#### X10250 Commercial Catering Equipment | Catering Heater Controller



# QVR-QVR/S-QLC

RFI Suppression with 15A, 17A, 110v & 230v Variable AC Regulator

CONTACT US: ♥ 0044 (0) 1704-516 501 ⊠ enquiries@united-automation.com ♥ www.united-automation.com



#### **KEY FEATURES:**

- ✓ Adjustable output from 0 to 98% for precise voltage control
- ✓ Available in non-switched (QVR), switched (QVR/S), and 4-position switch (QLC) potentiometer options.
- $\checkmark$  Single hole fixing for easy installation.
- Robust and compact design ensures durability.
- Equipped with a large triac for inrush protection.
- ✓ Suitable for both 230V and 110V singlephase mains-driven loads

#### **APPLICATIONS:**

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

#### VARIANTS:

- QVR Non-Switched Potentiometer
- QVR/S Switched Potentiometer
- QLC 4-Positioned Switch Potentiometer

Ensure stable power for your electrical systems with our Variable Phase Angle Regulators. Designed to regulate voltages and control power flow, these compact units are perfect for a variety of applications, including ovens, restaurants, and quartz lamps. With adjustable outputs and robust construction, they provide precise voltage control and can handle high inrush currents with ease. Optional features like on/off switches and adhesive labels make installation a breeze.

Enhance the performance and reliability of your electrical systems with our Variable Phase Angle Regulators. Whether you need precise voltage control for commercial kitchens or industrial equipment, our regulators deliver exceptional performance and durability.

#### **TECHNICAL SPECIFICATIONS**

Specifications	TB RFI <sup>**</sup>	RFI
Maximum RMS <sup>*</sup> on-state current	15A	17A
Minimum Operating Current	200m	۱A
Triac Limiting RMS on state Current	26A	١
Peak one cycle surge @ 20mS	250A	
I <sup>2</sup> t for fusing	112A <sup>2</sup> 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	Unit storage temperature range 0° to +65° -20° to +85	
Further Dimens	sions	
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	Fixing hole diameter 10mm	

\*RMS = Root Mean Square

\*\*TB RFI= Terminal Block Radio Frequency Interference



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# QVR - QVR/S - QLC

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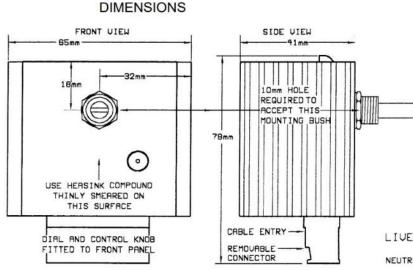


TB RFI Regulator



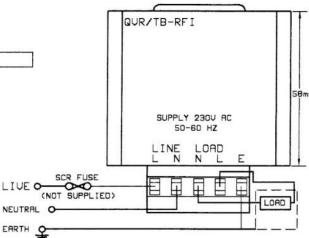
**RFI Regulator** 

# INSTALLATION **DIMENSIONS & CONNECTIONS FOR TB RFI**



CONNECTIONS





LIVE TERMINALS - SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK

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



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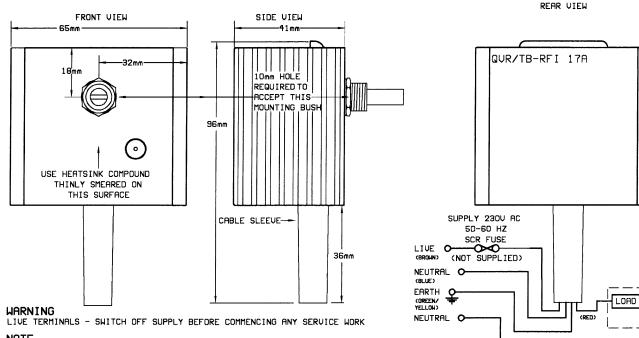
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# QVR - QVR/S - QLC

RFI Suppression with 15A, 17A, 110v & 230v

Variable AC Regulator

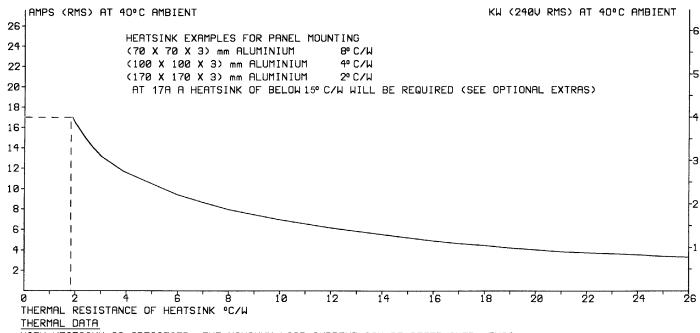
### DIMENSIONS & CONNECTIONS FOR RFI



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.



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





58mm

# QVR - QVR/S - QLC

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## SWITCHED CONFIGURATION (ONLY FOR QLC)

	For 110 VAC		For 230 VAC
POSITION	AC O/P LOADED VOLTS (RMS typical)	POSITION AC O/P LOADED VOLTS (RMS typica	
0	ZERO	0	ZERO
1	80	1	173
2	90	2	193
3	SUPPLY	3	SUPPLY

## RECOMMENDATIONS

### **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.

## DOCUMENTS

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)



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#### 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]

	QLC
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 CERTIFIED MARK) – E319489

QVR	
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)]



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