

# TOUCH-SAFE HEATER (SEMICONDUCTOR)

## CSF 060 | 50 W to 150 W



- > Low surface temperature
- > Integrated thermostat
- > Quick mounting due to clip fixing
- > Double insulated (plastic)
- > Wide voltage range
- > Small size

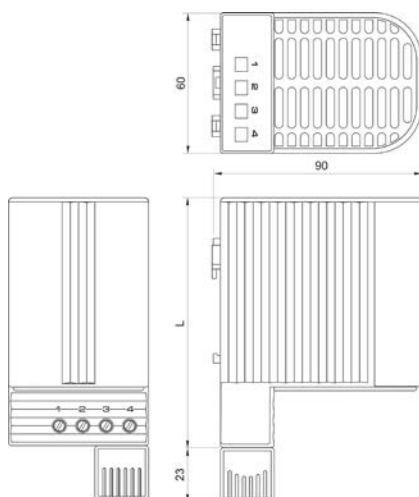
Touch-safe heater for the use in enclosures with electrical/electronic components. The design of the heater supports the natural convection which results in a high air-current of warm air. The surface temperatures on the accessible side surfaces of the housing are kept down as a result of the heater design. This model with plug-in thermostat does not require additional wiring. The heaters are designed for permanent operation. This heater is also available in a version without thermostat (CS 060).



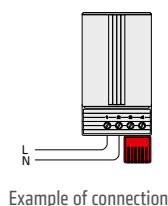
### TECHNICAL DATA

Operating voltage	AC 120 – 240 V <sup>1</sup> (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	2-pole terminal 2.5 mm <sup>2</sup> , torque 0.8 Nm max.
Casing	plastic according to UL94 V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
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	VDE, UL File No. E150057, EAC

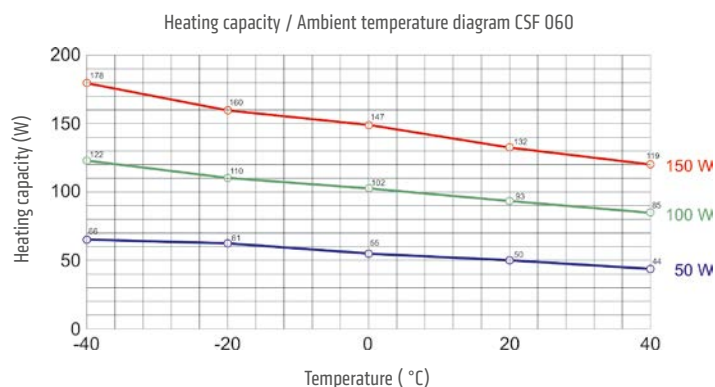
<sup>1</sup> Operating with voltages below AC 140 V reduces heating performance by approx. 10 %.



Heater CSF 060



Example of connection



Art. No.	Heating capacity <sup>2</sup>	Inrush current (max.)	Recommended pre-fuse T (time-delay)	Air outlet temperature <sup>3</sup>	Switch-off temperature <sup>4</sup>	Switch-on temperature <sup>4</sup>	Dimensions	Weight (approx.)
06001.0-00	50 W	2.5 A	4.0 A	+86 °C (+186.8 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	110 x 60 x 90 mm	0.3 kg
06002.0-00	50 W	2.5 A	4.0 A	+86 °C (+186.8 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	110 x 60 x 90 mm	0.3 kg
06011.0-00	100 W	4.5 A	8.0 A	+120 °C (+248 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	110 x 60 x 90 mm	0.3 kg
06012.0-00	100 W	4.5 A	8.0 A	+120 °C (+248 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	110 x 60 x 90 mm	0.3 kg
06021.0-00	150 W	8.0 A	10.0 A	+145 °C (+293 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	150 x 60 x 90 mm	0.5 kg
06022.0-00	150 W	8.0 A	10.0 A	+145 °C (+293 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	150 x 60 x 90 mm	0.5 kg

<sup>2</sup> ambient temperature – see Heating capacity / ambient temperature diagram; <sup>3</sup> measured 50 mm above protective grille; <sup>4</sup> tolerance of ±5 K

**Note:** Other switch-off and switch-on temperatures on request.



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