°C)

Technical Data

				101
				F1
Electrical data				
Power supply			V/ph/Hz	400V/3N/50Hz
Total input current (cooling)	(6)	H	A	16,30
	(6)	HX/HP	A	17,98
Total input current (heating)	(7)	H	A	15,70
	(7)	HX/HP	A	17.45
Total input current (heating)	(8)	H	A	13,57
	(8)	HX/HP	A	15.21
Maximum current (FLA)	(9)	H	A	21,00
Starting current (LRA)	(9)	H	A	30,00
Compressor				
Compressors			Type/n°	scroll/1
Circuit			n°	1
Refrigerant			Type	R410A
Heat exchanger system side				
Exchanger			Type/n°	Plate/1
hydraulic connections (In/Out)		(in/out)	Ø	1"1/4
Axial fans				
Fan			Type/n°	inverter/2
Air flow rate (cooling)			m³/h	13200
Sound data (cooling mode)				
Sound power level			dB(A)	76,0
Sound pressure level			dB(A)	44,0

(6) Water evaporator 12°C/7°C, External air 35°C
(7) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
(8) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
(9) Unit standar configuration without hydronic kit
Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).
Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions and weight



ANLI 101H

ANLI				**101**
A		mm	All	1450
B		mm	All	1750
C		mm	All	750
Weight	**H**	kg		293
	HX/HP	kg		308

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