

X10260 – Universal Phase Angle Controller c/w Integral Power Device



INTRODUCTION

This single-phase firing module with a 26A triac, uses variable phase-angle control with adjustable signal matching and has a selectable soft-start option. The power supply transformer is remote for increased reliability and wide operational voltage capabilities. The FC11AL2 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). This is also suitable for some inductive loads such as transformers and full-wave vibrators, for inductive loads a suitable snubber network (0.1uF X rated 240v AC and a series 100R 2 Watt resistor) should be connected across the power terminals.

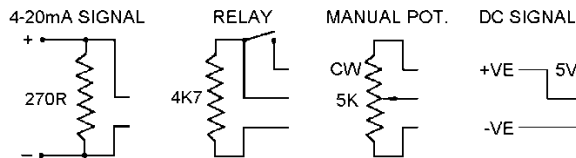
FEATURES

- Integrated 26A triac.
- Wide range of control signal inputs (voltage or current).
- Adjustable soft-start function.
- Status LED giving output level indication.
- Consumes less than 2W

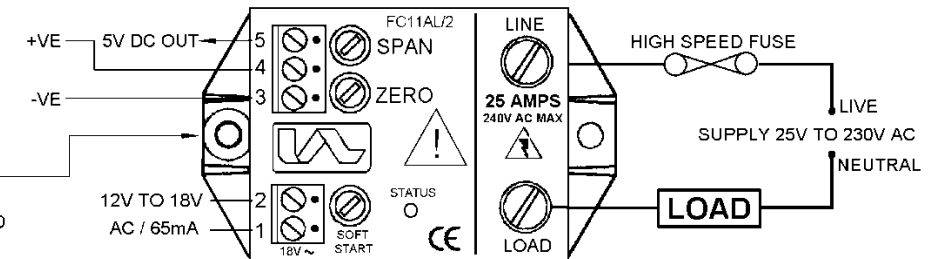


INSTALLATION Dimensions & Connections

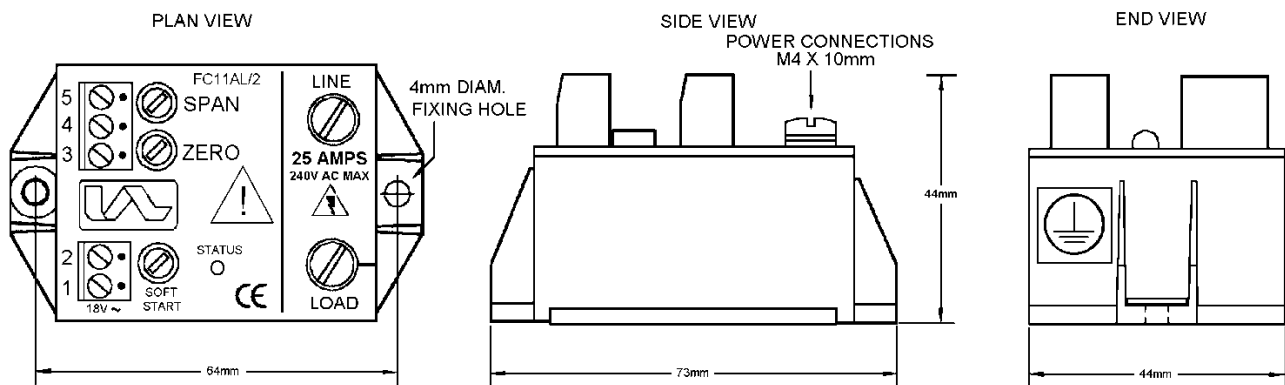
CONTROL OPTIONS FOR TERMINALS 3,4 AND 5



WARNING
THIS UNIT MUST BE EARTHED

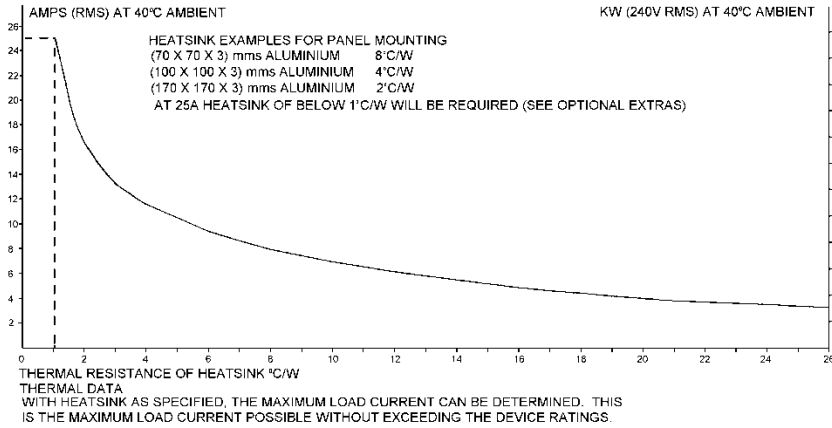


**ADJUSTABLE
SOFT START**



USE HEATSINK COMPOUND FOR EFFECTIVE THERMAL COUPLING
WARNING LIVE TERMINALS
SWITCH OFF MAINS SUPPLY BEFORE COMMENCING ANY SERVICE WORK

INSTALLATION Cooling Requirements



SPECIFICATIONS

| | | | |
|--------------------------|------------------|------------------------------------|---------------------|
| Signal span minimum | 1.5 to 5V dc | AC input power (1 & 2) | 12 to 18V ac @ 65mA |
| Signal span maximum | 5 to 25V dc | Auxiliary output (5) | 5V dc |
| Signal zero offset | 0-30% of span | Triac limiting RMS current | 26A |
| Signal input resistance | 5kΩ ± 20% | AC line voltage +/- 10% @ 50/60 Hz | 25 to 230V |
| Manual potentiometer | 2, 5 or 10kΩ | Peak single cycle surge current | 250A |
| I2t for fusing (10m sec) | 250A2s | Power consumption | 1.7W |
| Soft start time constant | 0-20 seconds | Max. Peak voltage | 600V |
| Isolation voltage | 2.5kV RMS | Current rating | 25A |
| Max. working temperature | 65°C operational | Storage temperature | 0°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 power-up some loads may need an increased factor of safety 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).

RECOMMENDATIONS

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, Earth requirements and fusing recommendations |
| X10378 | ILR | Inductive loads remedy sheet for use with Phase angle controllers |
| P01.1 | 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.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.



UNITED AUTOMATION LTD

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



ORDER CODE

State part number: **FC11AL/2** + Signal Option

Optional extras include: potentiometer, supply transformer, heatsink assembly, heatsink compound, heatsink, filter.

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



UNITED AUTOMATION LTD

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

