



# 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.

RoHS Compliant  
Directive  
2002/95/EC

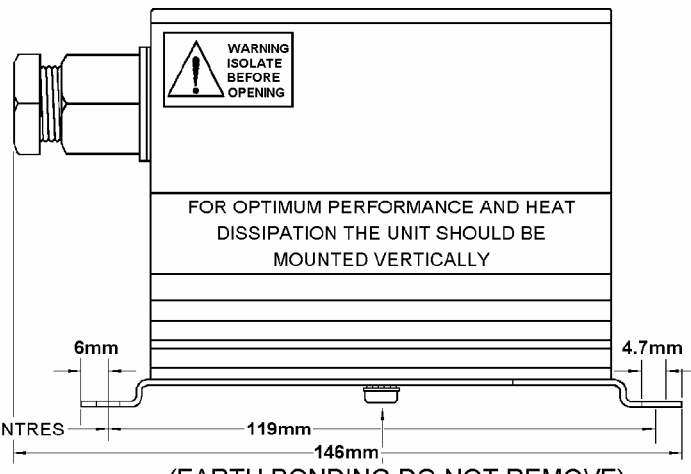
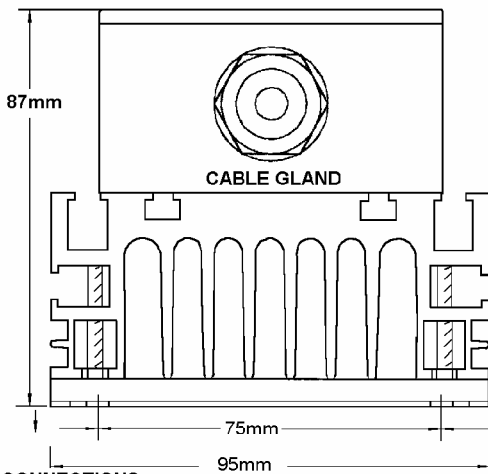
### FEATURES

- Single entry cable gland.
- Massive 0.3°C/Watt earthed heatsink.
- Phase angle or Burst firing versions available.
- Semiconductor fuses fitted.
- Simple installation.
- Optional input control

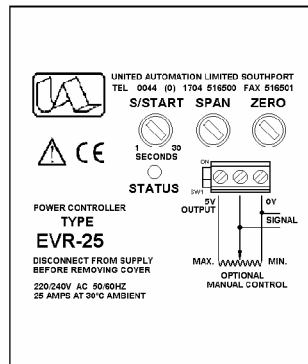
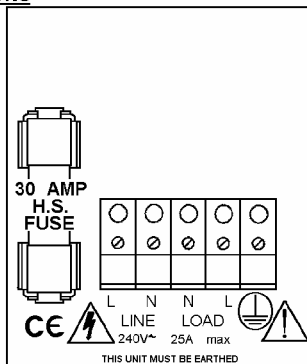


### INSTALLATION

### CONNECTION AND DIMENSION

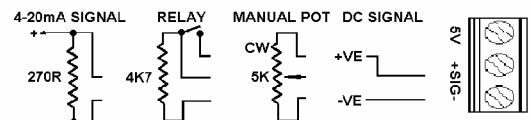


### CONNECTIONS



(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 0-5Vdc. For 4-20mA the zero will need recalibrating

Mains voltage	230V ac +10% -6%	Auxiliary Output	5Vdc
Signal Span Minimum	0-5Vdc	Triac Limiting RMS Current	26A
Signal Span Maximum	0-25Vdc	Peak Single Cycle Surge Current	250A
Signal Zero Offset	0-30% of Span	Max. Peak Voltage	600V
Signal Input Resistance	5000 ohms $\pm$ 20%	Current Rating	25A
Manual Potentiometer	2K, 5K, or 10K	Replacement Fuse	30A 660V SCR type
Soft Start Time Constant	0-20 seconds	Max. Working Temperature	65°C operational
Isolation Voltage	2500 Vrms	Storage Temperature	-20°C to +85°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 Data sheet 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.
	AP02/4	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.E. wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. For International Standards refer to I.E.C/ directive IEC 950.

## **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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