X10212 Variable AC Voltage Regulators

BVR-25 series

25A - 110 / 230V AC Variable Burst Fired AC Regulator

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KEY FEATURES:

- Integrated High-Speed Fuse: Ensures reliable protection and operation.
- **Built-In Heatsink & Mounting** Plate: Facilitates efficient heat dissipation and easy installation.
- **Radio Frequency** Interference (RFI) Free: Delivers clean, interferencefree operation.
- Single-Entry Cable Gland: Simplifies wiring and installation.
- **Control Knob and Dial** Supplied: Provides userfriendly control.
- 110V or 230V Models Available: Versatile voltage options for various applications.
- Variable Duty Cycle Range 1-30s: Adjustable by duty cycle trimmer for precise control.
- **Rapid Burst Fire Mode:** Achievable with duty cycle trimmer fully anti-clockwise.

APPLICATIONS:

The BVR-25 series is ideal for a wide array of resistance heaters including: ovens, electric furnaces, moulders, dryers, smelters, heating tapes, stress-relieving equipment, space heating, and heating mantles. Please note, this unit is not

suitable for lighting and inductive loads.

YOU MUST READ THIS BEFORE INSTALLATION

A 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



WARNING: Installation by Qualified INSTALLATION REQUIREMENTS Personnel Only

This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.





Introducing the BVR-25 series, a robust OEM 25A AC energy regulator designed for precise proportional linear manual control of resistive loads.

Utilising burst fire control, this advanced regulator delivers variable on/off bursts of complete main cycles of energy, aligned with mains zero crossover. Achieving a full 0 to 100% output range, the BVR-25 allows for block bursts with adjustable block lengths, ranging from rapid burst fire mode to a variable duty cycle of 1 to 30 seconds.

The BVR-25 series combines high performance and ease of use, making it a preferred choice for controlling resistive loads in industrial and commercial settings.

TECHNICAL SPECIFICATIONS

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

 (\mathcal{A}) USER RESTRICTIONS

WARNING: Not for Use by Vulnerable Individuals This product is not intended for use by persons (including children) with reduced physical, sensory or 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 use

HOT SURFACE WARNING <u>/ss</u>

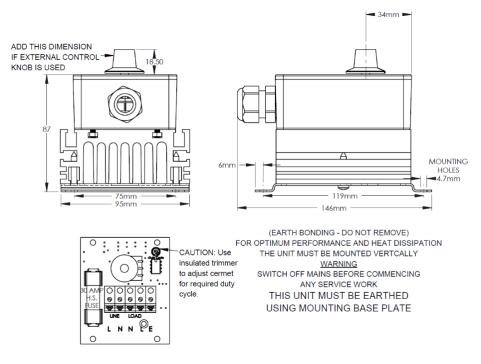
WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions

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INSTALLATION - DIMENSIONS & CONNECTIONS



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.

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.

RECOMMENDATIONS

DOCUMENTS

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

Code	Identity	Description
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

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
F11307	Fuse, 30A, 660V HS (SCR type) ferrule fuse (Ø 10mm x 38mm long)
L60015	Dial Type
	AND RELATED PRODUCT CODE
Product Code	Product Description
A28211	BVR-25 series 25A 230VAC Burst Firing AC Regulator



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