

X10205

Variable AC Voltage Regulators

# PSR-25

25A, 230V

Phase Angle Power Control Module

## CONTACT US:

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## KEY FEATURES:

- ✓ **Solid State Reliability:**  
Ensures consistent performance and longevity.
- ✓ **Epoxy Encapsulated:**  
Protects against environmental factors.
- ✓ **Simple Wiring:** Easy installation and integration into existing systems.
- ✓ **Rugged and Compact**
- ✓ **Design:** Suitable for demanding industrial environments.
- ✓ **High Current Capability:**  
Capable of handling substantial electrical loads.
- ✓ **Internal Snubber:**  
Minimises voltage spikes and protects connected devices.

Introducing the PSR-25 Power Control Module, a high-powered AC phase angle controller packed into a compact design, capable of regulating up to 6KW (25A) at 230V ac. This solid-state regulator empowers equipment designers with precise control over power supply by managing the phase angle of the AC input. With low thermal impedance, high electrical isolation, and a range of features, the PSR-25 offers unparalleled flexibility for a variety of applications.

Empower your equipment design with the PSR-25 Power Control Module, a reliable and compact solution that provides precise power regulation for diverse industrial applications. Upgrade your power control systems with this feature-rich module for optimal performance and efficiency.

## TECHNICAL SPECIFICATIONS

AC Line Voltage	110 / 230V +/-10% @ 50/60 Hz
Peak one cycle surge (10ms)	250A
I <sup>2</sup> t for fusing	250A <sup>2</sup> s
Isolation Voltage	5000Vrms
Max. operating temperature	65°
Storage Temperature	-20°C to +85°C
Unit limiting RMS Current	25A
Max. Peak Voltage	600Vac
Min. Operating Current	200mA
Leakage Current	5mA
Manual Potentiometer (nominal)	250K 1W @230Vac
	110K 1W @ 110Vac

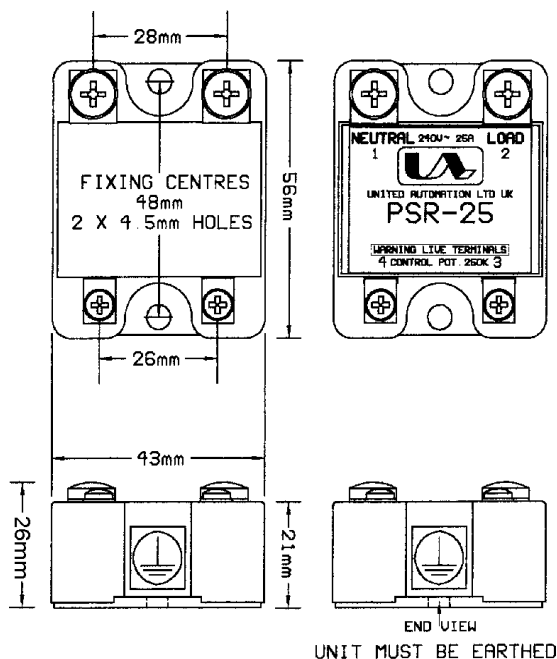
## APPLICATIONS:

Ideal for a diverse range of applications, including:

- Ovens
- Fish & Chips equipment.
- Restaurant appliances.
- Hospitality systems.
- Quartz lamps and heat lamps.
- Moulding machines.
- Dryers.
- Inductive loads such as transformers and motors.

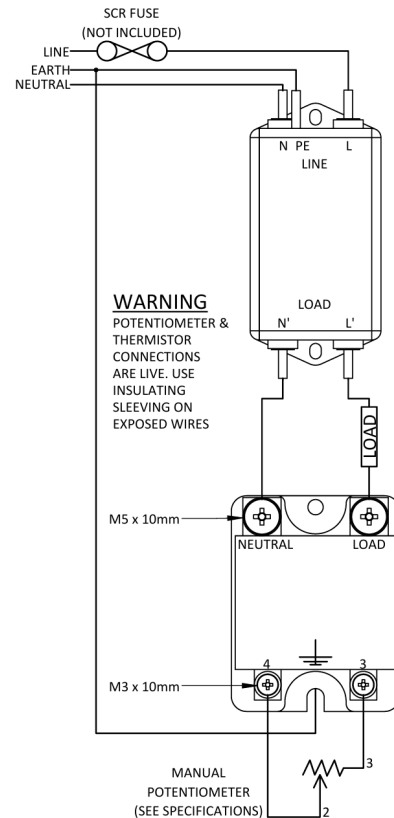
### YOU MUST READ THIS BEFORE INSTALLATION

 ELECTRICAL SAFETY	 INSTALLATION REQUIREMENTS	 USER RESTRICTIONS	 USAGE ENVIRONMENT	 HOT SURFACE WARNING
<b>WARNING: RISK OF ELECTRIC SHOCK</b> Always consult the Installation & Maintenance Instructions before connecting this product to the power supply. <b>WARNING: Disconnect Power Before Servicing</b> Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals.	<b>WARNING: Installation by Qualified Personnel Only</b> This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.	<b>WARNING: Not for Use by Vulnerable Individuals</b> This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.	<b>WARNING: Industrial Use Only</b> This is an industrial-grade product and is not intended for household use.	<b>WARNING: Hot Surfaces</b> On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

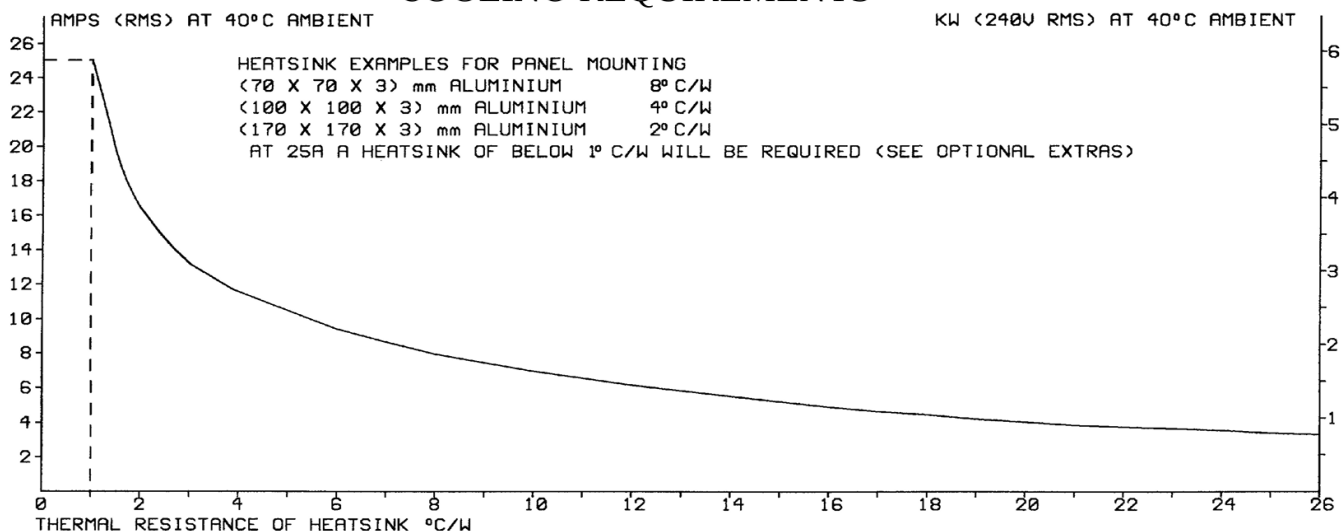
**INSTALLATION****DIMENSIONS & CONNECTIONS****DIMENSIONS****FIXING REQUIREMENTS**

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 OR BOLT TOGETHER WITH A STAR WASHER, ENSURING THAT THERE IS A GOOD METAL TO METAL CONTACT BETWEEN THE BASE AND THE HEATSINK. HEATSINK PASTE IS ESSENTIAL (SEE COOLING REQUIREMENTS).

A SUITABLE FILTER WILL BE REQUIRED FOR THIS UNIT.  
NOTE: MAX. LOAD CURRENT SHOULD MATCH NEAREST SUITABLE FILTER, e.g. 25A FILTER SHOWN FOR 25A MAX. LOAD.



**WARNING - LIVE TERMINALS**  
(SWITCH OFF MAINS BEFORE COMMENCING ANY SERVICING WORK)

**COOLING REQUIREMENTS****THERMAL DATA**

WITH HEATSINK AS SPECIFIED, THE MAXIMUM LOAD CURRENT CAN BE DETERMINED. THIS IS THE MAXIMUM LOAD CURRENT POSSIBLE WITHOUT EXCEEDING THE DEVICE RATINGS.

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## RECOMMENDATIONS

### FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection. On initial switch on some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for information.

### DOCUMENTS

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

Code	Identity	Description
<b>X10229</b>	RFI	Filter recommendations: Addressing the EMC Directive
<b>X10213</b>	ITA	Interaction: Uses for phase angle and for burst fire control
<b>X10255</b>	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including, Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

### OPTIONAL EXTRAS

Product Code	Product Description
<b>A403079</b>	PSR/TPSR 100K Pot & Leads c/w Min Set Eyelet Crimps
<b>Z01062</b>	Heatsink Compound Syringe <b>(Must be applied while fitting)</b>
<b>A80030</b>	SSR Cover Kit
<b>A-EN2010-30-S*</b>	30A 10 series EMI Single phase Chassis Mount filter

\*Note: When ordering a filter, the current at which the PSR is to be used at will be required.

## PRODUCT CODE AND RELATED PRODUCT CODE

For 25A	
Product Code	Product Description
A01725	PSR-25, 25A, 230V Phase Angle Power Control Module



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