

The Helios heater range includes product solutions for portable and fixed installation to match many heating and ventilation applications. The use of STH/TH and SH heaters is almost unrestricted and even permitted in humid and wet rooms.

The advantages of the electric heaters

- Favourable in price.
- Economic operation.
- Easy installation.
- Instantly ready to run.
- Very efficient.

- Odourless and emission-free.
- No connection to a chimney is necessary.

Operating conditions

1. Transitional or additional heating in rooms of every kind e.g. in workshops, stores, offices.
2. Full heating for large rooms which are only used periodically e.g. in assembly rooms, churches, gyms, exhibition halls and others.
3. Site heating for room heating as well as space drying.
4. Frost protection heating to prevent freezing temperatures in frost sensitive rooms e.g. stores, water utility companies, pump and slide gate valve stations.
5. Drying and condensation prevention of rooms of every kind in commercial and industrial applications.

Desired temperature increase	Required heat power kW					
	3 kW		5 kW		10 kW	
	Room vol. m ³	Room vol. m ³	Room vol. m ³	Room vol. m ³	Room vol. m ³	Room vol. m ³
40 °C	75*- 100	125*- 175	250*- 350	375*- 500	575*- 800	850*- 1200
35 °C	90*- 120	150*- 200	300*- 400	450*- 600	690*- 900	1000*- 1300
30 °C	100*- 150	175*- 250	350*- 500	500*- 750	800*- 1150	1200*- 1700
25 °C	120*- 180	200*- 300	400*- 600	600*- 900	920*- 1380	1550*- 2000
20 °C	150*- 210	250*- 350	500*- 700	750*- 1050	1150*- 1600	1750*- 2400
15 °C	200*- 280	340*- 470	680*- 940	1000*- 1400	1550*- 2150	2300*- 3200
10 °C	300*- 420	500*- 700	1000*- 1400	1500*- 2100	2300*- 3200	3500*- 4800
5 °C	600*- 800	1000*- 1400	2000*- 2800	3000*- 4200	4600*- 6400	6900*- 9600

* The figures with * are valid for poor room insulation. Approximately double the heating power is required for fast heating on occasional operation thus the warm up time is reduced.

Calculation of heat requirement and selection

Accompanying table is based on experiences for the room heating. The required heating power is dependent on:

1. Desired room temperature or difference to outside temperature.
2. Room size in m³.
3. Quality of room or building insulation.
4. Use of the unit as full or additional heating.

Example: Main heating

Room volume: 600 m³.
Desired temperature: +20 °C.
Lowest outside temperature: -15 °C.
Insulation: good.
This results in a temperature increase of 35 °C (see 1. column).
Depending on the room volume and the insulation the result is the required heating power of 15 kW.



Electric fan heaters from Helios.
High class in design and quality.

STH / TH – Transportable and stationary operation



The compact, powerful STH fan heaters are robust and well equipped.

They can operate to heat and dry for stationary and transportable use on the building site, in production plants, stores, workshops, offices, garages, churches, meeting rooms and others.

- Model range with heating power of 3.3 kW: 1 ph., 230 V as well as 5, 9, 15, 22 kW: 3 ph., 400 V.
- Easy handling with compact dimensions.
- Attractive design.
- Easy to lift, transport and hang up through ergonomically designed transportation frame.

■ High quality

- Suitable for operation under roughest conditions even in wet areas as well as for permanent operation.
- Corrosion resistant casing, made from galvanised steel, white powder coated.
- Red powder coated tripod, protecting all sides. Models STH with holes for wall installation.
- Stable front protection grille, powder coated in grey.
- Clearly arranged control board, protected against damage through recessed position.
- Maintenance free and radio suppressed.
- All models with protection to IP 44. Suitable for operation in wet areas.
- Contact safety to DIN EN ISO 13857.
- Enclosed heater element made from high-grade stainless steel with low surface temperature.
- Heater is accessible, from outside overheat protection. (STH 3 – self resetting after cooling down).

■ Individual timer

All models from 9 kW on have a digital timer for preprogrammed operation up to 24 hours to given room temperature as standard.

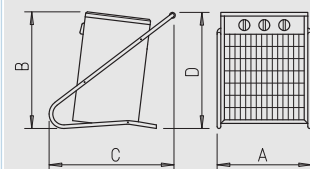
■ Control

- Via built-in operation switch with following functions.
- Optional fan operation without heating, from 9 kW on two fan speeds available.
- Heating element for models with 3, 5, 15 kW in two steps; models with 9 and 22 kW in three steps.
- Heating operation through built-in room temperature thermostat, adjustable from +5 °C to +35 °. Fan keeps operating for a better heat distribution when heating is switched off.

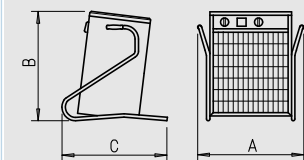
Dimensions mm

Type	A	B	C	D
STH 3 / STH 5	290	390	475	440
STH 9 T	335	425	450	435
STH 15 T	430	535	550	560
TH 22 T	570	615	535	

STH..



TH..

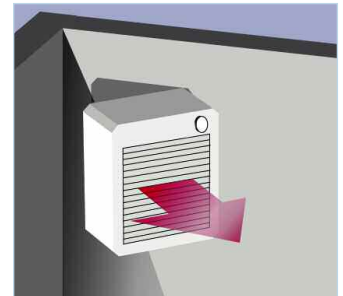
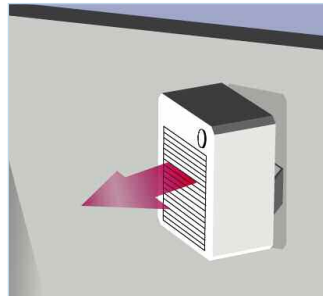
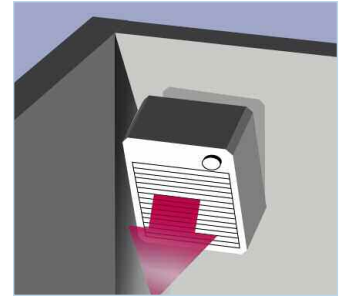
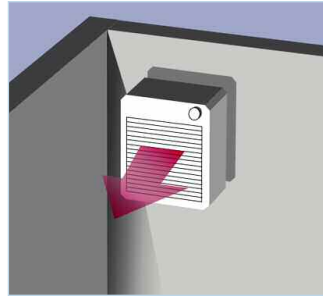


Dimensions in mm

Technical data

Type	STH 3	STH 5	STH 9 T	STH 15 T	TH 22 T
Ref. No.	2520	2521	2522	2523	2524
Heat power kW	3.3	5.0	9.0	15.0	22
Controllable heat power kW	0 - 1.6 - 3.3	0 - 2.5 - 5	0 - 3 - 6 - 9	0 - 7.5 - 15	0 - 7 - 15 - 22
Max. temperature increase K	25	37	38	35	27
Max. surrounding temperature °C	40	40	40	40	40
Air flow volume m³/h	400	400	400 / 700	800 / 1300	1800 / 2400
R.P.M. min ⁻¹	1300	1300	900 / 1300	900 / 1300	850 / 1180
Sound press. in dB(A) at 4 m (free field.)	40	40	43	58	65
Voltage, 50 Hz	230 V / 1 ph.	400 V / 3 ph.	400 V / 3 ph.	400 V / 3 ph.	400 V / 3 ph.
Current Amps	14.5	7.5	13.5	21.7	31.5
Regular 3 pin ¹⁾ / CEE ²⁾ socket required	1)	16 A	16 A	32 A	32 A
Weight in kg	8.0	8.0	12.0	18.0	24.0
Digital timer (24 h preprogramming)	—	—	yes	yes	yes

¹⁾ with approx. 1.5 m long lead and plug



- The SH models can be used everywhere: in garages, warehouses, gyms, entrance halls, production plants, stores, workshops, churches, meeting rooms as well as wet rooms. Model range with heating power of 6, 9, 12 or 15 kW.

■ **Significant features**

- Special designed impeller ensures quiet operation.
- Corrosion resistant casing, made from galvanised steel, white powder coated.
- Stable front protection grille, powder coated in grey.
- Maintenance free and radio suppressed.
- Service friendly: All elements are easily accessible by removing a few screws.
- Enclosed heater element made from high-grade stainless steel with low surface temperature.

■ **Specification**

- Easy setting of air flow volume required for the room conditions via 3 fan speeds.
- Single step capillary tube thermostat (setting range +5 to +40 °C) controls via temperature sensor. The heat output is the amount required to raise the temperature from the incoming to the desired value.
- Operation switch to control fan speed and heat power as standard for surface installation.

■ **Installation**

SH is to be fixed individually on the wall. The air flow can be directed alternatively to the front, diagonally to the left, right or downward through the assembly-friendly suspension device fixed to the unit.

■ **Operation switch**

delivered as standard – with the functions: On, Off, 3 fan speeds, 100% and 50% heating power.

■ **High operation safety**

- Thermal overheat protection with manual reset.
- Enclosed heater element with low surface temperature.
- All models with protection to IP 44. Suitable for operation in wet areas.
- Fan motor with thermal overload protection.
- Protection against contact to DIN EN ISO 13857.



Technical data				
Type	SH 6	SH 9	SH 12	SH 15
Ref. No.	5225	5226	5227	5228
Heat power kW	6	9	12	15
Controllable heat power kW	0 – 3 – 6	0 – 4.5 – 9	0 – 6 – 12	0 – 7.5 – 15
Temperature increase K				
– at maximum speed (step 3)	7 – 14	11 – 21	11 – 22	13 – 26
– at medium speed (step 2)	10 – 20	15 – 30	12 – 24	15 – 30
– at low speed (step 1)	14 – 29	22 – 44	15 – 30	11 – 37
Air flow volume m ³ /h				
– Speed step 3	1300	1300	1700	1700
– Speed step 2	900	900	1550	1550
– Speed step 1	630	630	1220	1220
Sound press. in dB(A) at 4 m (free field.)				
– at high speed	46	46	51	51
– at low speed	32	32	44	44
Voltage, 50 Hz	400 V / 3 ph.	400 V / 3 ph.	400 V / 3 ph.	400 V / 3 ph.
Current Amps	9	14	18	22
Required supply mm ²	4 x 2.5	4 x 2.5	4 x 6.0	4 x 6.0
CEE socket required	16 A	16 A	32 A	32 A
Control lead	6 x 0.75	6 x 0.75	6 x 0.75	6 x 0.75
Wiring diagram No.	858	858	858	858
Weight in kg	19	19	26	26

Dimensions in mm				
Type	A	B	C	D
SH 6	400	490	310	460
SH 9	400	490	310	460
SH 12	450	560	415	585
SH 15	450	560	415	585

