



# MINI RANGE AC PHASE ANGLE AND BURST FIRE POWER REGULATORS STACKS

**EVR  
SERIES**  
X10532

**INTRODUCTION**

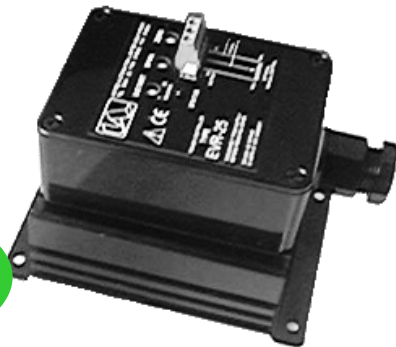
The EVR range of triac 'Mini Stacks' are available for single phase, 230V applications. Other voltage supplies are also available. They can control loads of up to 25A, with a number of signal control options. The stacks are assembled to suit the final load, with options of phase angle or burst firing control. All EVR triac stacks come complete with appropriately rated High Speed semiconductor fuses and an integral heatsink.

**APPLICATIONS**

Suitable for heaters, ovens, dryers, air curtains, hot plates, heating and ventilation. SCR solid state phase angle power handing gives smooth proportional control of all types of industrial processes, e.g. furnaces, electroplating, controlled rectifiers, transformers etc.

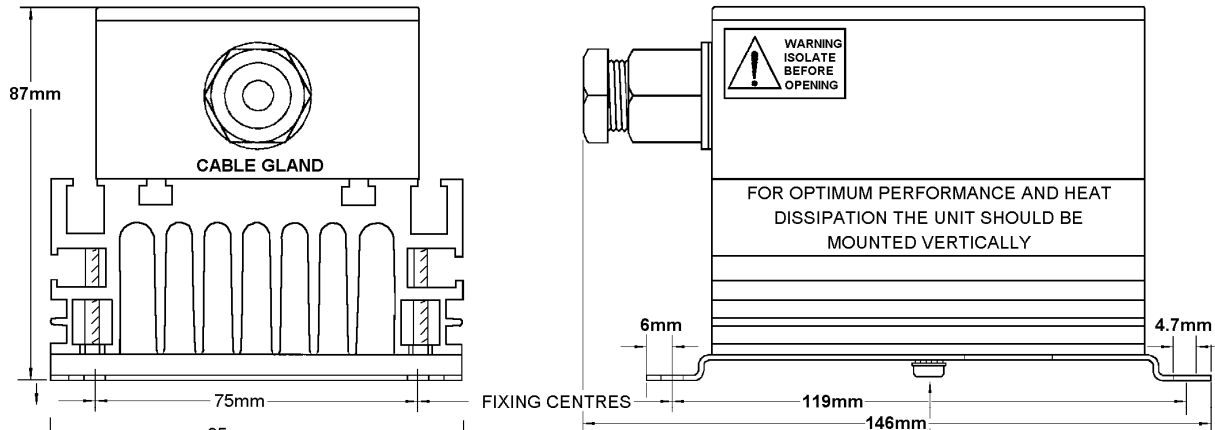
**FEATURES**

- Single entry cable gland.
- 0.3°C/W earthed heatsink for 25A capability.
- Phase-angle or burst-firing versions available.
- Semiconductor fuses fitted.
- Simple installation.
- Optional input control.

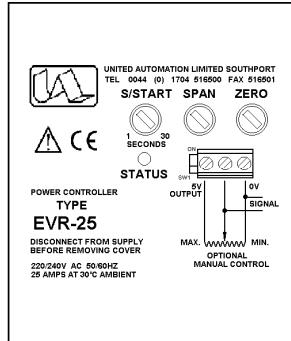
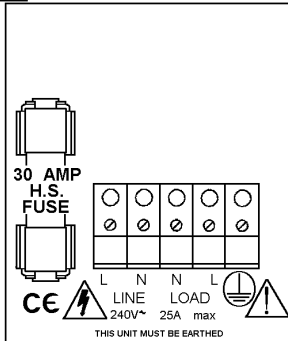


**INSTALLATION**

**CONNECTION AND DIMENSION**

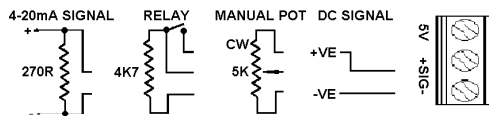


**CONNECTIONS**



**(EARTH BONDING DO NOT REMOVE)**

**CONTROL OPTION**



NOTE: SW1 ON FOR 4-20mA

**WARNING**

SWITCH OFF MAINS SUPPLY BEFORE COMMENCING ANY SERVICING WORK

## **INSTALLATION**

### **COOLING REQUIREMENTS**

Heatsink rating for standard stack assembly is calculated when naturally cooled. If mounted in an enclosure or Cabinet, adequate ventilation and/or forced cooling should be fitted. When thermal trips are fitted we recommend that they are wired in line with the signal, so as to switch off the thyristors in an over temperature situation.

Unusual heating loads such as molybdenum, platinum or tungsten, typically have a 10 to 1 hot to cold resistance ratio and therefore when cold, draw larger currents than normal. Transformers and other inductive loads have surge starting currents and require the correct type of phase angle firing circuit. These and similar types of surge loads, should be indicated, so that appropriate slow start or larger rated units can be correctly supplied for the specific needs.

Note: The unit is factory set for manual control or 0-5V dc. For 4-20mA control, the zero will need recalibrating.

Mains voltage	230V ac +10% -6%	Auxiliary output	5V dc
Signal span minimum	0-5V dc	Triac limiting rms current	26A
Signal span maximum	0-25V dc	Peak single cycle surge current	250A
Signal zero offset	0-30% of span	Max. peak voltage	600V
Signal input resistance	5k $\Omega$ $\pm$ 20%	Current rating	25A
Manual potentiometer	2, 5 or 10k $\Omega$	Replacement fuse	30A 660V SCR type
Soft start time constant	0-20 seconds	Max. working temperature	65 $^{\circ}$ C operational
Isolation voltage	2.5kV rms	Storage temperature	0 to 85 $^{\circ}$ C

## **FUSING**

It is recommended that semiconductor (fast acting) type fuses or circuit breakers (semiconductor-MCB) are used for 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 further information.

## **CE MARKING**

This product family carries a "CE marking". The EVR phase angle controller requires a suitable remote filter. For information see recommendation section and contact our sales desk. (See Declaration of Conformity).

## **RECOMMENDATIONS**

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

<b>CODE</b>	<b>IDENTITY</b>	<b>DESCRIPTION</b>
X10229	RFI	1-Phase Filtering recommendations - addressing 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 & Earth requirements; Fusing recommendations.
P01.1	COS	UAL Conditions of sale.
X10390	ZSS	Zero and Span setup guidelines

**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.

## **ORDER CODE**

*State part number:* EVR-25-Phase Angle/Burst Fire.

Optional extras include F-series Filter.

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



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Page No. 2 of 2

Issue 3

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