

X20033

Infrared Heating | Heater Controller



# Infresco 4kW Variable Controller

4000W, 240v

Efficient Outdoor Heating with Energy-Saving Features



## CONTACT US:

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## KEY FEATURES:

- ✓ **Soft-Start:** Extends lamp life by up to 30%.
- ✓ **Variable Control:** Allows optimal comfort level adjustment.
- ✓ **Easy Installation:** Connects directly with a 13A plug for up to a 3kW load.
- ✓ **Energy Saving:** Heats only when needed.
- ✓ **Temperature Monitoring:** Heaters switch on only when the temperature drops below a preset point.

The Infresco 4kW Variable Controller is designed to optimise outdoor heating with a focus on comfort and energy efficiency. Specifically engineered for infrared heaters, this controller manages high in-rush currents with its soft-start feature, extending lamp life by up to 30%. With ten variable settings, it ensures the perfect comfort level for any area.

Equipped with optional energy-saving features, the controller automatically manages the heating system. The temperature sensor monitors ambient temperature, activating the heaters only, when necessary, while the Passive Infrared (PIR) sensor detects movement to switch on the heaters, conserving energy. The soft-start function facilitates easy installation and extends heater life.

Optional remote control (for VR models) allows for convenient power adjustment and switch-off.

Enhance your outdoor heating efficiency with the Infresco 4kW Variable Controller, ensuring comfort and energy savings for any application.

## TECHNICAL SPECIFICATIONS

|  |                                    |
|--|------------------------------------|
| Main Voltage                                 | 230VAC ±10% @ 50Hz                 |
| Max Load at 20°C Ambient                     | 4kW                                |
| Power Consumption                            | 50mA                               |
| PIR Set Time Period                          | 5 minutes                          |
| Temperature Set Point                        | 5 – 25°C                           |
| Factory Set Temperature Trip Point           | 20°C                               |
| Gland Diameter                               | Max Cable Entry 2.5mm <sup>2</sup> |
| 2 Lamp Installation                          | Must be fitted in parallel         |
| Ambient Operating Temperature                | -20°C to +30°C                     |
| IP Rating                                    | IP65                               |
| Unit's Max. Operating Temperature            | 65°C                               |
| Dimensions                                   | W=280mm D=200mm H80mm              |
| <b>PIR Movement Sensor (optional)</b>        |                                    |
| Operating Voltage                            | 12V DC                             |
| Direction                                    | 90° Adjustable                     |
| Detect                                       | 18 Metres                          |
| <b>Outdoor Temperature Sensor (optional)</b> |                                    |
| Dimensions                                   | W=115mm D=110mm H=55mm             |

## APPLICATIONS:

Ideal for any application requiring control and management of high in-rush currents, such as:

- **Outdoor Heating:** Perfect for patios, garden lighting, and dining areas.
- **Commercial Use:** Suitable for restaurants, hospitality areas, and other commercial spaces.
- **Industrial Environments:** Ideal for warehouses and workshops using infrared heating lamps.



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## INSTALLATION

### Infresco (Guidelines)

**NOTE: Not complying with any of these rules may invalidate the warranty**

The unit is designed to be wall-mounted with the cable glands facing downwards. Fixing centres are provided to pre-drill mounting holes to suit. No additional holes should be drilled into the enclosure. It may be necessary to use 'stand-off' pillars to aid cooling – see SAFETY FIRST section. The PCB must not be removed from the heatsink/enclosure.

### Push button operation (see also INSTALLATION CIRCUIT section – Front panel)

To adjust the power output levels from power up:

- Sustained pressure on the '**UP**' arrow will result in the power output stepping through the power levels from '**0 to 9**' then '**F**' (fully on).
- Sustained pressure on the '**DOWN**' arrow will result in the power output stepping through the power levels from '**F**' to '**0**' (zero).
- A momentary press of the '**UP**' arrow will result in the output going immediately to '**F**' (fully on)
- A momentary press of the '**DOWN**' arrow will result in the output going immediately to '**0**' (zero)

### Display Features

|   |  |
|---|--|
| Display shows 't':  | The controller is turned off as the ambient temperature is above the trip level set by <i>TEMP. SET.</i>   |
| Display shows 'F':  | The controller is set to full output.  |
| Display 'decimal point' pulses:   | The PIR input is waiting to be enabled i.e. no movement.<br><br><i>If you are seeing this and <b>DO NOT HAVE A PIR</b>, please ensure that the wire link is fitted between 'sig in' and 'com' at the PIR terminal.</i> |
| Display decimal point fully on:   | The unit is in standby mode. Pressing the remote-control power button will toggle the power on and off.  |
| You can check to see if the remote control is transmitting by observing the decimal point flashing rapidly. |  |



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## PIR Sensor Use (Guidelines)

**Commissioning** *(Only applicable if you are using a Temperature sensor or PIR when installing the controller)*

**NOTE 1:** The PIR takes 60 seconds to activate before detection can occur.

**NOTE 2:** The PIR continues to monitor the area and will reset to the set time every time it detects movement.

Before testing ensure the wiring is correct, the temperature trip point SET TEMP cermet is set to 20°C (default factory setting). The PIR time-on is fixed to 5 minutes (nonadjustable).

The expected detection area can now be tested by walking, crossing in various directions to ensure coverage is as expected.

- A. On initial switch 'ON' if the enable link (SIG IN / COM) is missing the unit will operate normally for a period of 30 seconds before the output switches 'OFF'.
- B. If the unit is operating and the enable link (SIG IN /COM) is removed the unit will continue to operate for 5 minutes before the output switches 'OFF'. If the link is not replaced then on re-applying the power then the controller will operate as in 'A' above.

**Note:** To prevent malfunction of the PIR sensor, avoid subjecting it to rapidly changing temperatures, strong shock or vibration or high humidity and temperature.



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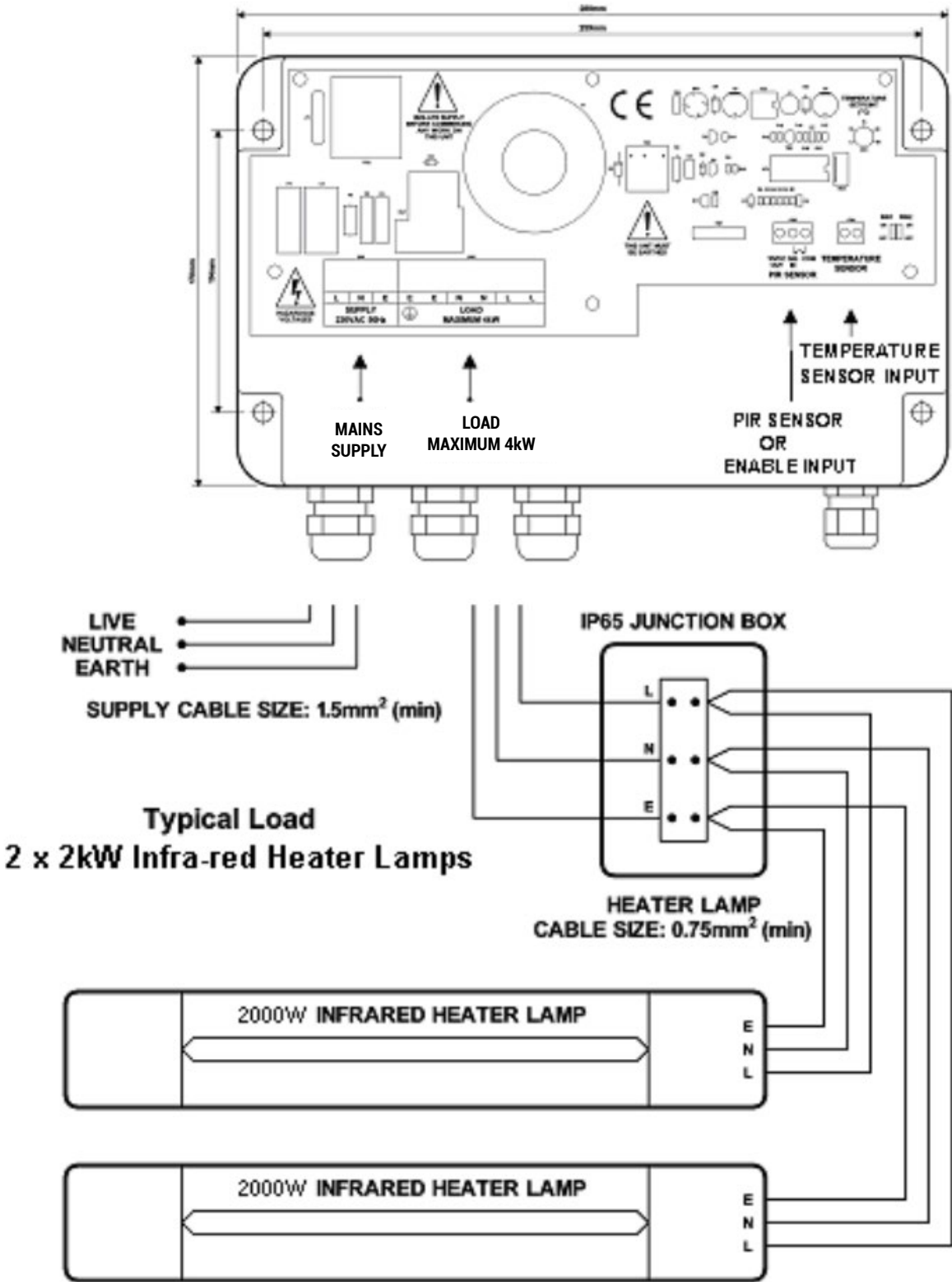
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## INSTALLATION CIRCUIT



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## RECOMMENDATION

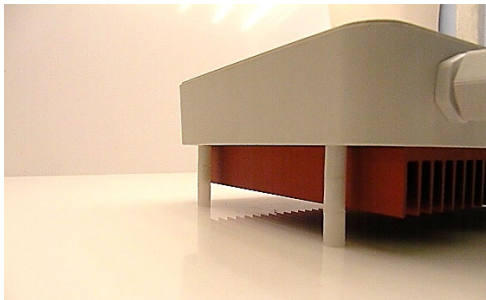
## DOCUMENTS

Other documents, which may be appropriate for your applications, are available on request.

| Code   | Identity | Description  |
|--------|----------|--|
| X10726 | ILS      | Local Temperature Sensor   |
| X10727 | IRS      | Outdoor Temperature Sensor   |
| X10728 | PIR      | 12V PIR  |
| X10729 | VR-H     | Remote Handset   |
| X10213 | ITA      | Interaction: Uses for phase angle and for burst fire control.  |
| X10255 | SRA      | Safety requirements: Addressing the Low Voltage Directive (LVD) including Thermal data/Cooling, Live parts warning, Earthing requirements & Fusing recommendations |
| X10378 | ILR      | Inductive loads remedy sheet for use with Phase angle controllers.   |
| P01.1  | COS      | UAL Conditions of Sale   |

**NOTE:** It is recommended that installation and maintenance of this equipment should be carried out by suitably qualified personnel, with reference to the current edition of the I.E.T. Wiring Regulations BS7671. The regulations contain important requirements regarding the safety of electrical equipment.

## SAFETY REQUIREMENTS



### **WARNING**

The Infresco controller **MUST NOT** be mounted directly to any flammable material i.e. wood.

It is recommended that the heatsink be spaced off the mounting wall using pillars to aid in heat dissipation.

## OPTIONAL EXTRAS

| Product Code | Product Description                         |
|--------------|---|
| A26051       | Infresco PIR Movement Sensor                |
| A86352       | Remote Control Handset                      |
| A26038       | Remote Temperature Sensor                   |
| A-HL-E72C-1  | Wall Mounted Patio Heater 1.5kW (no remote) |

## PRODUCT CODE AND RELATED PRODUCT CODE

| Product Code | Product Description                       |
|--------------|---|
| A86393       | Infresco 4kW Remote - Variable Controller |
| A86394       | Infresco 4kW Manual - Variable Controller |



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