### X20029 Infrared Heating | Heater Controller

# Infresco 6kW Variable Controller

6000W, 240v Efficient Outdoor Heating with Energy-Saving Features

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### **KEY FEATURES:**

**APPLICATIONS:** 

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rush currents, such as:

dining areas.

heating lamps.

Ideal for any application requiring control and management of high in-

Outdoor Heating: Perfect for

**Commercial Use:** Suitable for restaurants, hospitality areas, and other commercial spaces.

patios, garden lighting, and

Industrial Environments: Ideal for warehouses and workshops using infrared

- ✓ 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 6kW 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 6kW Variable Controller, ensuring comfort and energy savings for any application.

TECHNICAL SPECIFICATIONS		
Main Voltage	230VAC ±10% @ 50Hz	
Max Load at 20°C Ambient	6kW	
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	
PIR Movement Sensor (optional)		
Operating Voltage	12V DC	
Direction	90°Adjustable	
Detect	18 Metres	
Outdoor Temperature Sensor (optional)		
Dimensions	W=115mm D=110mm H=55mm	



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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 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. <i>If you are seeing this and DO NOT HAVE A</i> <i>PIR</i> , please ensure that the wire link is fitted between <i>'sig in'</i> and <i>'com'</i> at the <i>PIR</i> <i>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.		

### **Display Features**



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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.



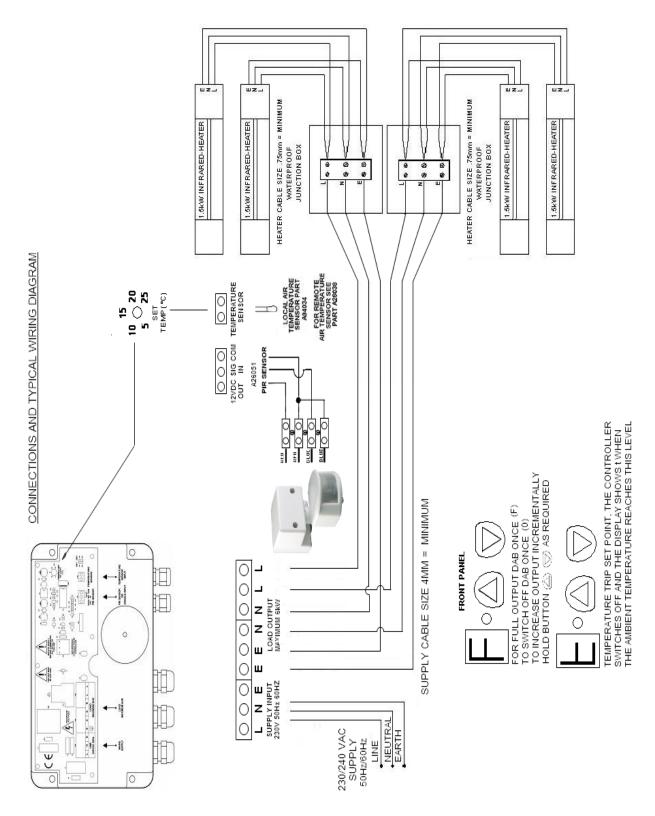
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# **INSTALLATION CIRCUIT**





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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 <u>MUST NOT</u> 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
A86395	Infresco 6kW Variable Controller -Efficient Outdoor Heating with Energy-Saving Features



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