

COMPACT SEMICONDUCTOR FAN HEATER

CSF 028 | 250 W, 400 W



CSF 028 with clip fixing



CSF 028 with screw flange fixing

- > Small, compact design
- > Integrated pre-set thermostat
- > Dynamic heating up
- > Touch-safe
- > Quick connection
- > Clip or screw flange fixing

The compact fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The touch-safe plastic housing and the small dimensions makes it ideal for use in enclosures with high packing density. The CSF 028 is equipped with a preset thermostat. It is connected via external clamps. The fan heater is available with two different mounting systems - either mounting by screw flange or by clip. The robust screw flange fixing is particularly suitable for applications with high vibration.



TECHNICAL DATA

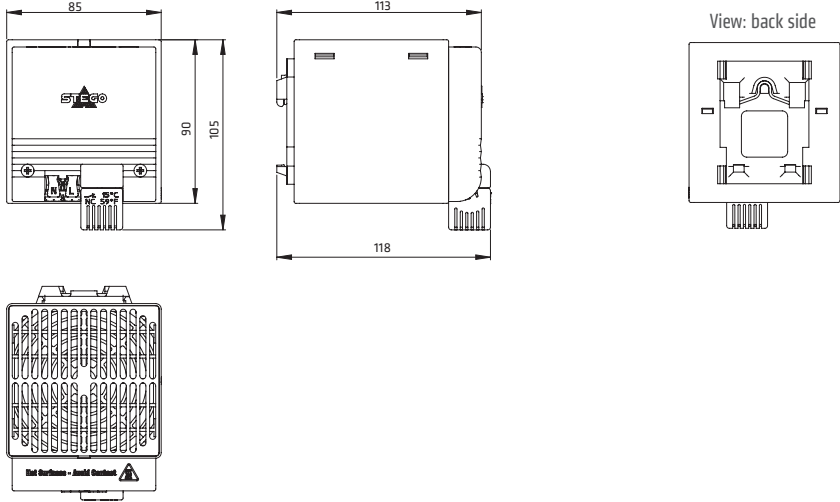
| | |
|----------------------------------|--|
| Heating element | PTC resistor - temperature limiting |
| Surface temperature | 250W: max. +50°C (+122°F), 400W: max. +65°C (+149°F) each except upper protective grille at +20°C (+68°F) ambient temperature |
| Temperature safety cut-out | to protect against overheating in case of fan failure, automatic reset |
| Axial fan, ball bearing | air flow, free flow CSF 028: 45m ³ /h (230VAC), 54m ³ /h (120VAC) service life 40,000h at +40°C (+104°F) |
| Connection | 2-pole dual pressure clamp for rigid wire 2.5mm ² , stranded wire (with wire end ferrule) 1.5 mm ² |
| Casing | plastic according to UL94 V-0, black |
| Mounting | clip for 35mm DIN rail, EN 60715 or screw fixing (Ø 5.5mm), lamping torque 2Nm max., washers have to be used |
| Fitting position | vertical airflow (air outlet up), horizontal airflow |
| Dimensions | models with clip fixing: 105 x 85 x 118mm, models with screw flange fixing: 105 x 115 x 108mm |
| Weight | 0.5kg |
| Operating/Storage temperature | -40 to +70°C (-40 to +158°F)/-45 to +70°C (-49 to +158°F) |
| Operating/Storage humidity | max. 90% RH (non-condensing) |
| Protection type/Protection class | IP20 / II (double insulated) |
| Approvals | intended: UL, VDE, GOST TR |
| Note | other voltages on request |

| Art. No. clip fixing | Art. No. screw flange fixing | Operating voltage | Heating capacity ¹ | Inrush current max. | Pre-fuse T (time-delay) | Switch-off temperature ² | Switch-on temperature ² |
|----------------------|------------------------------|-------------------|-------------------------------|---------------------|-------------------------|-------------------------------------|------------------------------------|
| 02821.0-06 | 02821.0-08 | 230VAC, 50/60Hz | 250W | 9A | 10A | +15°C (+59°F) | +5°C (+41°F) |
| 02821.0-09 | 02821.0-11 | 230VAC, 50/60Hz | 250W | 9A | 10A | +25°C (+77°F) | +15°C (+59°F) |
| 02820.0-06 | 02820.0-08 | 230VAC, 50/60Hz | 400W | 15A | 16A | +15°C (+59°F) | +5°C (+41°F) |
| 02820.0-09 | 02820.0-11 | 230VAC, 50/60Hz | 400W | 15A | 16A | +25°C (+77°F) | +15°C (+59°F) |
| 02821.9-06 | 02821.9-08 | 120VAC, 50/60Hz | 250W | 6A | 10A | +15°C (+59°F) | +5°C (+41°F) |
| 02821.9-09 | 02821.9-11 | 120VAC, 50/60Hz | 250W | 6A | 10A | +25°C (+77°F) | +15°C (+59°F) |
| 02820.9-06 | 02820.9-08 | 120VAC, 50/60Hz | 400W | 9A | 10A | +15°C (+59°F) | +5°C (+41°F) |
| 02820.9-09 | 02820.9-11 | 120VAC, 50/60Hz | 400W | 9A | 10A | +25°C (+77°F) | +15°C (+59°F) |

¹ at +20°C (+68°F) ambient temperature; ² tolerance of ±5K

TECHNICAL DRAWINGS

CLIP FIXING



SCREW FLANGE FIXING

