



# BURST FIRED AC ENERGY REGULATOR 110 to 240V @ 13A max

**BFM-240-13**  
X10638

### INTRODUCTION

The BFM-240-13 is a dual voltage, 13A maximum capability enclosed and compact energy regulator. It provides manual proportional power control to resistive loads by using variable bursts of energy. The burst firing circuit provides trigger pulses coincident with the mains polarity crossover, ensuring complete sine wave cycles are passed through to the resistive load. This prevents fast changes in load current and inhibits radio frequency interference (RFI), which is normally associated with switches, relays and phase angle fired triacs or similar devices. The output is in block bursts, with a full 0 to 100% range.

### APPLICATIONS

Virtually all resistive heating loads including ovens, furnaces, hot plates, extruders, moulders, space heating, boilers, dryers, soldering pots and irons, heating tapes, stress relieving, smelters and heating mantles.

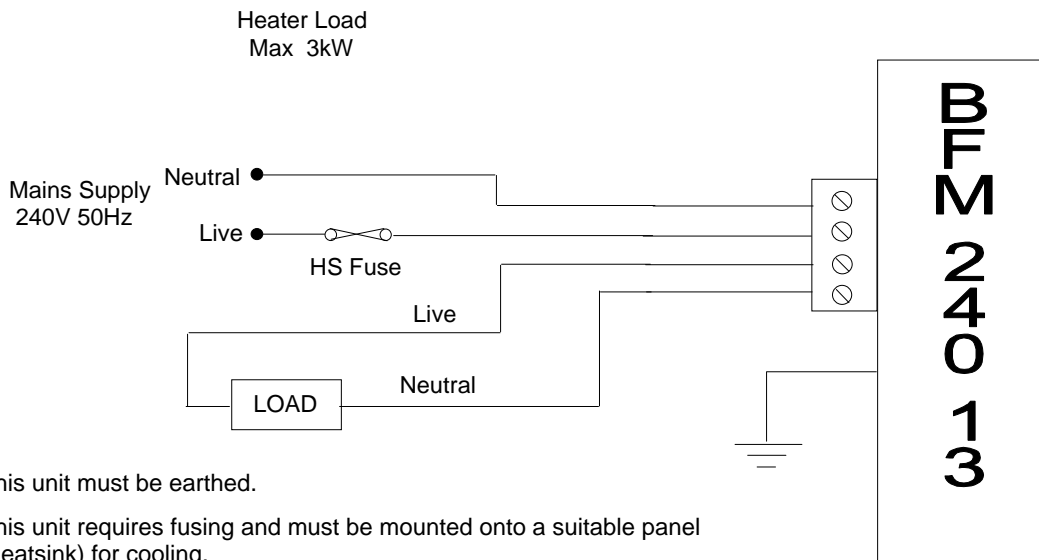
### FEATURES

- Input voltage range 110V to 250V AC
- Load rating (resistive) from 0.1 to 3.0kW @ 230V  
0.1 to 1.4kW @ 110V
- High surge 15A power device
- Zero Voltage Switching (ZVS) control (no remote filter required)
- Supplied complete with hairline knob and dial



### INSTALLATION

#### CONNECTIONS

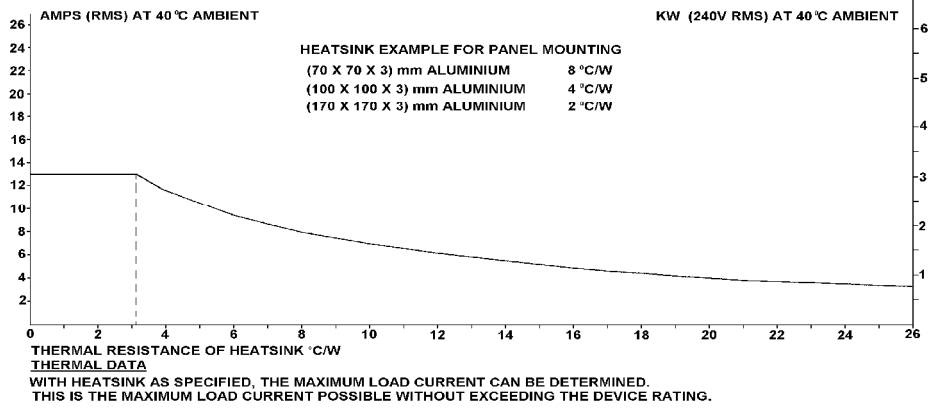


#### WARNING

1. This unit must be earthed.
2. This unit requires fusing and must be mounted onto a suitable panel (heatsink) for cooling.
3. HAZARDOUS LIVE terminals - isolate supply before commencing any installation work.

## INSTALLATION

## COOLING REQUIREMENTS



## SPECIFICATIONS

Maximum RMS on-state current	13A	I <sup>2</sup> t for fusing	110 A <sup>2</sup> s
Peak one cycle surge current	200A	Weight (approx)	75g
AC Supply voltage range @ 50/60Hz	110V to 250V	Maximum c.s.a. cable entry	2.5mm <sup>2</sup>
		<b>Dimensions</b>	
Maximum peak repetitive voltage	600V	Shaft diameter (1/4 inch)	6.3mm
Maximum Power consumption	6W	Shaft projection from bush	13mm
Operating and storage temperature range	0 to +65°C	Bush length	7mm
Isolation voltage	2500V rms	Fixing hole diameter	10mm
		Dimensions	65mm (H) x 44mm (W) x 65mm (D)

## 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 further information)

## CE MARKING

This product family carries a "CE marking". For information see recommendation section and contact our sales desk. (See Declaration of Conformity)

## RECOMMENDATION

Other documents available on request, which may be appropriate for your applications.

CODE	IDENTITY	DESCRIPTION
X10229	RFI	Filtering recommendation - addressing 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; Fusing recommendations.
AP02/4	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.E. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. (For International standards refer to I.E.C directive IEC 950)

## ORDERING

State product description

**BFM-240-13**

OPTIONAL EXTRAS:

additional ( ZVS) Dial, Hairline control knob available as spares  
Heatsink compound (thermal bonding paste).



## UNITED AUTOMATION LIMITED

1 Southport Business Park  
Kew  
Southport, PR8 4HQ  
ENGLAND

Tel: 0044 (0) 1704 – 516500 Main  
Tel: 0044 (0) 1704 – 516516 Sales  
Fax: 0044 (0) 1704 – 516501  
Enquiry@united-automation.com  
www.united-automation.com

Page No. 2 of 2 Issue 3

Date 30/03/05

