

# CIRRUS 25 & 40 Fan Heater Instructions

## Product Description

A versatile range of force air convection heaters for accurate climate control inside equipment enclosures. Incorporating PTC heater technology, this equipment requires no thermal overload protection.

All products in this range are IP20 (when fitted with front and rear finger guards).

## Application

- For use inside equipment enclosures to prevent condensation and provide climatic control
- For use inside Class 1 industrial cabinets to prevent condensation and provide climatic control

## Installation

1. Isolate the power supply before installing this unit
2. When used inside equipment that is accessible by trained personnel, the heater casing should be earthed using the M4 earthing screw and star washer provided. The star washer must be placed between the heater body and ring terminal.
3. The earthing conductor must be of 1mm<sup>2</sup> (18AWG) wire with a temperature rating of 100°C or above. It is advisable to use an uninsulated ring tongue crimp for securing the earth connection. If you have purchased one of the following heater units: 4\*\*150\*\*\*, 4\*\*200\*\*\*, 4\*\*230\*\*\* or 4\*\*230\*\*\* (e.g. 42F230AAE) the earth connection must then be rated at a continuous minimum temperature rating of 130°C and a de-rated continuous current carrying capacity of 8A
4. Do not over-tighten the earth screw (maximum torque 1Nm)
5. Leave 50mm clearance for ventilation around the fan heater
6. Do not allow electrical wire to come into contact with the body of the fan heater or directly in front of the hot air outlet
7. Do not mount the heater near any flammable materials
8. Not suitable for use in wet or corrosive environments
9. The DIN rail clip must be fitted to the heater by the manufacturer. In the absence of a DIN clip, the fan heater should be fixed to a secure mounting with No. 4 self-tapping screws. These must not protrude into the body of the heater more than 3mm
10. A means for disconnection must be provided in the fixed wiring of the system. This must have a contact separation of at least 3mm in all poles, and shall be incorporated in accordance with wiring regulations
11. This equipment should be protected by a Time delay "T" fuse to avoid false tripping due to cold starting
12. Do not apply pressure to the fan rotor. Any applied pressure will destroy the fan rendering the product inoperable

When connected to a DC supply, the fan wires should not be longer than 10m.

Wiring: consult your fan heater label for voltage information

## Fan

Red wire (+ve connection for DC or Live connection for AC)

Black wire (-ve connection for DC or Neutral connection for AC)

## Heater

Brown wire (Live connection for AC or +ve connection for DC)

Blue wire (neutral connection for AC or -ve connection for DC)

**Fusing: 115/230V operation**

| Heater Power  | Suggested fuse rating (time delay) |
|---------------|------------------------------------|
| Up to 100W    | 2A                                 |
| >100W to 230W | 4A                                 |
| 275W          | 5A                                 |

**Fusing 12-24V operation**

| Heater Power | Suggested fuse rating (time delay) |
|--------------|------------------------------------|
| Up to 40W    | 4A                                 |
| 50 to 60W    | 6A                                 |
|              |                                    |

**Product Description**

There are no user serviceable parts inside this unit. Disassembly or modification should not be attempted as this will invalidate the warranty.

The wiring harness for this equipment contains components critical to the units proper operation, therefore any cutting of the braided sleeve is not permitted.

- Ensure that the fan is not obstructed or blocked
- If your purchased model of fan heater has an air filter fitted, remember to replace the filter element every 6 months (sooner if used in extreme environments) with original equipment

**Warnings**

- Do not touch the heater during operation as it will be hot
- The heater will remain hot for several minutes after the power supply is removed
- Do not remove the adhesive labels
- The equipment should be earthed when used inside equipment accessible to trained personnel. An earthing connection is provided on the aluminum body of the heater by the supplied M4x6 machine screw and M4 star washer to ensure good electrical contact. (Not applicable to 24V heaters supplied from a class II supply)
- If installation step 3 applies and a braided earth bonding strip is used it will become hot and therefore should not be placed near wires or anything that may be affected by the elevated temperature
- If the fan and the heater are fed from independent supplies always ensure that the heater is turned off before the fan is stopped. Failure to do so will cause the case temperature of the heater to rise above normal operating temperature