

## CS 028 / CSL 028 Series



Photo: Fan Heater CSL 028

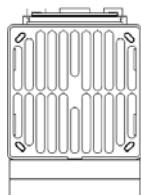
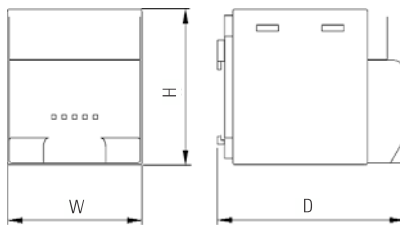
- **Small, compact design**
- **Quiet in operation**
- **Dynamic heating up**
- **Clip or screw fixing**

Fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The heater is connected using the internal terminal connectors. The small size of the CS 028 / CSL 028 makes it ideal for use in enclosures where space is at a premium.



### Technical Data

<b>Heating element</b>	PTC resistor - temperature limiting
<b>Surface temperature</b>	150W/250W: max. 50°C (122°F), except upper protective grille 400W: max. 65°C (149°F), except upper protective grille at 20°C (68°F) ambient temperature
<b>Axial fan, ball bearing</b>	air flow, free flow: CS 028: 13.8m³/h CSL 028: 45m³/h (230VAC), 54m³/h (120VAC) service life 40,000h at 40°C (104°F)
<b>Connection</b>	2-pole clamp max. 2.5mm² (CSL 028 with strain relief), clamping screw torque 0.8Nm max.
<b>Casing</b>	plastic according to UL94-0, black
<b>Mounting</b>	clip for 35 mm DIN rail, EN 60715 or screw fixing (Ø 5.3mm)
<b>Fitting position</b>	vertical airflow (air outlet up)
<b>Operating / Storage temperature</b>	-45 to +70°C (-49 to +158°F)
<b>Operating / Storage humidity</b>	max. 90% RH (non-condensing)
<b>Protection type / Protection class</b>	IP20 / II (double insulated)
<b>Approvals</b>	UL File No. E150057 (according to UL 499, intended for the use within an enclosure in accordance with UL 508A) 230V versions: VDE
<b>Note</b>	other voltages on request

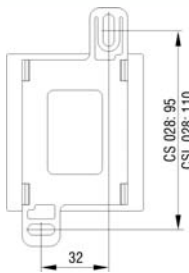


Screw fixing

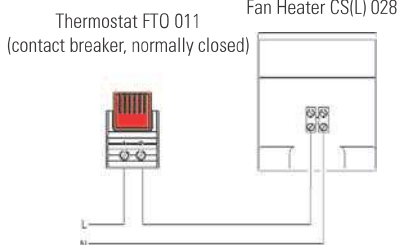
View: back side



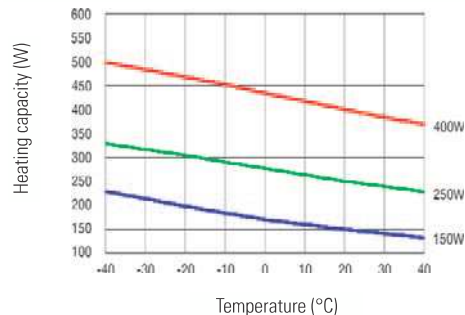
Clip fixing



Example of connection



Heating capacity / Ambient temperature diagram  
CS 028 / CSL 028



Art. No. Clip fixing	Art. No. Screw fixing	Series	Operating voltage	Heating capacity*	Inrush current max.	Pre-fuse T (time-delay)	Dimensions	Weight approx.
02800.0-00	02800.0-01	CS 028	230VAC, 50/60Hz	150W	12A	6.3A	75 x 65 x 90mm	0.3kg
02811.0-00	02811.0-01	CSL 028	230VAC, 50/60Hz	250W	9A	6.3A	90 x 85 x 111mm	0.5kg
02810.0-00	02810.0-01	CSL 028	230VAC, 50/60Hz	400W	15A	10A	90 x 85 x 111mm	0.5kg
02800.9-00	02800.9-01	CS 028	120VAC, 50/60Hz	150W	6A	6.3A	75 x 65 x 90mm	0.3kg
02811.9-00	02811.9-01	CSL 028	120VAC, 50/60Hz	250W	6A	6.3A	90 x 85 x 111mm	0.5kg
02810.9-00	02810.9-01	CSL 028	120VAC, 50/60Hz	400W	9A	6.3A	90 x 85 x 111 mm	0.5kg

\*at 20°C (68°F) ambient temperature