



Product Overview

The AX-PPR-3-150 Power Regulators are designed to provide continuously adjustable control of electric heating loads from a BMS Controller or similar. Applications include electric heating coils, heating cables and electric furnaces. The AX-PPR-3-150 use solid-state switching with “zero crossing technology” to reduce RFI problems and provide accurate switching control . LED Indication of Output ON and are designed for panel mounting. The AX-PPR-3-150 feature three cooling fans which turns on automatically when the built in thermostat exceeds 60 degC. No additional heatsinks or fans are needed.

Features

- 0-10Vdc Control Input
- 150kW Model
- Built in Thermostat to switch on integral fans
- Three Integral Fans
- Alarm Output
- LED Indication

Product Specifications

Input:	0-10Vdc
Fan Supply:	230Vac 50/60Hz
Max Heater Duty:	150kW
Rated Load:	228Amps
Dissipated Heat:	735 Watts
Rated Supply:	415Vac / 50/60Hz
Fuses:	3 x 250FM fuses built in
LED Indication:	ON when output is on.
Terminals:	
Control:	M8 Stud connections
Power - 150kW:	M8 stud connections
Ambient Temp. Range:	0 to 45 degC
Dimensions:	403 x 240 x 168mm
Country of Origin:	United Kingdom

Order Codes

AX-PPR-3-150 - 150kW Three Phase Power Controller

Installation and Configuration

The AX-PPR-3-150 Power Controllers are designed for mounting on a vertical panel. It is important that free air movement around the unit is not restricted. Allow sufficient air space between adjacent units to allow optimum performance of the heatsink. Installation must be carried out by a suitably trained electrician, and in accordance with the relevant statutory regulations. These units **MUST** be earthed using the M6 stud provided and the Load Terminals must be tightened to the torque specified in the Specification Table.

Load Supply and Back-up Protection:

The AX-PPR-3-150 Power Controllers feature internal quick acting semiconductor fuses to protect the switching devices. The Load Cables must be protected by external appropriate fuses or MCB's in the usual manner. Load cables must be sized such that they are rated in excess of the fuse ratings. If in doubt, contact Axio for advice.

Internal Fuse Ratings:

AX-PPR3-150 250A FM4 Semiconductor Type

Semiconductor Fuse Replacement:

Disconnect from the main supply before attempting to remove the cover. Remove the main cover earth strap and then the four cover retaining screws. The main cover earth strap must be fitted before re-applying the power.

Cables:

Screened cable should be used for connections to BMS Controllers, where possible the cable screen should be connected to a functional earth (not mains safety earth); normally the screen should be earthed at one end only to avoid earth loops.

Cycle Time

The Cycle Time is preset. An 0-10Vdc Input Signal of 5V equates to the load being at 50% ON and likewise with an input of 2.5V the load will be 25% ON. A 10V input will equal 100% i.e. full ON.

Operation

The AX-PPR-3-150 is designed to control electric heating loads in linear proportion to the incoming 0-10Vdc control signal. Control is by solid-state semiconductor devices which control the load using pulse width modulation (PWM) techniques. These devices feature zero crossing point switching of the AC load which virtually eliminates RFI problems.

CAUTION!

In normal operation the heatsink surface can exceed 90°C. Dangerous voltages exist inside the unit and particular care should be taken. The AX-PPR-3-150 Power Controllers must be installed in accordance with the relevant statutory regulations and installation must be carried out by an experienced and fully qualified engineer.

Ventilation:

The AX-PPR-3-150 are designed to operate in a maximum ambient temperature of 45°C, which should not be exceeded. If necessary, enclosures or control panels should be ventilated with a cooling fan.

Over Temperature Monitoring:

A thermostat is fitted to the unit to protect against over temperature. When the temperature of the unit reaches 60 degC the three fans placed above the Thyristors are automatically switched on.

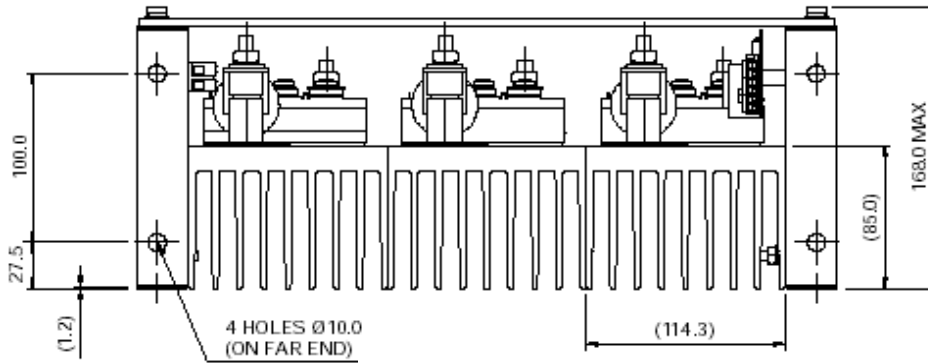
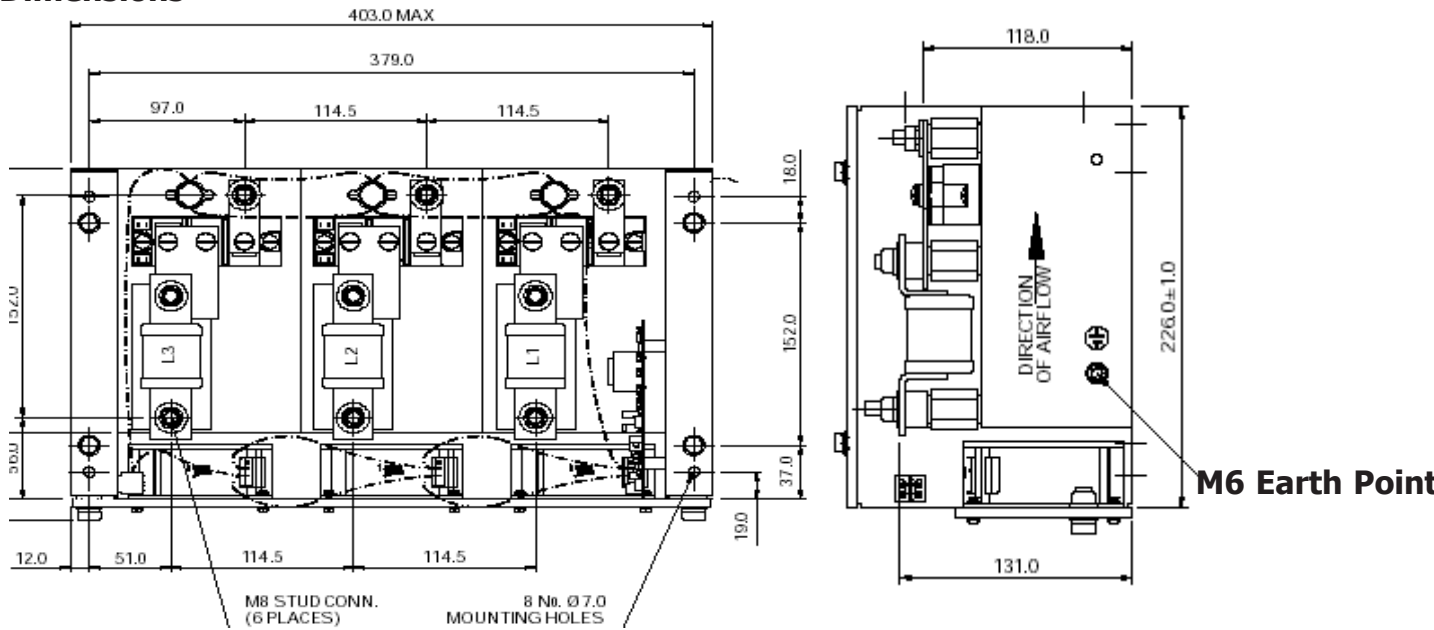
NOTE: It is imperative that the power connections are fully tightened, without excessive force, and ensure the maximum area of cable is in contact with the terminals.

AX-PPR-3-150

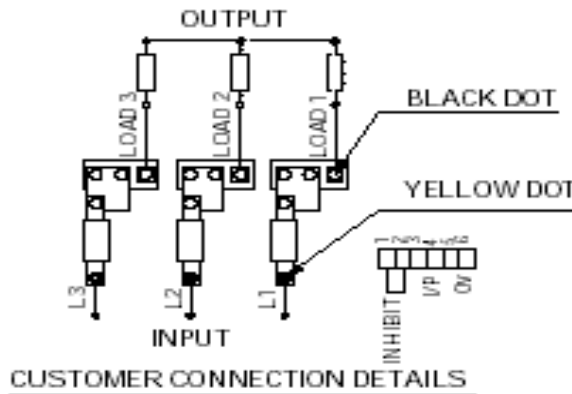
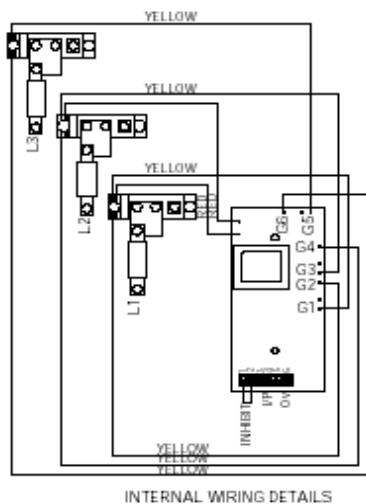
150kW Three Phase Power Regulators



Dimensions



Connection



Connection :- (do not touch inhibit link T1 & T2)

the three yellow dots are the input

the three black dots are the output

T3 0-10V input

T4 0-10V input

T5 0V

T6 0V

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