

# PHASE ANGLE ELECTRONIC HEAT SWITCH WITH RFI SUPPRESSION

QLC/TB-RFI

X10251

#### INTRODUCTION

These switched phase-angle power regulators are robust and compact units are ideal for controlling single/phase mains driven loads. The standard QLC units are for 230V supply, with a three position (and off) control switch with wiring connections to the plug-in five way terminal. The large triac enables the unit to handle high inrush current with ample safety margins on industrial installations. These units incorporate their own RFI filter which will aid product compliance when correctly installed.

#### **APPLICATIONS**

Suitable for quartz lamps, conventional resistive heating elements in single phase, series or parallel configurations to the specified voltage, current and temperature limits and inductive loads, for example, transformers and motors.

## **FEATURES**

- Integrated RFI network.
- Plug in power connector block.
- Single-hole fixing.
- Rugged and compact.
- Designed to maximise thermal dissipation.

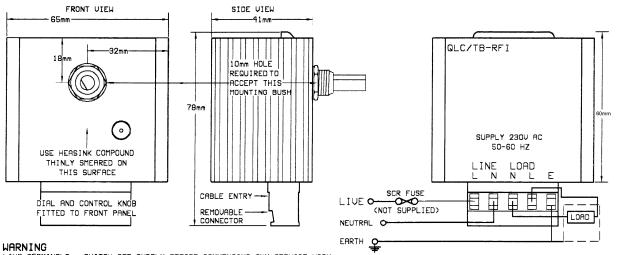




### INSTALLATION

DIMENSIONS, WIRING CONNECTIONS & OUTPUTS

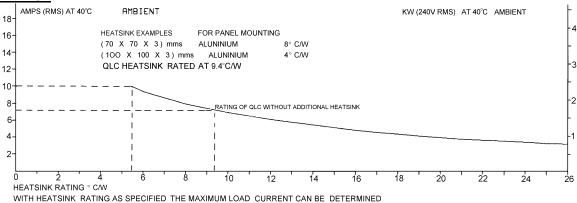
| POSITION | ac O/P LOADED VOLTS (rms typical) |
|----------|-----------------------------------|
| 0        | ZERO                              |
| 1        | 173                               |
| 2        | 193                               |
| 3        | SUPPLY                            |



LIVE TERMINALS - SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK NOTE

FOR HEATSINK PANEL MOUNTING A 10MM HOLE IS REQUIRED TO ACCEPT MOUNTING BUSH. HEATSINK COMPOUND MUST BE USED FOR EFFECTIVE THERMAL COUPLING.

#### **INSTALLATION**



#### SPECIFICATIONS AND DIMENSIONS

| Unit limiting rms on state current      | 15A           | Maximum forward voltage drop at 15A        | 1.5V                |
|---|---------------|--|---------------------|
| Triac limiting rms on state current     | 25A           | Peak one cycle surge @ (10ms)              | 320A                |
| Mains supply, tolerance, within 10%     | 230V ac       | I <sup>2</sup> t limiting value for fusing | 112A <sup>2</sup> s |
| Isolation voltage                       | 2.5kV rms     | Mains frequency                            | 50/60Hz             |
| Max recommended operational temperature | 65°C          | Max. recommended storage temperature       | 65°C                |
| Dimensions approximate                  |               |  |                     |
| Shaft diameter                          | 6.3 mm (1/4") | Bush length                                | 5 mm                |
| Shaft projection from bush              | 30 mm         | Fixing hole diameter                       | 10mm                |

#### **FUSING**

It is recommended to use semiconductor (fast-acting) type fuses or circuit breakers (semiconductor - MCB) for protection. On initial use some loads may need an increased factor of safety for unit and/or device protection (see SRA data sheet for further information).

#### **CE MARKING**

This product family carries a CE mark and incorporates a built-in 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: -

THIS IS THE MAXIMUM LOAD CURRENT POSSIBLE WITHOUT EXCEEDING THE DEVICE RATINGS

| CODE   | IDENTITY | DESCRIPTION  |
|--------|----------|--|
| X10229 | RFI      | Single 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 and fusing recommendations. |
| 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.

ORDER CODE: State part number: QLC-RFI-TB (Other voltage inputs and outputs available)

Optional extras include: knob, dial, heatsink compound.



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