

Heaters, sk

Enclosure heaters protect your equipment from condensation and corrosion. Rittal heaters are designed to produce the necessary heat, while maintaining their compact and robust black anodised aluminium construction.

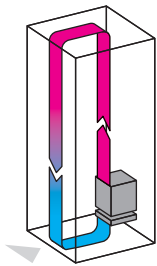
This series is made up of seven different capacity heaters, with thermal outputs ranging from 10 to 800 watts. Surface temperature and power consumption are minimised through the use of thermistors (PTCs), which regulate the thermal output according to the enclosure internal temperature.

Supply includes:

PTC heater with quick-fit terminal and assembly parts.

Note:

- Thermostat SK 3110000 (see below) is recommended for precise temperature control in the enclosure.
- In order to prevent condensation on assemblies, hygrostat SK 3118000 (see below) is recommended to regulate heating.
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.
- The installation of heaters is generally advisable, even when using heat exchangers and cooling units, in order to prevent condensation.



Heater Sizing

In order to install the appropriate capacity heater, the required thermal output can be calculated as:



Example:

Calculate the enclosure surface area in m ²	A	4
Select the minimum internal temperature that you wish to maintain in the enclosure in °C	Ti	15
Select the minimum ambient temperature of the enclosure surrounds in °C	Tu	5
Calculate the temperature difference $T_i - T_u = \Delta T$	ΔT	10
Heat transfer coefficient of steel $k = 5.5 \text{ W/m}^2\text{K}$	K	5.5
Thermal output calculated as: $Q_H = A \times \Delta T \times k$	Q_H	220W

Without fan, continuous thermal output 10 -150 W

Model no. SK	Dimensions (mm)			Operating Voltage (50/60Hz)	Continuous Thermal Output (W @ T _u =10°C)	Pre-fuse T
	W	H	D			
3105310	45	120	46	110-240V AC/DC	8 - 10	2 A
3105320	45	120	46	110-240V AC/DC	18 - 20	2 A
3105330	64	155	56	110-240V AC/DC	23 - 30	4 A
3105340	64	155	56	110-240V AC/DC	49 - 50	4 A
3105350	64	230	56	110-240V AC/DC	63 - 75	4 A
3105360	90	165	75	110-240V AC/DC	86 - 100	4 A
3105370	90	180	75	110-240V AC/DC	130 - 150	4 A

Features

Easily installed using supplied screw and fastening bracket (35mm DIN Rail)



Accessories

Thermostat
Part No: 3110000

With fan, continuous thermal output 250 -800 W

Model no. SK	Dimensions (mm)			Operating Voltage (50/60Hz)	Continuous Thermal Output (W @ T _u =10°C)	Pre-fuse T
	W	H	D			
3105210	142	170	101	110 AC/DC	250	4 A
3105220	142	170	101	110 AC/DC	400	6 A
3105230	142	170	101	110 AC/DC	800	10 A
3105180	142	170	101	230V AC/DC	250	4 A
3105190	142	170	101	230V AC/DC	400	6 A
3105200	142	170	101	230V AC/DC	800	6 A



Hygrostat - prevent condensation
Part No: 3118000