

X10205 – PSR-25

Phase Angle Power 25A AC Control Module

Issue 11



1 Interaction/Introduction

The PSR-25 power control module is a high-power, full-wave AC phase-angle controller in a compact package. It is capable of regulating up to 6kW (25A) 230V AC. The PSR-25 regulator governs the amount of power supplied to the load, by controlling the phase-angle of the ac supply. The low thermal impedance and high electrical isolation provide the equipment designer with a greater flexibility in a wide variety of applications. Optional extras are available on request, including a plastic terminal cover and an additional heatsink for use at full power.

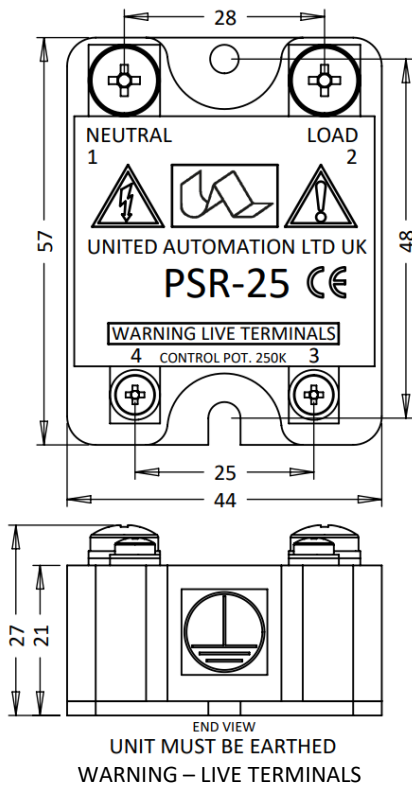
2 Applications

Suitable for quartz lamps, conventional resistive heating elements, ovens, moulders and dryers and some inductive loads (e.g., transformers and motors).

3 Features

- Simple wiring
- Rugged and compact
- 25A current capability
- Internal snubber

4 Installation



(Switch off mains before commencing any servicing work)

5 Fusing

It is recommended that semiconductor, fast acting type fuses or circuit breakers (Semiconductor – MCB) be used for unit protection. On initial operation, some loads may need an increased factor of safety for unit and/or device protection. See SRA datasheet for further information.

6 CE Marking

This product family carries a “CE” marking. These phase angle controllers need a suitable remote filter. For information see recommendation section and contact our sales desk (see Declaration of Conformity).

4.1 Fixing Requirements

For 25A operation, the unit should be fastened to a heatsink rated at 1.3°C per Watt @ ambient temperature of 35°C. A typical example is a redpoint type KA100-1 earth heatsink using a 4mm screw with a metal contact between the base and the heatsink. Heatsink paste is ESSENTIAL (see cooling requirements).

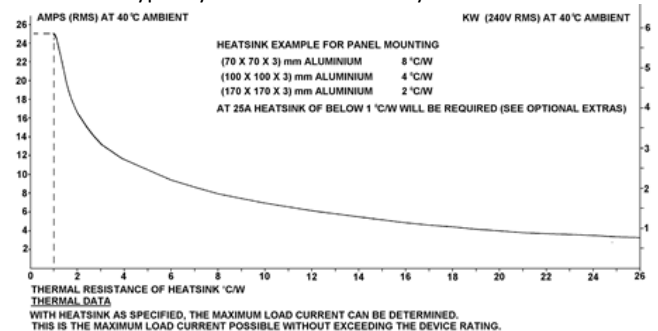
4.2 RFI Filter

A suitable filter will be required for this unit.

Note: Max. load current should match the nearest suitable filter e.g., 25A filter shown for 25A Max. load.

4.3 Conductivity of Materials

Stainless steel typically 15 times less thermally conductive and mild steel is typically 5 times less thermally conductive.



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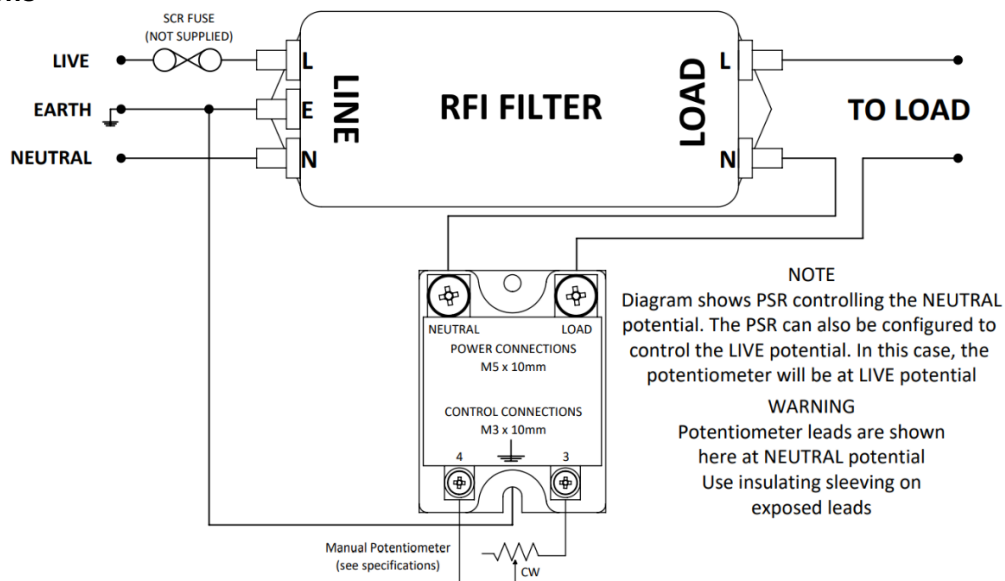
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7 Connections



8 Technical Specification

AC Line Voltage	110/230V ±10% @ 50/60Hz	Unit Limiting RMS Current	25A
Peak One Cycle Surge (10ms)	250A	Max. Peak Voltage	600V AC
I ² t for Fusing	250A ² s	Minimum Operating Current	200mA
Isolation Voltage	5000V RMS	Leakage Current	5mA
Max. Operating Temperature	65°C	Manual Potentiometer (nominal)	250KΩ @ 230V AC
Storage Temperature	-20°C to +85°C		100KΩ @ 110V AC

9 Recommendations

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

Code	Identity	Description
X10229	RFI	Filter recommendations: Addressing the EMC Directive
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 and 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 done with reference to the current edition of the I.E.T. (formally I.E.E.) regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding installation and safety of electrical equipment. Specific installers should refer to local and national regulations.

10 Order Code

Part number	A01725
Optional Extras	Potentiometer, filter, heatsink, heatsink paste, SSR cover. Note: when ordering a filter, the current at which the PSR is to be used at will be required.

11 Common Use-cases



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