



# VARIABLE AC REGULATOR WITH RFI SUPPRESSION

**QVR-TB-RFI  
QVR/s-TB-RFI**

**X10250**

## INTRODUCTION

These variable phase angle power regulators are robust and compact units for controlling single phase mains driven loads. They give fully adjustable voltage output from 0-98% and the large triac enables the unit to handle high inrush currents with ample safety margin on industrial installations. These units incorporate their own RFI filter network to comply with EMC Regulations (Class A).

## APPLICATIONS

These would be suitable for most quartz lamps and conventional resistive heating elements. They may be connected in series or parallel configurations. Applications including ovens, moulders, dryers and some inductive loads, for example transformers and motors.

## FEATURES

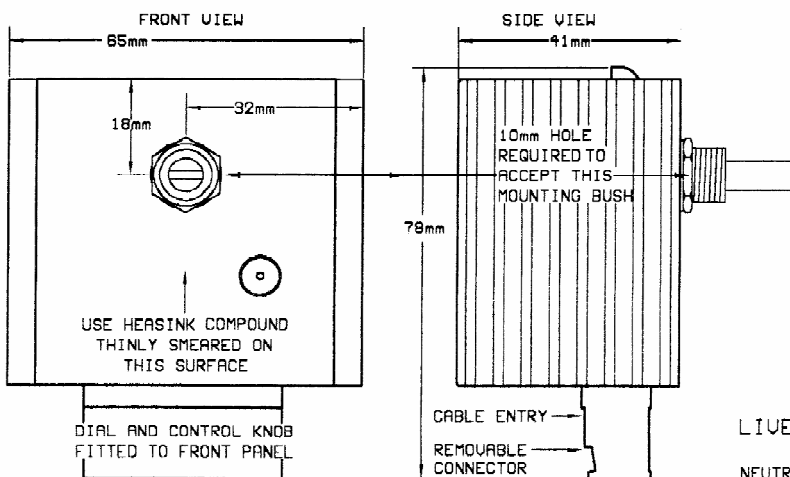
- Integral RFI network.
- ON/OFF switched version (QVR/s)
- Plug-in power connector block.
- Single hole mounting.
- Rugged and compact
- Designed to maximise thermal dissipation



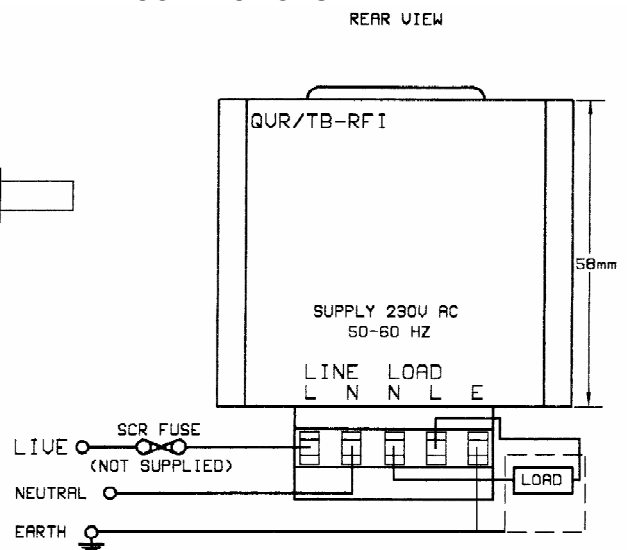
RoHS Compliant  
Directive  
2002/95/EC

## INSTALLATION

### DIMENSIONS



### CONNECTIONS



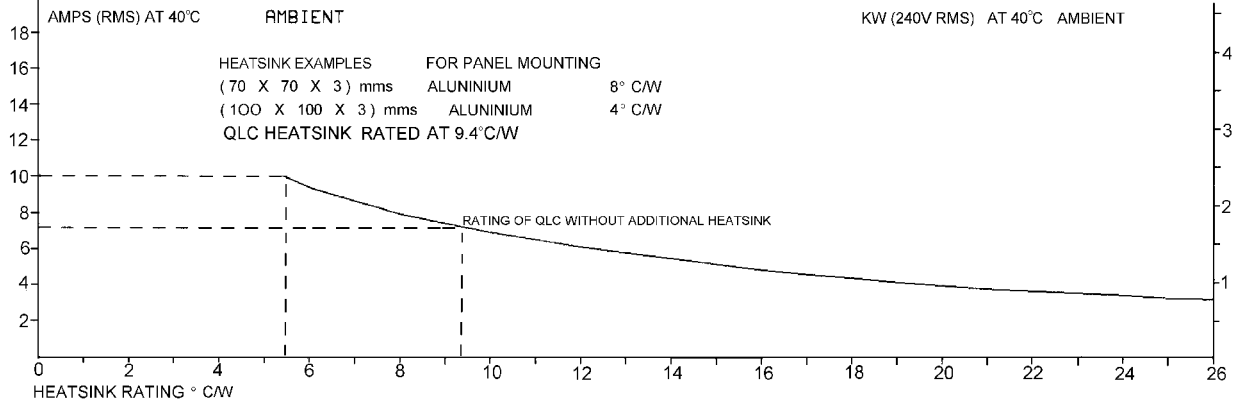
### **WARNING**

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



WITH HEATSINK RATING AS SPECIFIED THE MAXIMUM LOAD CURRENT CAN BE DETERMINED  
THIS IS THE MAXIMUM LOAD CURRENT POSSIBLE WITHOUT EXCEEDING THE DEVICE RATINGS

## SPECIFICATIONS

Triac limiting RMS. On state cycle	25A	Isolation voltage	2500V rms
Peak one cycle surge @ (10ms)	320A	I <sup>2</sup> t limiting value for fusing	112A <sup>2</sup> s
Min operating current	200mA	Unit limiting RMS. On state current	15A
Max forward volts drop at 10A	1.5V	Mains supply tolerance, +/- 10%	230V or 110V ac
Max load at 20°C ambient (without extra heatsink)	10A	Mains frequency	50/60Hz
Max unit operating temperature	65°C	Unit storage temperature range	0 TO +65°C

<b>Further dimensions</b>			
Shaft diameter	6.3mm	Shaft projection from bush	12mm (QVR) & 8mm (QVR/s)
Bush length (QVR & QVR/s)	7mm	Fixing hole diameter	10mm

## FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor-MCB) 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" mark and incorporates a filter (Standard type to emission levels BS EN 55022 Class A - Industrial) to address the EMC directive. 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	Single Phase Filtering recommendations - addressing EMC Directive
X10213	ITA	Interaction, uses for phase angle and for burst fire control.
X10255	SRA (LVD)	Safety requirements - addressing the Low Voltage Directive 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:** Non switched QVR-TB-RFI + (Supply voltage)  
**State part number:** Switched QVR/s-TB-RFI + (Supply voltage)  
**Optional extras include:** Knob, Dial, Heatsink compound.



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Page No. 2 of 2 Issue 3

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