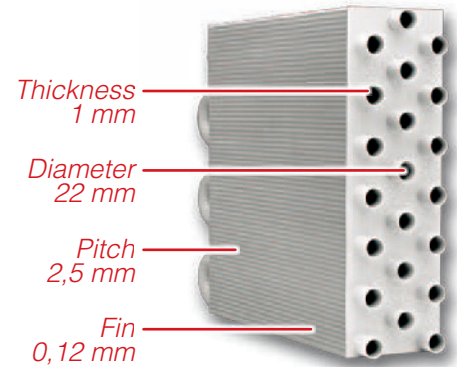




SABIANA
IL CLIMA AMICO

A leading brand of  **AFG**



Helios Unit Heater

The **HELIOS Sabiana** unit heaters, built with the same criteria of sturdiness and safety that define all Sabiana products, stand out for the splendid design of the casing, made using anodised aluminium bars and polished die-cast corners. They have the same big heart as the Atlas unit heaters: a coil that has been conceived, designed and manufactured specifically for heating industrial environments. The thickness of the pipes, standard in steel, the diameter (\varnothing 22 mm) and the excellent ratio between the flow-rate of air and the heat output guarantee long life and exceptional comfort.



Helios unit heaters are produced in **6 sizes** from **5 to 60 kW** and are available with a 1-row coil for steam and high temperature hot water installations, a 2-row coil for hot water installations and a 3-row coil for low temperature hot water installations.

The coil of Sabiana Helios unit heaters with steel tubes \varnothing 22 mm and aluminium fins has the following **advantages** compared with the copper-aluminium small diameter tube coils: the material used for the steel tube, which is very thick (1 mm instead of 0,3 - 0,4 mm), makes the Sabiana coil extremely sturdy and long lasting. The tube's big diameter reduces the water pressure drop: this means that reduced power pumps are installed and a very rapid heating capacity is provided. The Sabiana coil for unit heaters uses a reduced number of tubes to give the same yield: this determines a low resistance to the air flow and consequently an optimum leaving air temperature and a very high throw.

The greater spacing between the fins as well as their thickness facilitate cleaning and maintenance operations, which is essential to keep the unit heater efficient.

The steel tube coil is **the ideal choice for plants** where all tubes and equipment are made of steel because it avoids physical and chemical unbalance due to the interaction of different metals.



Helios Unit Heater

The special painting coat makes the coil long lasting and increases the thermal output. The Sabiana coil can be used with hot water, high temperature hot water or steam, even with a high working pressure. As a matter of fact each coil is submitted to two tests at 30 bars.

However Sabiana, in order to meet any design and installation need, can offer a complete set of unit heaters with copper tubes and aluminium fins. This coil has the same features (tube diameter, fin pitch, etc.) of the steel coil but it is built with copper tube 0,7 mm thick, of higher quality and with a total weight which is double compared with the coils normally used for unit heaters.

Upon request, all sizes are available with the **innovative electronic motors** with extremely low energy consumption, controlled by an inverter board and identified by ECM. The ECM motors allow to decrease electric consumption compared to traditional asynchronous motors and they enable to adjust the air flow continuously and control the ambient temperature

with precision, with further benefits in terms of very low noise levels.



Technical characteristics of the main components:

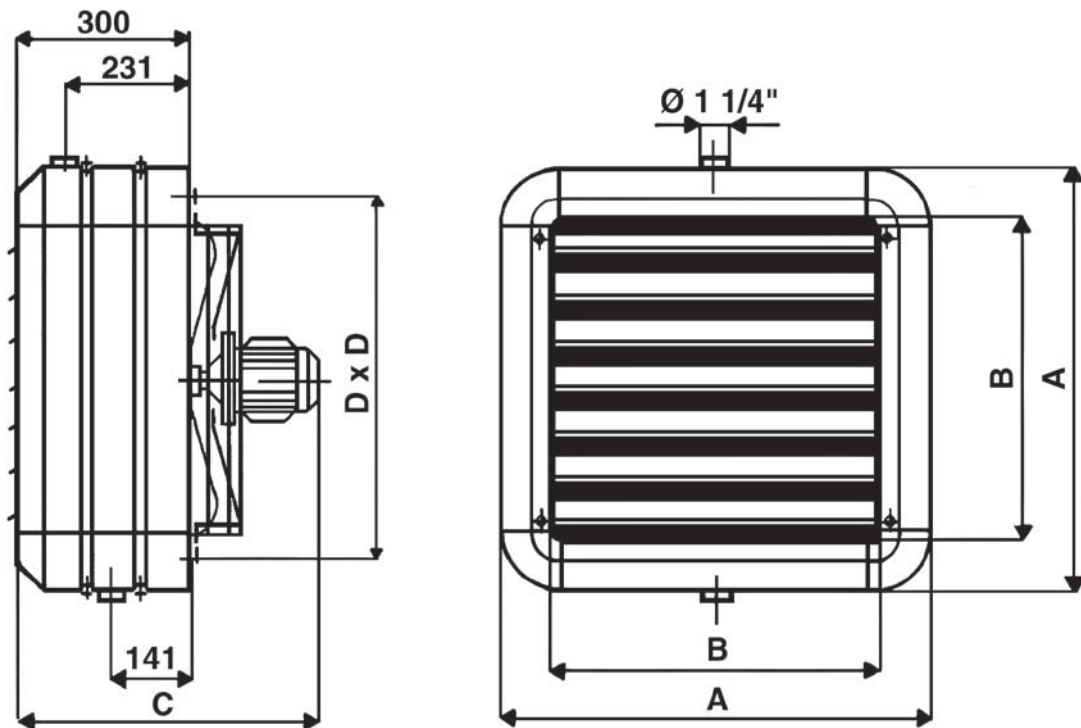
- The main casing is manufactured from 4 angular diecast aluminium components and lateral elements made of extruded, anodized aluminium in a silver colour.
- The coil is manufactured from the highest quality steel or copper tube. The fins are pressed from aluminium sheet and bonded onto the tubes facilitating the maximum transfer contact available.
- The fan and motor assembly consists of three components: the fan, the motor and the safety guard, which also acts as the main support. The standard motor is a hermetically sealed motor which is maintenance free. The motors are supplied as standard for a three phase 230/400V 50Hz supply, and they are available, according to the size, with 4/6 or 6/8 pole two speed (protection IP55) and with 4 or 6 pole one speed (protection IP44).

HELIOS identification code

Reference: 46H53 SX

46	H	5	3	SX
MOTOR 4/6 POLE (1350/1000 r.p.m.)	RANGE HELIOS	SIZE 5	ROWS 3	COIL STEEL TUBE
				SP
				COIL COPPER TUBE

Dimensions, Weight, Water content



SIZE	A	B	C	D
1	486	330	477	406
2	540	384	477	460
3	594	438	477	514
4	648	492	500	568
5	702	546	500	622
6	756	600	525	676

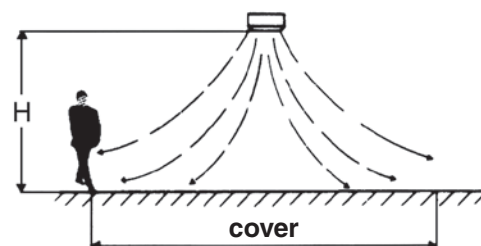
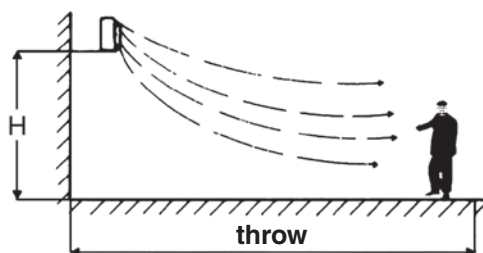
WEIGHT Kg			WATER CONTENT Liters		
1R	2R	3R	1R	2R	3R
19	22	24	1,3	2,6	3,9
22	25	27	1,6	3,2	4,8
26	30	33	1,9	3,8	5,7
30	34	38	2,3	4,6	6,9
33	40	44	3,0	6,0	9,0
38	46	51	3,5	7,0	10,5

HELIOS TECHNICAL SPECIFICATIONS

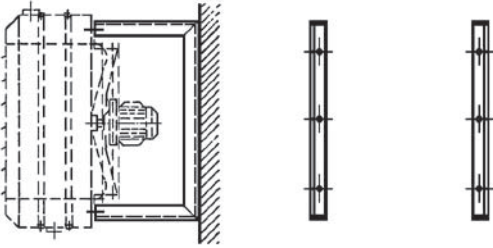
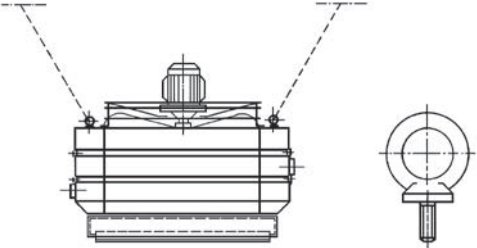
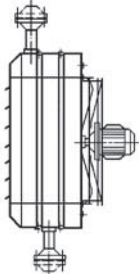
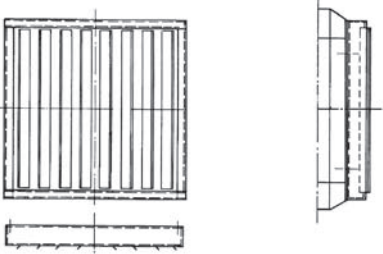
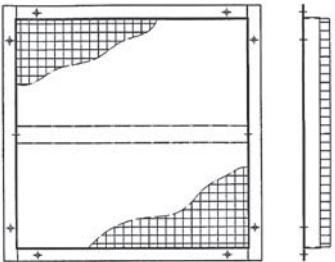
WATER TEMPERATURE 85-75°C
Drop 10°C - Δtm 65°C - Entering air temperature 15°C

SIZE	MODEL REF.	MOTOR SPEED r.p.m.	LEAVING AIR VOLUME m³/h	NOISE LEVEL AT 5 m. dB(A)	EMISSION W	LEAVING AIR TEMP. °C	POLES	MOUNTING HEIGHTS:			
								HORIZONTAL DISCHARGE		VERTICAL DISCHARGE	
								HEIGHT m	THROW m	HEIGHT max m	COVER m²
1	46H11	1350 / 1000	1490 / 1055	56 / 48	-	-	4	2,5÷3,5	8	4	50
	46H12	1350 / 1000	1400 / 1010	56 / 48	11170 / 8500	38 / 41	6	2,5÷3	5,5	3	36
	46H13	1350 / 1000	1330 / 960	56 / 48	12940 / 9790	44 / 48	6	2,5÷3	5,5	3	36
2	46H21	1350 / 1000	2315 / 1640	59 / 51	-	-	4	3÷4	11	4,5	60
	46H22	1350 / 1000	2100 / 1440	59 / 51	15600 / 11880	38 / 41	6	2,5÷3,5	7,5	3,5	45
	46H23	1350 / 1000	2010 / 1380	59 / 51	17700 / 13390	42 / 46	6	2,5÷3,5	7,5	3,5	45
3	46H31	1350 / 1000	3400 / 2215	61 / 52	-	-	4	3÷4	14	5	70
	46H32	1350 / 1000	2960 / 1995	61 / 52	23850 / 17940	38 / 42	6	2,5÷3,5	10	4	50
	46H33	1350 / 1000	2750 / 1850	61 / 52	27700 / 20710	43 / 47	6	2,5÷3,5	10	4	50
4	46H41	1350 / 1000	4230 / 2845	64 / 54	-	-	4	3,5÷4,5	16	5,5	80
	46H42	1350 / 1000	3525 / 2350	64 / 54	30840 / 23290	40 / 42	6	3÷4	12	4,5	60
	46H43	1350 / 1000	3120 / 2080	64 / 54	35260 / 26630	45 / 48	6	3÷4	12	4,5	60
5	46H51	1350 / 1000	5600 / 3630	66 / 56	-	-	4	4÷5	20	6	100
	46H52	1350 / 1000	5280 / 3470	66 / 56	40600 / 30910	39 / 43	6	3,5÷4,5	15	5	75
	46H53	1350 / 1000	4550 / 2990	66 / 56	46310 / 35250	43 / 48	6	3,5÷4,5	15	5	75
6	46H61	1350 / 1000	6920 / 4700	69 / 60	-	-	4	4÷5,5	25	7	130
	46H62	1350 / 1000	6450 / 4225	69 / 60	51780 / 40390	38 / 43	6	4÷5	18	6	110
	46H63	1350 / 1000	5570 / 3720	69 / 60	59380 / 46430	43 / 48	6	4÷5	18	6	110

Mounting heights



Accessories

HMP	Wall bracket.	
HS	Suspension plate for ceiling installation.	
HF	Flanged connections PN16 UNI 2282.	
AD	4 way diffuser. To be used when discharging downflow to create a 4 way discharge pattern. For normal heights of installation.	
HPP	Ball protection grid.	

Controls and Special motors

- Two speed Delta-Star motors, 4/6 or 6/8 poles, three phase, IP 55, with klixon thermic protection

Delta-Star switch
for two speed Delta-Star motors, 4/6 or 6/8 poles.



Manual two-position switch
for two speed Delta-Star motors, 4/6 or 6/8 poles.

BS 2S without thermostat
BS 2-ST with thermostat



Multi-function automatic control panel
for two speed Delta-Star motors, 4/6 or 6/8 poles.

BSA-B without timer
BSA-A with manual daily timer
BSA-D with digital weekly timer



- IP 55 motor protection

- Capacitor for single phase motor (not mounted)

The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.



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