



# 4KW 1-Phase Fan Speed Controller Enclosed

**EVR-4KW  
PA**

X10773

## INTRODUCTION

This 4KW 'Mini Stack' is available for single phase, 230V applications. Other voltage supplies are also available. The unit can control loads of up to 17A, with a number of signal control options. The controllers are assembled to suit the final load, operating in phase angle mode. The controller comes complete with appropriately rated High Speed semiconductor fuse and an integral heatsink.

## APPLICATIONS

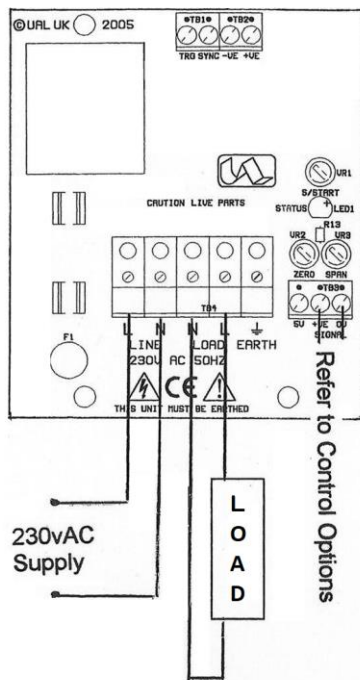
Suitable for heaters, ovens, dryers, air curtains, hot plates, heating and ventilation. SCR solid state phase angle power handing gives smooth proportional control of all types of industrial processes, e.g. furnaces, electroplating, controlled rectifiers, transformers etc.

## FEATURES

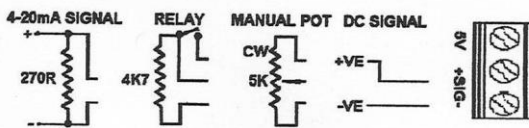
- Wide range of Control Signal Options.
- Convection Air-Cooled heatsink.
- Phase angle control with Soft-Start (0 to 20 sec. delay).
- SCR-type (Triac protection) fuse fitted.
- Panel mounted
- Fully enclosed c/w cable glands



## CONNECTIONS



### 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 0-20mA, a 270R resistor will be required to be fitted across the '+ve' & '0v' terminals and the zero & span adjusters will need recalibrating

<b>Mains voltage:</b>	230Vac +10% -6%	<b>Control option - auxiliary output:</b>	5V dc
<b>Control signal span (Min.):</b>	0-5V dc	<b>Triac limiting RMS current:</b>	26A
<b>Control signal span (Max.):</b>	0-25V dc	<b>Peak single cycle surge current:</b>	250A
<b>Control signal zero offset:</b>	0-30% of Span	<b>Max. peak voltage:</b>	600V
<b>Signal input resistance:</b>	5000Ω ±20%	<b>Current rating:</b>	17A
<b>Manual potentiometer:</b>	2K, 5K, or 10K	<b>Max. working temperature:</b>	65°C operational
<b>Soft start time constant:</b>	0-20 seconds	<b>Replacement fuse:</b>	20A, 660V ac 1 ¼ "
<b>Isolation voltage:</b>	2500V RMS	<b>Storage temperature:</b>	0°C to +85°C
<b>Dimensions (Max.):</b>	<b>A407315</b>	<b>150mm (D) x 90mm (W) x 90mm (H)</b>	Without glands & mounting flanges
<b>Fixing Centres</b>	<b>4x4.5mm dia holes</b>	<b>135mm (D) x 108mm (W)</b>	

## **FUSING**

The unit requires an SCR-Type(or FF-Type), fast acting fuse. 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 4KW phase angle controller requires a suitable remote filter. For information see recommendation section and contact our sales desk. (See product 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:** A72260 – Fan Speed Controller (Metal Enclosure)

**Optional extras:** include F-series Filter, Spare fuse.

**Note:** When ordering a filter, the maximum working current will be required.



## **UNITED AUTOMATION LIMITED**

Southport Business Park  
Wight Moss Way  
Southport, PR8 4HQ  
ENGLAND

Tel: 0044 (0) 1704 – 516500  
Fax: 0044 (0) 1704 – 516501  
enquiries@united-automation.com  
www.united-automation.com

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Issue 3

Date 26/05/21

