Air conditioning fan heaters with EC motor

AREO i 19 - 62 kW

Inverter Technology

EC Motor | 2 pipes systems | Vertical installation | Heating | Cooling

Reliability and energy efficiency at the top of its category

The new AREO i series combines the reliability and sturdiness of the on/off version with the innovation of Inverter technology. The AREO i series is equipped with brushless inverters (EC) integrated with the motor, which guarantees accurate adjustment of the rotation speed and maximum adaptability to real-time thermal load.
Innovative Inverter technology makes it possible to achieve an exceptional degree of aeraulic efficiency and a consequent reduction in seasonal power consumption of up to 50% in comparison to the traditional version with AC motor.
The rounded shape of the cabinet gives the product an especially unique design.
The AREO i range consists of 8 models to be wall mounted. AREO i is ideal for both heating and cooling due to an innovative system for collecting condensate and additional insulation inside the cabinet.
The range includes 3 different construction sizes that are also available with 4-row heat exchangers to allow proper operation with hot water produced by the heat pump.

PLUS

- Low sound levels
- Wide operating range (up to 65 °C intake air)
- Electric motor, class F, approved for continuous operation
- Fan and motor are integrated to provide considerably increased reliability

ACCESSORIES

Electronic microprocessor control panels with display	
DIST	MY COMFORT controller spacer for wall mounting
MCLE	Microprocessor control with display MY COMFORT LARGE
MCSWE	Water sensor for MYCOMFORT and EVO controllers
Power interface and regulating louver controllers	
CSD	Recess mounted controller for opening and closing the SM motor-driven regulating louver
Accessories	
VA	Auxiliary tray for collecting condensate
Fixation templates	
DFC	Template for column installation
DFO	Adjustable template for wall/column installation
DFP	Template for wall installation
Protective grill for gyms (ball shield)	
R	Protective net for gyms
Diffusors	
DO	Two-row adjustable fin diffuser
External air intake	
PAE	External air intake
PAEM	Manual mixing louver
PAEMM	Motor driven mixer louver, 24 V power supply with spring return
External air intake rain protection grille	
GR	Air intake grille with subframe

MAIN COMPONENTS

Fan drive assembly
The electric fan and EC motor are a single integrated unit optimized to achieve maximum aeraulic efficiency. In fact, conformity to ERP is guaranteed, even for the versions with single-phase power supply.

Electric motor
Tropicalized motor directly coupled to an external rotor, standard, with the following features:
- equipped with internal thermal protection
- windings in class F
- protection rating IP54

Axial fan
With blades with an optimized aerodynamic profile, statically balanced, inserted in a housing that enhances aeraulic performance and minimizes noise.

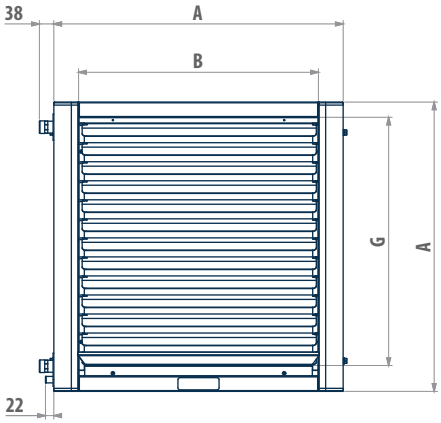
Microprocessor controller (accessory)
The advanced microprocessor control unit adjusts the fan speed of the brushless motor between 0 and 100%, so that in all partial load conditions the indoor unit will operate at a reduced speed with considerably reduced noise emissions and power consumption.

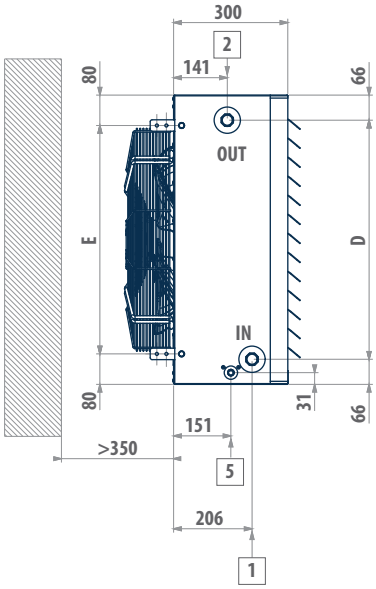
Cabinet
Pre-painted steel sheet cabinet complete with ABS corner trims, adjustable aluminium louvers (spring-operated) placed on the air outlet which enable an optimal distribution of air within the room to be heated.

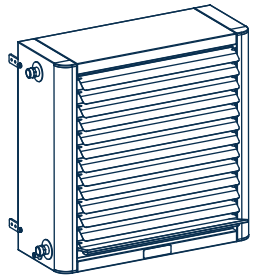
Heat exchanger
High conductivity heat exchanger made with copper piping and aluminium fins assuring higher heat exchange than standard iron piping exchangers.

DIMENSIONAL DRAWINGS

AREO i







LEGEND	
1	Water inlet connection, male gas
2	Water outlet connection, male gas
3	Condensate discharge Ø 17 mm

AREO i	A mm	B mm	D mm	E mm	G mm	1 "	2 "	kg
33MDF - 34MDF	660	530	528	500	580	1	1	33-34-36
43MDF - 43TDC	760	630	628	600	680	1	1	39-41-42
63MDF - 63TDF - 63MDC - 63TDC	960	830	828	800	880	1 1/4	1 1/4	58-61-63

RATED TECHNICAL DATA - HEATING MODE

AREO i			33MDF	34MDF	43MDF	43TDC	63MDC	63MDF	63TDC	63TDF
Power supply		V-ph-Hz	230-1-50	230-1-50	230-1-50	400-3-50	230-1-50	230-1-50	400-3-50	400-3-50
Air flow rate max heating		m^3/h	3400	3255	5575	7606	9006	7449	10734	8282
Heating capacity	(1)	kW	19,0	22,3	31,0	36,4	59,9	56,2	68,6	62,2
Water flow	(1)	l/h	1664	1954	2719	3183	5249	4921	6005	5448
Water pressure drop	(1)	kPa	5	9	12	16	13	11	16	13
Sound power level	(2)	dB(A)	77	79	76	80	78	75	84	83
Power input	(3)	W	189	193	388	918	693	414	1001	655

(1) Water temperature 65°C / 55°C, air temperature 15°C - 100% of the max speed
(2) Sound power measured according to standards ISO 3741 - 100% of the max speed
(3) Referred to maximum speed

RATED TECHNICAL DATA - COOLING MODE

AREO i			33MDF	34MDF	43MDF	43TDC	63MDC	63MDF	63TDC	63TDF
Power supply		V-ph-Hz	230-1-50	230-1-50	230-1-50	400-3-50	230-1-50	230-1-50	400-3-50	400-3-50
Air flow rate max cooling		m^3/h	2601	2414	3848	4164	5746	4107	6173	4471
Heating capacity	(1)	kW	16,3	18,9	25,0	25,8	45,6	38,5	49,1	42,0
Water flow	(1)	l/h	1426	1653	2192	2261	3992	3367	4295	3675
Water pressure drop	(1)	kPa	4	7	8	9	8	6	9	7
Total cooling capacity	(2)	kW	5,83	9,65	12,2	13,4	21,1	19,4	25,9	23,9
Sensible cooling capacity	(2)	kW	4,63	6,66	8,32	9,14	13,7	12,7	17,1	15,7
Water flow	(2)	l/h	1016	1672	2120	2332	3661	3367	4509	4124
Water pressure drop	(2)	kPa	3	9	8	9	9	6	9	11
Sound power level	(3)	dB(A)	73	72	68	70	71	68	78	72
Power input	(4)	W	86	92	139	177	219	103	363	131

(1) Water temperature 65°C / 55°C, air temperature 15°C - max speed avaible in cooling mode
(2) Water temperature 7°C / 12°C, air temperature dry bulb 28°C, wet bulb 19°C (53% relative humidity) - max speed avaible in cooling mode
(3) Sound power measured according to standards ISO 3741 - max speed available in cooling mode
(4) Referred to max speed available in cooling mode