

X10249

Variable AC Voltage Regulators

ZVS 16DV

110 / 230V AC

Burst Fired AC Energy Regulator



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KEY FEATURES:

- ✓ **Wide Input Voltage Range:**
Compatible with 110V to 230V AC, accommodating various applications.
- ✓ **Load Rating:** Supports resistive loads from 0.1 to 3.7kW at 230V and 0.1 to 1.8kW at 110V AC.
- ✓ **High Surge Capacity:** A 25A power device is equipped to handle high surge currents.
- ✓ **Zero Voltage Switching:**
Eliminates the need for remote filters, enhancing reliability and reducing RFI.
- ✓ **Durable Connections:**
Features wire protective screw fixing terminal block connections for secure and reliable installation.
- ✓ **Adjustable Duty Cycle:**
Variable duty cycle range of 1-30 seconds, adjustable via a trimmer at the rear of the unit.

APPLICATIONS:

Ideal for a diverse range of applications, including:

- Ovens
- Fish & Chips Fryers
- Restaurants
- Hospitality Equipment
- Quartz Lamps / Heat Lamps
- Moulding Machines
- Dryers
- Inductive Loads such as Transformers and Motors

The **ZVS 16DV** is a versatile, dual voltage, 16A energy regulator designed to provide precise manual proportional power control to resistive loads. Encased in a compact and robust enclosure, this energy regulator is ideal for a variety of applications, delivering exceptional performance and reliability.

Using variable bursts of energy, the ZVS 16DV's burst firing circuit ensures trigger pulses are synchronised with the mains polarity crossover. This technique ensures complete sine wave cycles are transmitted to the resistive load, preventing rapid changes in load current and minimising radio frequency interference (RFI).

The regulator offers a full 0 to 100% output range, with adjustable block lengths for a rapid burst fire mode or a variable duty cycle range of 1-30 seconds.

TECHNICAL SPECIFICATIONS

Maximum rms on-state current	16A
Peak one-cycle surge current	200A
AC supply voltage range @ 50/60 Hz	100-250V
I ^{2t} for fusing	128 A ² s
Weight (approx.)	105g
Maximum CSA cable entry	2.5mm ²
Maximum peak repetitive voltage	600V
Maximum power consumption	6W
Maximum recommended unit temperature	70°C
Isolation voltage	2.5kV rms
Further dimensions	
Shaft diameter (1/4 inch)	6.3mm
Shaft projection from bush	13mm
Bush length	7mm
Fixing hole diameter	10mm

YOU MUST READ THIS BEFORE INSTALLATION

 ELECTRICAL SAFETY	 INSTALLATION REQUIREMENTS	 USER RESTRICTIONS	 USAGE ENVIRONMENT	 HOT SURFACE WARNING
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 Personnel Only This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.	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.	WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household use.	WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

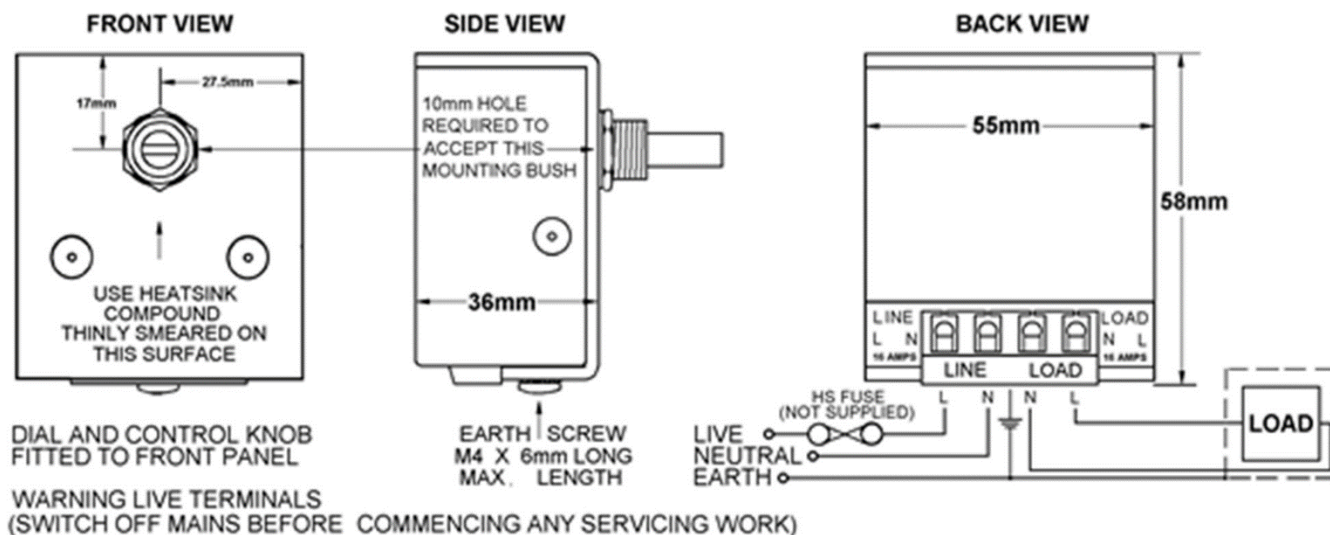
ZVS 16DV

110 / 230V AC

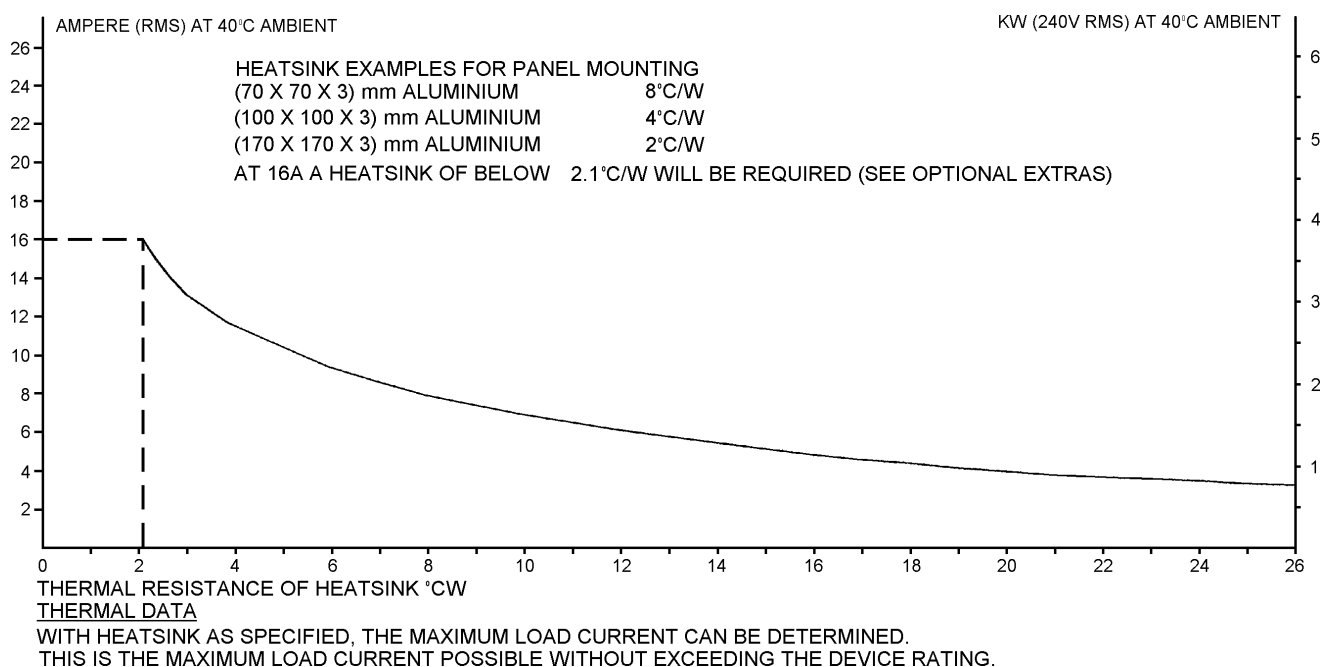
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INSTALLATION

DIMENSIONS & CONNECTIONS



Cooling Requirements



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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
L60016	ZVS DIAL
Z01062	Heatsink Compound Syringe (Must be applied while fitting)

*Note: When ordering a filter, the current at which the CSR is to be used at will be required.

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A23212	ZVS-16DV Compact Phase Angle AC Regulator