



Voltage Regulators keep the voltages from a power supply within a range that is compatible with the other electrical components. The variable regulators for quartz lamps are to control and stabilize the voltage supplied to the lamps. Phase-angle regulators are utilized in electrical power distribution systems to correct the phase angle difference between two parallel connected electrical transmission systems and thereby control the power flow between the two systems so that each can be loaded to its maximum capacity.

These variable phase angle powerful pluggable terminal block (TB) regulators are robust, compact, and enclosed units for 230V or 110V up to 15A single phase mains driven loads. They give fully adjustable voltage outputs from zero to maximum. The large triac enables the unit to handle high inrush currents with ample safety margin on industrial installations. An adhesive backed silver label and hairline knob are optional extras for front panel mounting.

QVR – Non-Switched Potentiometer, **QVR/S** – Switched Potentiometer, **QLC** – 4-Position Switch Potentiometer

APPLICATIONS

- Ovens
- Fish & Chips
- Restaurant's
- Hospitality
- Quartz Lamps / Heat Lamps
- Moulders
- Dryers and
- Some inductive loads,
- for example transformers and motors

FEATURES

- Variable 0-98% Output
- On/Off Switched version (QVR's)
- Single Hole Fixing
- Robust and Compact
- Triac for Inrush Protection

TECHNICAL SPECIFICATIONS

Specifications	TB RFI	RFI
Maximum RMS on-state current	15A	17A
Minimum Operating Current	200mA	
Triac Limiting RMS on state Current	26A	
Peak one cycle surge @ 20mS	250A	
I ² t for fusing	112A ² s	
Isolation voltage	2500V rms	
Maximum recommended unit temperature	65°	
Maximum cable temperature	105°C	
Maximum recommended unit load at 20°C ambient, (without extra heatsink)	10A	
Maximum recommended unit load at 40°C ambient, (without extra heatsink)	5A	
Mains supply +/-10%	110V or 230VAC	
Mains Frequency	50/60Hz	
Unit storage temperature range	0° to +65°	-20° to +85°
Further Dimensions		
Shaft diameter	6.3mm	
Bush length	7mm (QVR, QVR/S) & 5mm (QLC)	



Shaft projection from bush	12mm (QVR), 8mm (QVR/S) & 30mm (QLC)
Fixing hole diameter	10mm



TB RFI Regulator

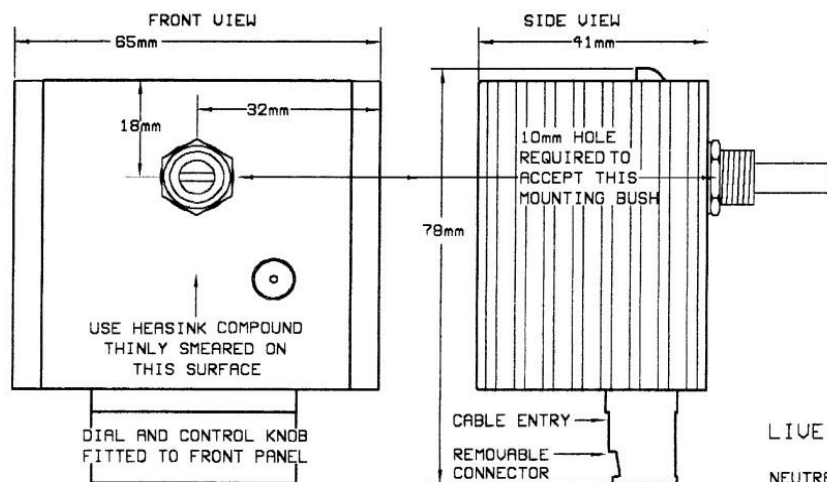


RFI Regulator

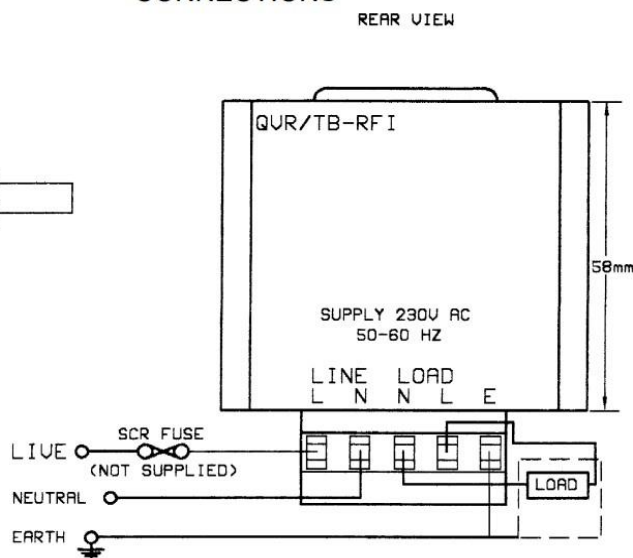
INSTALLATION

Dimensions & Connections for TB RFI

DIMENSIONS



CONNECTIONS



WARNING

LIVE TERMINALS - SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK

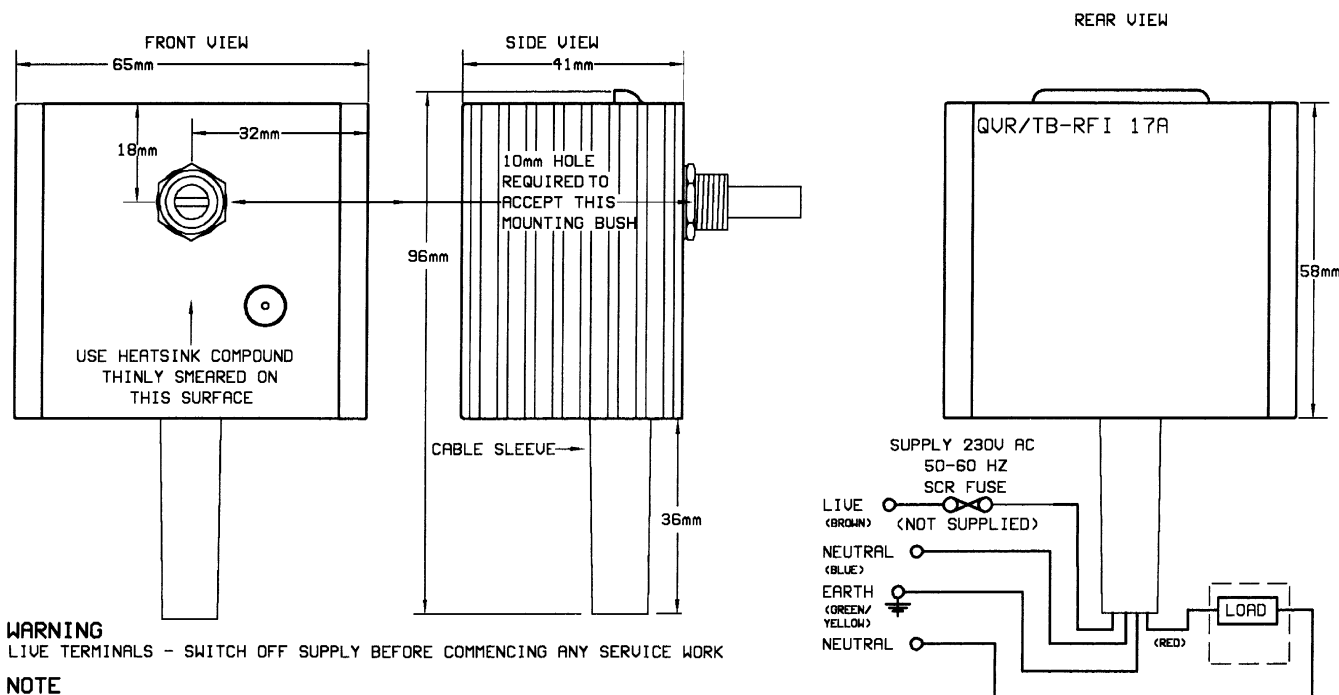
NOTE

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

INSTALLATION Cont. Stainless Steel typically 15 times less thermally conductive and mild Steel is typically 5 times less thermally conductive.

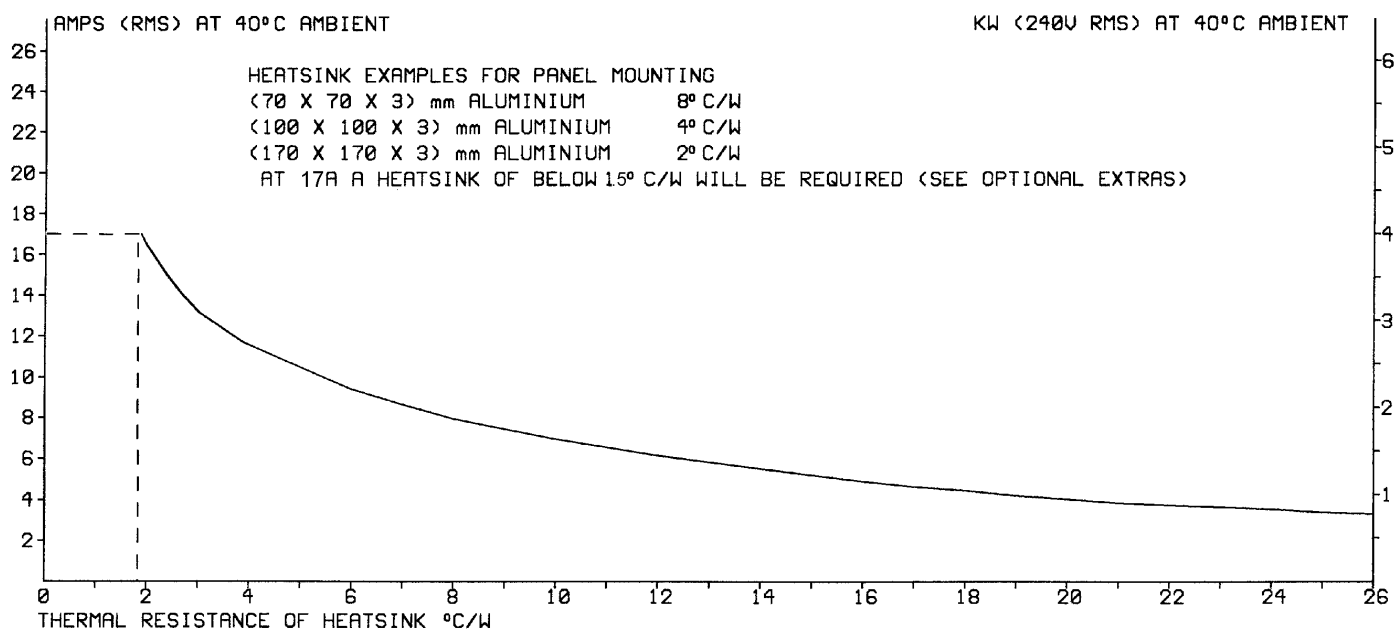


Dimensions & Connections for RFI



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.



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



Variable AC Regulator with RFI Suppression

FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit 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 datasheet for information.

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, Earthing Requirements and Fusing Recommendations

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

OPTIONAL EXTRAS

Product Code	Product Description
N30001	Control Knob RN-113B SCI
L60011	DIAL QVR TYPE
L60012	DIAL QLC TYPE
Z01062	Heatsink Compound Syringe (Must be applied while fitting)

For 110 VAC

POSITION	AC O/P LOADED VOLTS (rms typical)
0	ZERO
1	80
2	90
3	SUPPLY

For 230 VAC

POSITION	AC O/P LOADED VOLTS (RMS typical)
0	ZERO
1	173
2	193
3	SUPPLY

PRODUCT CODE AND RELATED PRODUCT CODE

QVR	
Product Code	Product Description
A14118E	Quartz Lamp Phase Angle 15A 110v Regulator [QVR TB RFI]
A14231E	Quartz Lamp Phase Angle 15A 230v Regulator [QVR TB RFI]
A12217E	Quartz Lamp Phase Angle 17A 230v Regulator [QVR RFI]

QVR/S	
Product Code	Product Description
A14117E	Quartz Lamp Phase Angle 15A 110v Switched Regulator [QVR/S TB RFI]
A14232E	Quartz Lamp Phase Angle 15A 230v Switched Regulator [QVR/S TB RFI]
A13218E	Quartz Lamp Phase Angle 17A 230v Switched Regulator [QVR/S RFI]



Variable AC Regulator with RFI Suppression

<i>QLC</i>	
Product Code	Product Description
A11101E	Quartz Lamp Phase Angle 15A 110v AC3 Position Switched Regulator [QLC TB RFI]
A11200E	Quartz Lamp Phase Angle 15A 230v 3 Position Switched Regulator [QLC TB RFI]
A11215E	Quartz Lamp Phase Angle 17A 230v 3 Position Regulator [QLC RFI]

PRODUCT CODE AND RELATED PRODUCT CODE (UL APPROVED) – E319489

<i>QVR</i>	
Product Code	Product Description
A14133	Quartz Lamp Phase Angle 15A 120v Regulator [QVR-RFI-TB-(UL)]
A14233	Quartz Lamp Phase Angle 15A 230v Regulator [QVR-RFI-TB-(UL)]