



SSM Silicone heater plate for control cabinets

Features

- Space saving thanks to its flat structure
- Good and uniform heat distribution thanks to the uniplanar structure
- Random mounting position
- Excellent resistance to chemicals

Description

The SSM heater plate can be used for frost protection and as an anti-condensation heater. Its application ensures complete operational safety as the plates prevent malfunctions often due to leakage currents on electrical installations or the corrosion of metal components. Typical applications are switchgear and controlgear cabinets, instrument housings, analyser cases, glove boxes and other enclosures.

Structure

The heater plate consists of a thin, anodised aluminium baseplate, vulcanised with silicone-impregnated glass-fibre mats with an embedded heating coil. A bimetallic switch integrated in the terminal block limits the surface temperature of the heater approx. +70 °C. An alternative version is available for adjusting the surface temperature from +30 °C up to +150 °C.

Additional products

Thanks to the unusual structure of silicone heaters, it is possible to manufacture different versions for every application.

The following **parameters** can be altered for individual applications:

Geometry/Shape

Flexible large-area heaters up to a size of 2.5 m x 1.2 m and about 2.5 mm thick can be achieved. Cutouts, threads etc. can be provided at random. Heaters for cylindrical bodies (5 to 200 mm diameters) are preformed according to the required radius as a sleeve.

Fixing method

Large-area heaters can be installed with self-adhesive tape, with a special glue, by means of a clamping plate or tension springs.

Nominal voltage

6 V to 230 V; 3 N AC 100 V to 3 N AC 400 V are possible.

Power density

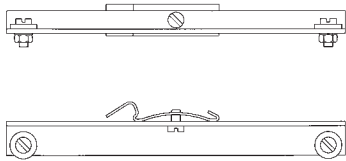
approx. 0.65 W/cm² for self-stabilisation; up to 2.0 W/cm² if limited by a thermostat.

Temperature control

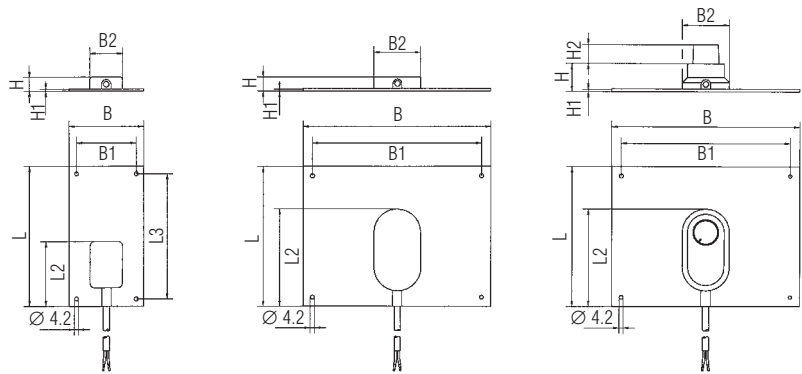
The surface temperature of the heater is influenced by the particular power density W/cm², temperature sensors for the control and limitation can be directly integrated in the heating system, sensor receptacles for external temperature sensors can be provided on the heater surface. The direct contact and large area format result in a very favourable heat flow in the desired direction. This means lower temperature differences between heater and object (medium).

Dimensions

Snap-on rail mounting TS 35



Dimensions Silicone heater



Technical data

VDE certificate

License no. 101109

Norms

EN 60335-1

Min. ambient temperature

-60 °C

Max. ambient temperature

+80 °C (at Type 27-0222)

Plate temperature

+70 °C (pre-set value)
adjustable from +30 °C up to +150 °C

Fixing details

- with 4 x M4 screws
- with a special glue
- with mounting rails

Materials

- baseplate aluminium sheet, anodised 1.0 or 1.5 mm thick
- Insulation silicone rubber approx. 1.5 mm thick
- heating element CrNi or constantan wire
- supply cable of silicone 2 x 0.75 mm², 0.5 m long

Protection class

- Type 27-0212-.. IP 53
- Type 27-0222-.. IP 51

Electrical data

Heat output

40 W/100 W/250 W

Nominal voltage

AC 230 V/50 Hz

Di-electric strength

up to 12 KV/mm

Dimensions in mm

| L | L1 | L2 | B | B1 | B2 | H | H1 | H2 | Order no. |
|-----|-----|-----|-----|-----|----|----|-----|---------|---------------------|
| 150 | 134 | 70 | 80 | 64 | 35 | 15 | 2.5 | without | 27-0212-1704 |
| 150 | 130 | 105 | 200 | 180 | 50 | 15 | 3 | without | 27-0212-2710 |
| 150 | 130 | 105 | 200 | 180 | 50 | 30 | 3 | 20 | 27-0222-2710 |
| 300 | 280 | 105 | 200 | 180 | 50 | 15 | 3 | without | 27-0212-3725 |
| 300 | 280 | 105 | 200 | 180 | 50 | 30 | 3 | 20 | 27-0222-3725 |

Selection chart for accessories - Fixing bracket for TS 35

| Installation sizes L x B | Order no. |
|--------------------------------------|---------------------|
| for heater 150 x 80 mm, 150 x 200 mm | 05-0010-0056 |
| for heater 300 x 200 mm | 05-0010-0057 |

Selection chart for heater plate

| Heat output | +70 °C pre-set | adjustable from +30 °C to +150 °C |
|-------------|---------------------|-----------------------------------|
| | Order no. | Order no. |
| 40 Watt | 27-0212-1704 | - |
| 100 Watt | 27-0212-2710 | 27-0222-2710 |
| 250 Watt | 27-0212-3725 | 27-0222-3725 |