

X10205

Variable AC Voltage Regulators

# PSR-25

25A, 230v

Phase Angle Power Control Module



## CONTACT US:

☎ 0044 (0) 1704-516 501

✉ enquiries@united-automation.com

🌐 www.united-automation.com

## 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:**  
Minimizes 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

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



BMF House - Wight Moss Way,  
Southport Business Park  
Southport PR8 4HQ  
ENGLAND

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# PSR-25

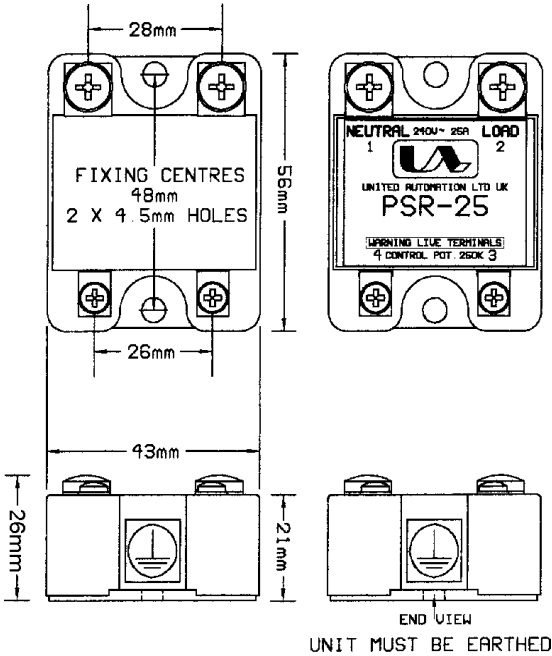
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## INSTALLATION

## DIMENSIONS & CONNECTIONS

### DIMENSIONS

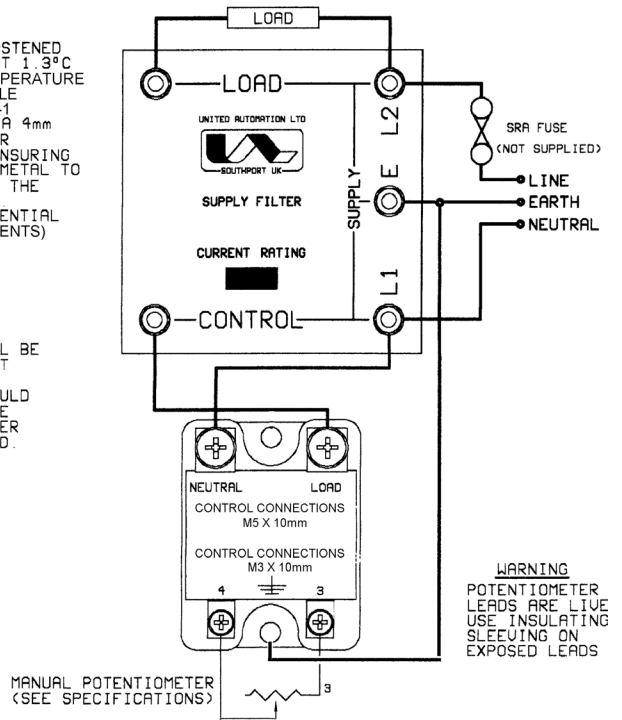


### FIXING REQUIREMENTS

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)

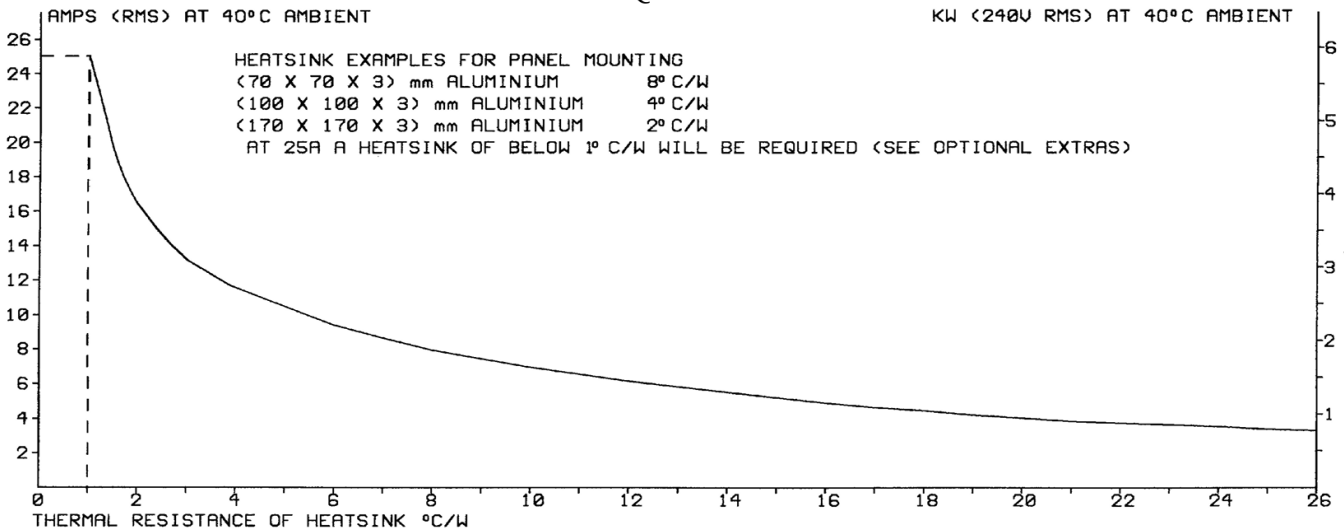
A SUITABLE FILTER WILL BE REQUIRED FOR THIS UNIT  
NOTE:  
MAX. LOAD CURRENT SHOULD MATCH NEAREST SUITABLE FILTER e.g. 25A FILTER SHOWN FOR 25A MAX LOAD.

### CONNECTIONS



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

## COOLING REQUIREMENTS



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
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

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
A403079	PSR/TPSR 100K Pot & Leads c/w Min Set Eyelet Crimps
Z01062	Heatsink Compound Syringe <b>(Must be applied while fitting)</b>
A80030	SSR Cover Kit
A-EN2010-30-S*	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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