

## Fan heaters AREO i

Air conditioning fan heaters with EC motor

# AREO i 11 - 118 kW



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 EBM-PAPST GreenTech® 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 GreenTech® 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 18 models to be wall mounted. AREO i is ideal for both mode heating and cooling due to an innovative system for collecting condensate and additional insulation inside the cabinet.

The range includes 6 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)
- » Axial fan with blades with an aerodynamic profile (HyBlade® technology)
- » 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

**EVO-2-TOUCH** 2.8" touch screen user interface for EVO control

**EVOBOARD** Circuit board for EVO control

**EVODISP** User interface with display for EVO controller

**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 ERP2017 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
- maintenance-free ball bearings

**Axial fan**

With blades with an optimized aerodynamic profile (HyBlade® technology), statically balanced, inserted in a housing that enhances aeraulic performance and minimizes noise.


**Microprocessor controller (accessory)**

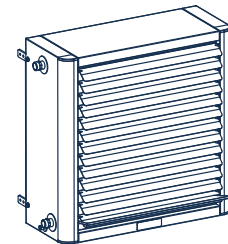
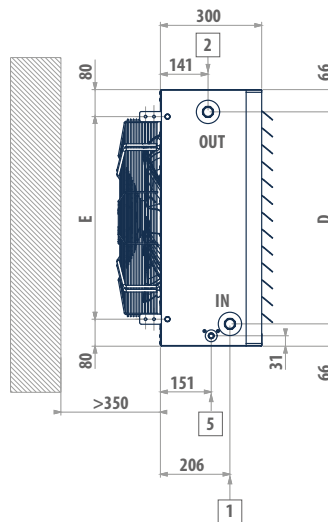
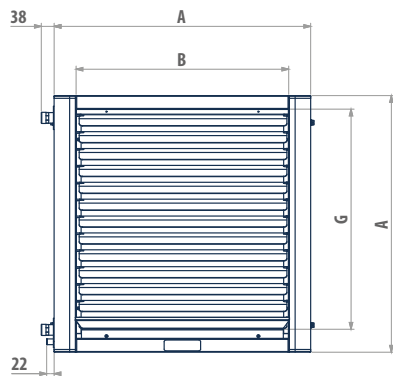
The advanced microprocessor control unit adjusts the fan speed of the brushless motor between 0 and 100%, so that in all partial load conditions the indoor unit will operate at a reduced speed with considerably reduced noise emissions and power consumption.


**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	B	D	E	G	1	2	kg
	mm	mm	mm	mm	mm	"	"	
<b>12 - 13 - 14</b>	460	330	328	300	380	3/4	3/4	19-19-20
<b>22 - 23 - 24</b>	560	430	428	400	480	3/4	3/4	25-26-27
<b>32 - 33 - 34</b>	660	530	528	500	580	1	1	33-34-36
<b>42 - 43 - 44</b>	760	630	628	600	680	1	1	39-41-42
<b>52 - 53 - 54</b>	860	730	728	700	780	1 1/4	1 1/4	50-53-54
<b>62 - 63 - 64</b>	960	830	828	800	880	1 1/4	1 1/4	58-61-63

# Fan heaters AREO i

## RATED TECHNICAL DATA - HEATING MODE

AREO i			12	13	14	22	23	24	32	33	34
Power supply		V-ph-Hz	230-1-50								
Air flow rate max heating		m <sup>3</sup> /h	1626	1375	1250	2700	2350	2300	3100	2850	2770
Heating capacity	(1)	kW	11,2	14,0	16,0	18,7	23,9	26,8	28,7	31,5	35,4
Water flow	(1)	l/h	988	1232	1416	1651	2111	2368	2535	2778	3129
Water pressure drop	(1)	kPa	37	27	21	21	26	17	13	12	19
Sound power level	(2)	dB(A)	68	69	70	71	69	69	64	64	64
Power input	(3)	W	80	79	81	139	132	146	105	108	108

AREO i			42	42	43	43	44	44	52	52	53
Power supply		V-ph-Hz	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50
Air flow rate max heating		m <sup>3</sup> /h	5800	8200	5400	7800	5350	7749	8800	9500	8450
Heating capacity	(1)	kW	48,5	59,0	53,9	67,0	61,0	76,6	58,2	60,7	73,2
Water flow	(1)	l/h	4279	5210	4756	5913	5386	6763	5138	5358	6457
Water pressure drop	(1)	kPa	31	44	30	44	20	30	24	25	27
Sound power level	(2)	dB(A)	71	81	72	81	72	82	80	80	82
Power input	(3)	W	318	844	334	840	344	850	715	859	766

AREO i			53	54	54	62	62	63	63	64	64
Power supply		V-ph-Hz	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50
Air flow rate max heating		m <sup>3</sup> /h	9150	8100	8850	7200	11200	6700	10500	6200	9750
Heating capacity	(1)	kW	76,6	80,6	85,0	77,0	100	88,2	118	87,8	118
Water flow	(1)	l/h	6764	7114	7503	6797	8861	7789	10393	7751	10446
Water pressure drop	(1)	kPa	29	29	32	18	28	24	39	23	39
Sound power level	(2)	dB(A)	80	82	81	69	78	70	79	71	79
Power input	(3)	W	876	776	875	248	845	259	864	266	875

- (1) Water temperature 85°C / 75°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) Measured at 100% of the max speed

**RATED TECHNICAL DATA - COOLING MODE**

AREO i		12	13	14	22	23	24	32	33	34
Power supply	V-ph-Hz	230-1-50								
Air flow rate max cooling	m <sup>3</sup> /h	865	936	899	1538	1616	1570	2409	2362	2412
Heating capacity	(1) kW	7,81	11,0	12,9	13,6	19,0	21,0	24,7	28,0	32,4
Water flow	(1) l/h	689	971	1136	1199	1673	1850	2179	2469	2856
Water pressure drop	(1) kPa	20	18	14	12	17	11	10	10	16
Total cooling capacity	(2) kW	2,25	3,17	3,71	3,49	5,50	5,80	5,59	7,06	9,78
Sensible cooling capacity	(2) kW	1,77	2,48	2,89	2,96	4,29	4,63	5,12	5,99	7,42
Water flow	(2) l/h	385	544	637	599	944	996	959	1213	1679
Water pressure drop	(2) kPa	10	9	7	5	9	5	3	4	9
Sound power level	(3) dB(A)	47	54	55	57	59	64	58	59	60
Power input	(4) W	36	44	45	25	46	63	47	57	68

AREO i		42	42	43	43	44	44	52	52	53
Power supply	V-ph-Hz	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50
Air flow rate max cooling	m <sup>3</sup> /h	3346	3399	3492	3278	3421	3282	4644	4536	4492
Heating capacity	(1) kW	35,0	35,3	41,2	39,5	45,7	44,5	40,5	40,0	50,0
Water flow	(1) l/h	3087	3115	3631	3489	4038	3927	3578	3529	4417
Water pressure drop	(1) kPa	18	18	19	18	12	11	12	12	14
Total cooling capacity	(2) kW	9,66	9,77	12,3	11,8	13,1	12,7	10,6	10,4	14,4
Sensible cooling capacity	(2) kW	7,80	7,88	9,43	9,03	10,2	9,93	8,89	8,74	11,3
Water flow	(2) l/h	1658	1675	2109	2020	2240	2172	1825	1790	2462
Water pressure drop	(2) kPa	8	8	10	9	6	6	5	5	7
Sound power level	(3) dB(A)	61	64	63	64	63	63	64	63	64
Power input	(4) W	91	69	118	73	120	76	97	92	105

AREO i		53	54	54	62	62	63	63	64	64
Power supply	V-ph-Hz	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50	230-1-50	400-3-50
Air flow rate max cooling	m <sup>3</sup> /h	4365	4706	4653	6011	5888	6005	5605	5861	5779
Heating capacity	(1) kW	49,1	57,5	57,1	68,8	67,9	82,1	78,3	84,5	83,7
Water flow	(1) l/h	4338	5076	5040	6075	5996	7241	6912	7458	7387
Water pressure drop	(1) kPa	13	16	16	14	14	21	19	22	21
Total cooling capacity	(2) kW	14,1	17,6	17,5	17,3	17,0	24,5	23,3	26,7	26,5
Sensible cooling capacity	(2) kW	11,1	13,3	13,2	14,8	14,6	18,8	17,9	19,8	19,6
Water flow	(2) l/h	2415	3025	2999	2963	2922	4212	3999	4586	4542
Water pressure drop	(2) kPa	7	9	9	6	6	11	10	13	12
Sound power level	(3) dB(A)	64	66	66	64	62	67	62	70	65
Power input	(4) W	96	141	134	157	150	195	152	232	205

(1) Water temperature 85°C / 75°C, air temperature 15°C - max speed available in cooling mode

(2) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) - max speed available in cooling mode

(3) Sound power measured according to standards ISO 3741 - max speed available in cooling mode

(4) Measured at max speed available in cooling mode

All data reported in the table above refer to maximum allowed ventilation speed in order to avoid the drag of the condensation drops generated in the heat exchanger.