### **Commercial Catering Equipment | Catering Heater Controller**

# QVR-QVR/S-QLC

High Surge with 17A, 230V Variable AC Regulator

#### **CONTACT US:**

- © 0044 (0) 1704-516 501
- □ enquiries@united-automation.com
- www.united-automation.com



#### **KEY FEATURES:**

- Versatile Voltage Control: These variable phase-angle regulators are robust, compact, and enclosed units designed for 230V up to 17A single-phase mains-driven loads. Enjoy fully adjustable voltage outputs ranging from 0-98%, catering to diverse applications.
- High Inrush Current Handling: The inclusion of a large TRIAC ensures the unit can expertly manage high inrush currents, providing a safety margin crucial for industrial installations.
- **Optional Extras for Front Panel** Mounting: Customize your setup with optional adhesive-backed silver labels and hairline knobs, simplifying front panel mounting for a streamlined appearance.

# **APPLICATIONS:**

Ideal for a diverse range of applications, including:

- Ovens
- Fish & Chips Fryers
- > Restaurants
- Hospitality Industry
- Quartz Lamps / Heat Lamps
- Moulder Machines
- **Dryers**
- Some Inductive Loads, e.g., Transformers and Motors.

### **VARIANTS:**

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

Discover unparalleled power control with our Voltage Regulators, meticulously designed to maintain voltage stability within a compatible range for your electrical components. Specifically crafted variable regulators for quartz lamps ensure precise control and stabilization of voltage supplied to lamps, optimizing performance in various applications.

Phase-Angle Regulators for Power Distribution Efficiency: In electrical power distribution systems, our phase-angle regulators shine. Correcting phase angle differences between parallelconnected electrical transmission systems, they expertly manage power flow. This ensures that each system operates at its maximum capacity, enhancing overall efficiency.

**Guard Against Surges with High Surge Option:** Experience ultimate protection with our regulators. A High Surge, a transient wave of current, voltage, or power, is effectively managed by our regulators, providing a robust defence in power systems. Safeguard your equipment against sub-cycle overvoltages with a duration of less than a half-cycle of the normal voltage waveform.

### **TECHNICAL SPECIFICATIONS**

Maximum RMS on-state current	17A
Minimum Operating Current	200mA
Triac Limiting RMS on state Current	41A
Peak one cycle surge @ 20mS	400A
I²t for fusing	112A²s
Isolation voltage	2500V rms
Maximum recommended unit temperature	70°C
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%	230VAC
Mains Frequency	50/60Hz

<sup>\*</sup>RMS = Root Mean Square

### YOU MUST READ THIS BEFORE INSTALLATION



**ELECTRICAL SAFETY** 

WARNING: RISK OF ELECTRIC SHOCK Always consult the Installation & Maintenance Instructions before connecting this product to the power supply WARNING: Disconnect Power Before Servicing Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals.



the relevant electrical standards and

installation practices.

a competent, qualified installer familiar with



USER RESTRICTIONS

WARNING: Not for Use by Vulnerable Individuals This product is not intended for use by persons (including children) with reduced physical, sensor mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.

USAGE ENVIRONMENT

WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household

HOT SURFACE WARNING

WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

More Info: https://united-automation.com/general-product-safety-regulation-gpsr/

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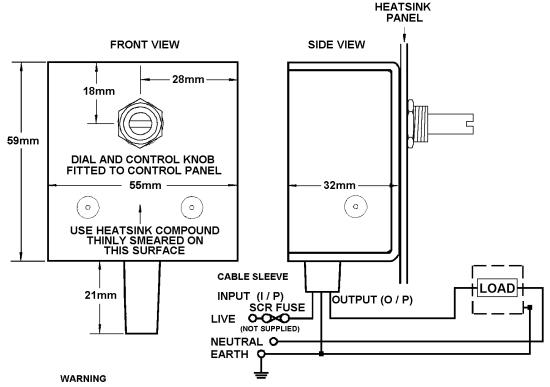
1 July 2025 | Issue: 12 | Page 1 of 3

# VR – QVR/S – QLC

High Surge with 17A, 230V

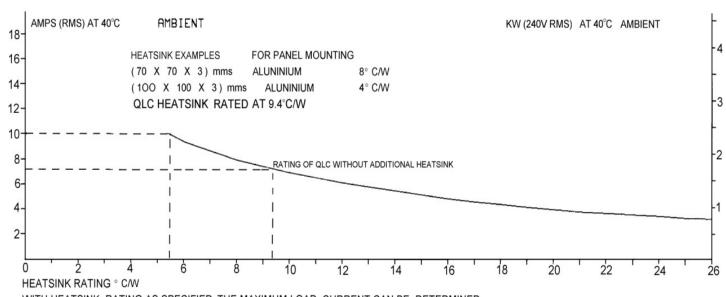
Variable AC Regulator

# INSTALLATION **DIMENSIONS & CONNECTIONS**



LIVE TERMINALS - SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK NOTE FOR HEATSINK PANEL MOUNTING: A 10mm HOLE IS REQUIRED TO ACCEPT MOUNTING BUSH USE HEATSINK COMPOUND 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 RATING AS SPECIFIED THE MAXIMUM LOAD CURRENT CAN BE DETERMINED THIS IS THE MAXIMUM LOAD CURRENT POSSIBLE WITHOUT EXCEEDING THE DEVICE RATINGS



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# QVR - QVR/S - QLC

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Variable AC Regulator

# SWITCHED CONFIGURATION (ONLY FOR QLC)

For 230 VAC	
POSITION	AC O/P LOADED VOLTS (RMS typical)
0	ZERO
1	173
2	193
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.

# <u>OPTIONAL EXTRAS</u>

<b>Product Code</b>	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)

### PRODUCT CODE AND RELATED PRODUCT CODE

QVR	
<b>Product Code</b>	Product Description
A12204E	Quartz Lamp Phase Angle 17A 230V High Surge Regulator

QVR/S	
<b>Product Code</b>	Product Description
A13205E	Quartz Lamp Phase Angle 17A 230V High Surge Switched Regulator

QLC	
<b>Product Code</b>	Product Description
A11206E	Quartz Lamp Phase Angle 17A 230V High Surge 4 Position Switched Regulator



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