



Polaris

Air Conditioner

TECHNICAL LEAFLET

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Polaris Sabiana circular unit heaters, for ceiling installation only, are especially suitable for high rooms, even if the optimum ratio between the air flow-rate and the heat / cool output make them suitable for any manufacturing environment.

The large coil and the fan downstream of the coil ensure optimum mixing of the air in the environment, meaning less stratification of the hot air than with traditional unit heaters.

When supplied with cold water they can also be used in the summer months, thus allowing cooling at very reasonable costs.

The Polaris unit heaters are made in 9 sizes, all fitted with very silent two speeds motors, heat outputs from 17 to 107 kW and cooling capacities from 2 to 20 kW.

TECHNICAL CHARACTERISTICS

- The **casing** is made of spun steel on both top and bottom sections which is designed to give greater strength and quieter operation. The casing is then finished with an epoxy, polyester powder coating of light grey, RAL 9002.
- The **circular coil** is constructed of copper tubes with aluminium fins.
- The **helicoidal fan** is statically and dynamically balanced, the rational high-capacity profile provides maximum air volume with a minimum power consumption.
- **Standard motors are three phase 400 V**, closed frame, flange mounted, pre-greased bearings, protection IP 55. Available with two speed Delta-Star motors at 6/8 pole.

On request:

- **Delta-Star switch** for two speed Delta-Star motors, 6/8 poles, with klixon thermic protection.
- **Manual three-position switch** with thermostat for two speed delta-star motors 6/8 poles, with klixon thermic protection.

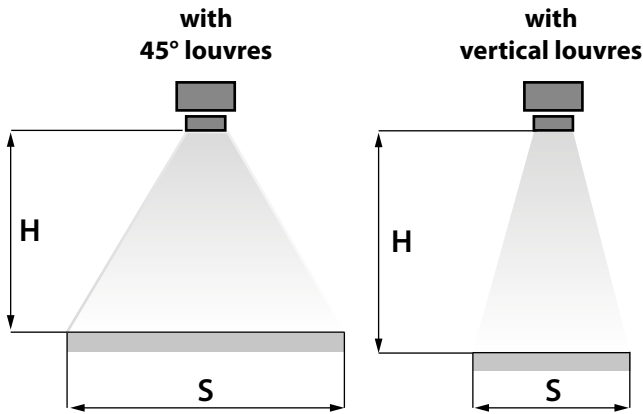




Made of eight separately adjustable large louvers, shaped so as to be able to cover the whole outlet area and therefore adaptable for minimum to maximum heights.

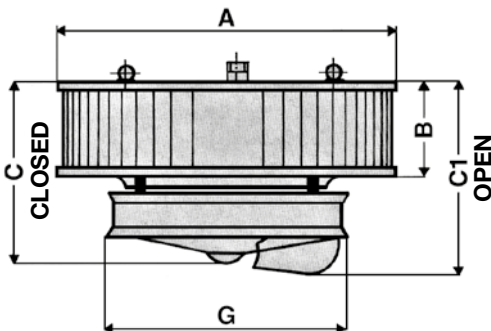
This diffuser allows the air to be directed more easily to the areas where it is required most, or conversely, if you do not require air to one particular corner you can close down one, two or three vanes and restrict the distribution.

Mounting heights and area of air distribution



Size	900 r.p.m. motor speed			
	45° louvres		Vertical louvres	
	H suggested m	S diameter m	H suggested m	S diameter m
0	2,5÷4	10,5÷16,5	3,5÷5	6÷9
1	3÷4,5	12÷18	4÷5,5	7,5÷10,5
3	3,5÷5,5	15÷22,5	5÷7	9÷13,5
4	3,5÷6	15÷24	5,5÷8	10,5÷15
5	4÷6,5	16,5÷25,5	5,5÷8,5	10,5÷15
6	4÷8	16,5÷28,5	6÷10	12÷18
7	4÷8	16,5÷28,5	6÷10	12÷18
8	5÷11	18÷31,5	6,5÷14	13,5÷19,5
9	5÷11	18÷33	6,5÷14	13,5÷21

Dimensions, weight, water content



Size	Dimensions						Weight kg	Water content litres
	A mm	B mm	C mm	C1 mm	G mm	Connections ø		
0	680	180	430	560	560	1 ¼"	31	1,2
1	780	180	430	560	560	1 ¼"	36	1,3
3	880	280	530	700	660	1 ½"	52	2,4
4	880	380	630	760	660	1 ½"	58	3,2
5	1080	380	630	870	760	2"	75	4,3
6	1080	455	705	945	760	2"	85	5,2
7	1080	555	805	1045	760	2"	95	5,9
8	1080	555	815	1055	760	2"	97	5,9
9	1080	605	865	1105	760	2"	106	6,5

Size	Model	Noise level at 5 m (*) dB(A)		Air flow m ³ /h	
		930 r.p.m.	800 r.p.m.	930 r.p.m.	800 r.p.m.
		0	P.007	48	46
1	P.107	52	49	2400	1680
3	P.311	55	52	4400	3080
4	P.415	56	53	5700	4000
5	P.515	63	58	7100	4970
6	P.618	64	59	9000	6300
7	P.722	65	60	9900	6930
8	P.822	65	60	11000	7700
9	P.924	66	61	12000	8400

Heating			
Water temperature 85/70 °C - Entering air temperature 15 °C			
W		Leaving air temp. °C	
930 r.p.m.	800 r.p.m.	930 r.p.m.	800 r.p.m.
17600	15100	41	47
20400	17400	40	46
35300	30000	38	44
46700	39600	39	44
57100	48500	39	44
72200	61400	38	44
85600	72700	40	46
99500	84500	43	48
106700	90700	42	47

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Cooling	
Relative humidity 55%	
Water temperature 11/15 °C - Entering air temperature 28 °C	
W	
930 r.p.m.	800 r.p.m.
3100	2700
4000	3500
7500	6600
10900	9500
13600	11900
17200	15000
18900	16500
22000	19000
23700	20600

(*) = The sound pressure levels dB(A) are measured at a distance of 5 m, directional factor Q = 2, compliant with the EN 3744 standard.



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