

# UNIVERSAL PHASE ANGLE CONTROLLER

# C/W INTEGRAL POWER DEVICE

FC11AL/2

X10260

### INTRODUCTION

This single phase firing module with integral 26A triac, uses variable phase angle control with adjustable signal matching and selectable soft-start. The power supply transformer is remote for increased reliability and wide operational voltage capabilities. The FC11AL/2 controller governs the amount of power supplied to the load, by controlling the AC supply. A ramp and pedestal input circuit, allowing variation of firing phase angle by DC signal, enables more power through to the load with increasing angle.

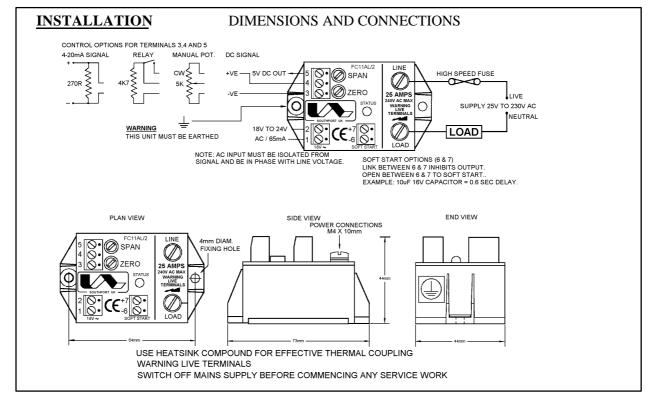
### APPLICATIONS

Suitable for most AC resistive loads with current ratings up to 25A when fitted onto a suitable heatsink (see cooling requirements). Also some inductive loads such as transformers and full wave vibrators.

### **FEATURES**

- Integral 26A triac.
- Wide range of control signal inputs (voltage or current).
- Selectable soft-start signal delay function, (Terminals 6 & 7)
- Status LED giving output level indication.
- Consumes under 2 Watts.





# AMPS (RMS) AT 40°C AMBIENT AMPS (RMS) AT 40°C AMBIENT THEATSINK EXAMPLES FOR PANEL MOUNTING (70 X 70 X 3) mms ALUMINIUM (170 X 170 X 3) mms ALUMINIUM AT 25A HEATSINK OF BELOW 1°C/W WILL BE REQUIRED (SEE OPTIONAL EXTRAS) AMPS (RMS) AT 40°C AMBIENT FOR THEATSINK EXAMPLES FOR PANEL MOUNTING (70 X 70 X 3) mms ALUMINIUM 4°C/W AT 25A HEATSINK OF BELOW 1°C/W WILL BE REQUIRED (SEE OPTIONAL EXTRAS) AMPS (RMS) AT 40°C AMBIENT FOR THEATSINK EXAMPLES FOR PANEL MOUNTING (70 X 70 X 3) mms ALUMINIUM 2°C/W AT 25A HEATSINK OF BELOW 1°C/W WILL BE REQUIRED (SEE OPTIONAL EXTRAS) AMPS (RMS) AT 40°C AMBIENT FOR THEATSINK EXAMPLES FOR PANEL MOUNTING (70 X 70 X 3) mms ALUMINIUM 2°C/W AT 25A HEATSINK OF BELOW 1°C/W WILL BE REQUIRED (SEE OPTIONAL EXTRAS)

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**SPECIFICATIONS** Signal Span minimum 0-2v dc AC input power (1 & 2) 18 to 24V ac @ 65mA Signal span maximum 0-25V dc Auxiliary output (5) 5Vdc @ 5mA protected Signal zero offset 0-30% of span Triac limiting RMS current 26A Signal input resistance  $5000 \text{ ohms} \pm 20\%$ AC line voltage +/- 10% @ 50/60 Hz 25v to 230V Manual potentiometer 2K, 5K or 10K Peak single cycle surge current 250A  $I^2$ t for fusing (10m sec)  $250 \text{ A}^2\text{s}$ Power consumption 1.7W Soft start time constant 0.06 sec/microfarad Max. Peak voltage 600V Isolation voltage 2500 Vrms Current rating 25A Max. Working temperature 65°C operational Storage temperature -20°C to +85°C

# **FUSING:**

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection and an appropriate fuse for unit supply (F1A). 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" . These phase angle controllers need a suitable remote filter. For information see recommendation section and contact our sales desk. (See Declaration of Conformity)

# **RECOMMENDATION**

Other documents available on request, which may be appropriate for your applications.

CODE **IDENTITY** DESCRIPTION X10229 RFI Filtering recommendation - 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 & Earthing requirements; Fusing recommendations. **COS** AP02/4 **UAL** Conditions of sale

<u>NOTE</u> 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: FC11AL/2 + Signal option.

Optional extras include: Potentiometer, Soft start capacitor, Supply trans former,

Heatsink assembly, Heatsink compound, Heatsink, Filter.

Note: When ordering the filter, the current the FC11AL/2 is to be used at will be required.



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