

X10212 – BVR-25

25A Variable Burst Fired AC Regulator

Issue 7



1 Introduction

The BVR-25 series is a powerful OEM 25A ac energy regulator for proportional linear manual control of resistive loads using burst fire control – this is principally variable on/off bursts of complete main cycles of energy, coincident with mains zero crossover. A 50% on/off setting with a light bulb as a load would show even on/off flashes. The output is in block bursts, with a full 0 to 100% range. The output block lengths can be varied from a rapid burst fire mode to a variable duty cycle range of 1-30 seconds.

The unit comprises of a high current triac (power device) mounted on an integral heatsink controlled by a populated PCB with fuse and connection terminals, all enclosed, for simple connection, maintenance and installation.

2 Applications

Virtually all resistance heaters including ovens, electric furnaces, moulders, dryers, smelters, heating tapes, stress relieving, space heating and heating mantles. Not suitable for use on lighting and inductive loads.

3 Features

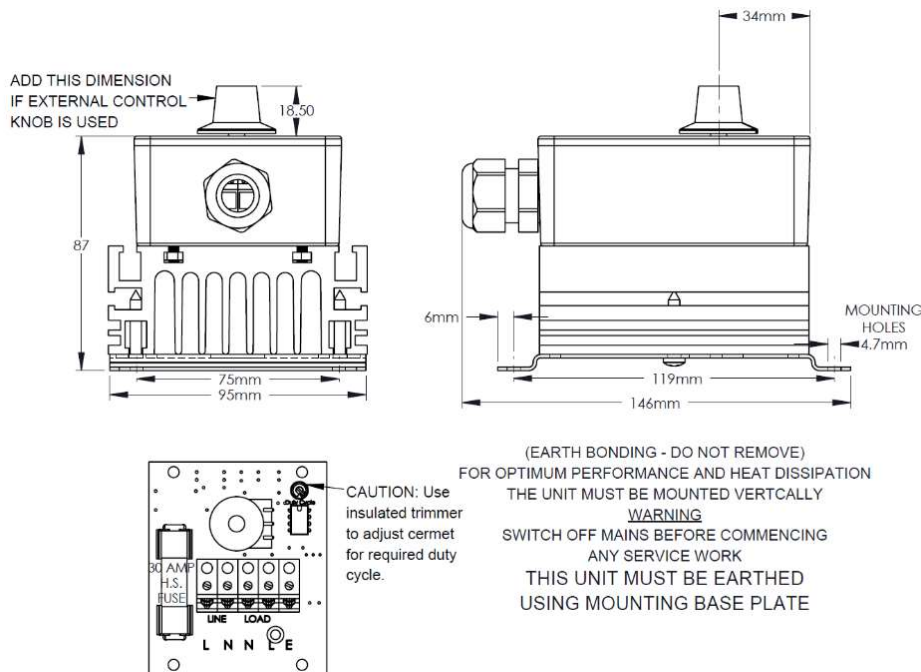
- Integrated high-speed fuse
- Built-in heatsink & mounting plate
- Radio Frequency Interference (RFI) free
- Single-entry cable gland
- Control knob and dial supplied
- 110V or 230V models available
- Variable Duty cycle range 1-30s
- (adjustable by duty cycle trimmer)
- Rapid burst fire mode (duty cycle trimmer)
- Fully anti-clockwise



Photo shows complete unit with open lid

4 Installation

4.1 Fixing/Mounting/Dimensions



UNITED AUTOMATION LTD

Southport Business Park
Wight Moss Way
Southport, PR8 4HQ
ENGLAND

Tel: 0044 (0) 1704 – 516500
enquiries@united-automation.com
www.united-automation.com

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5 Technical Specifications

Mains voltage	110 or 230V AC \pm 10%	Min. load current	200mA
Frequency	50-60Hz	Isolation voltage	2500V rms
Max. rms load current	25A	I²t for SCR fusing	250A ²
Integral Triac	41A (600v)	Replacement fuse	30A 660V SCR type
Main control signal	220k Ω potentiometer	Offstate dv/dt	500V/ μ s
Peak cycle surge	250A	Max operating temp.	65°C
Heatsink	1.3°C/W	Storage temp.	0°C to 65°C
Isolation classification	Class II	Max. cable entry	2.5mm ²

6 Fusing

A semiconductor (fast-acting) type fuse (stock code F11307) is supplied as standard 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. For spares or replacements contact our sales desk

7 CE Marking

This product family carries a "CE" marking and incorporates a filter. For more information see recommendations section and contact our sales desk, see Declaration of Conformity.

8 Recommendations & Safety Requirements

Other documents available on request, which may be appropriate for your application:

Code	Identity	Description
X10229	RFI	Filtering 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
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.

9 Order Code

State Part Number	For 110V AC supply – BVR1-25A – 110V, 25A For 230V AC supply – BVR2-25A – 230V, 25A Includes control knob, BVR dial & 65mm long potentiometer spindle (cut to suit)
Spares	F11307 – 30A, 660V HS (SCR type) ferrule fuse (\varnothing 10mm x 38mm long)



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