

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.

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 synchronized 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 minimizing 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 |
| Further dimensions | |
| Maximum peak repetitive voltage | 600V |
| Maximum power consumption | 6W |
| Operating and storage temperature range | 0 to +85°C |
| Isolation voltage | 2.5kV rms |
| Shaft diameter (1/4 inch) | 6.3mm |
| Shaft projection from bush | 13mm |
| Bush length | 7mm |
| Fixing hole diameter | 10mm |

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



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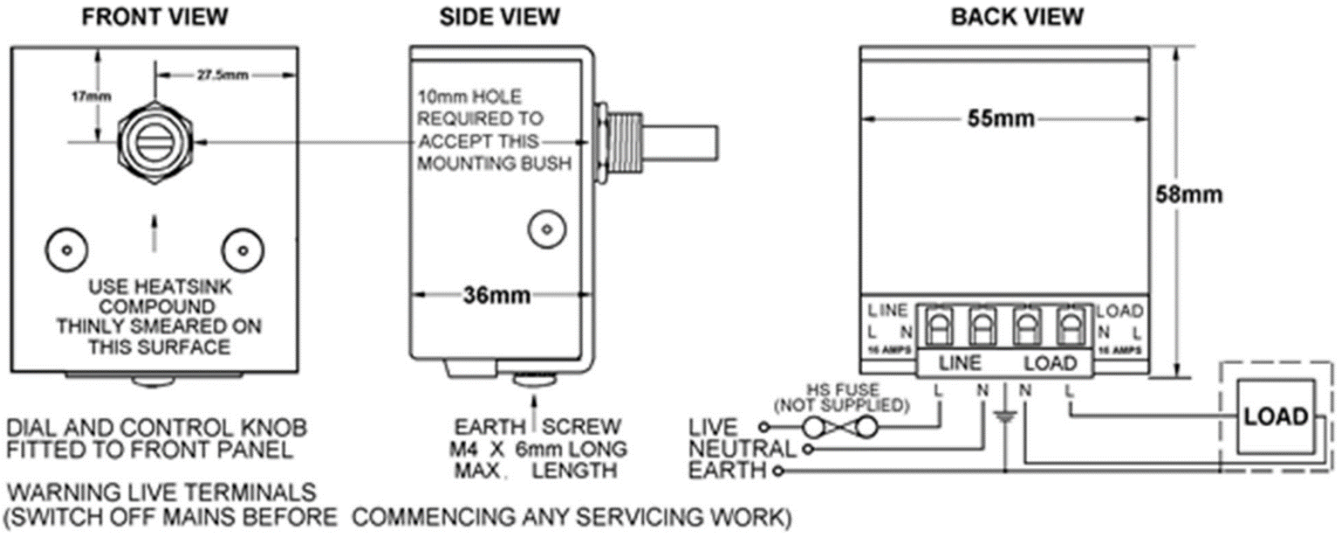
ZVS 16DV

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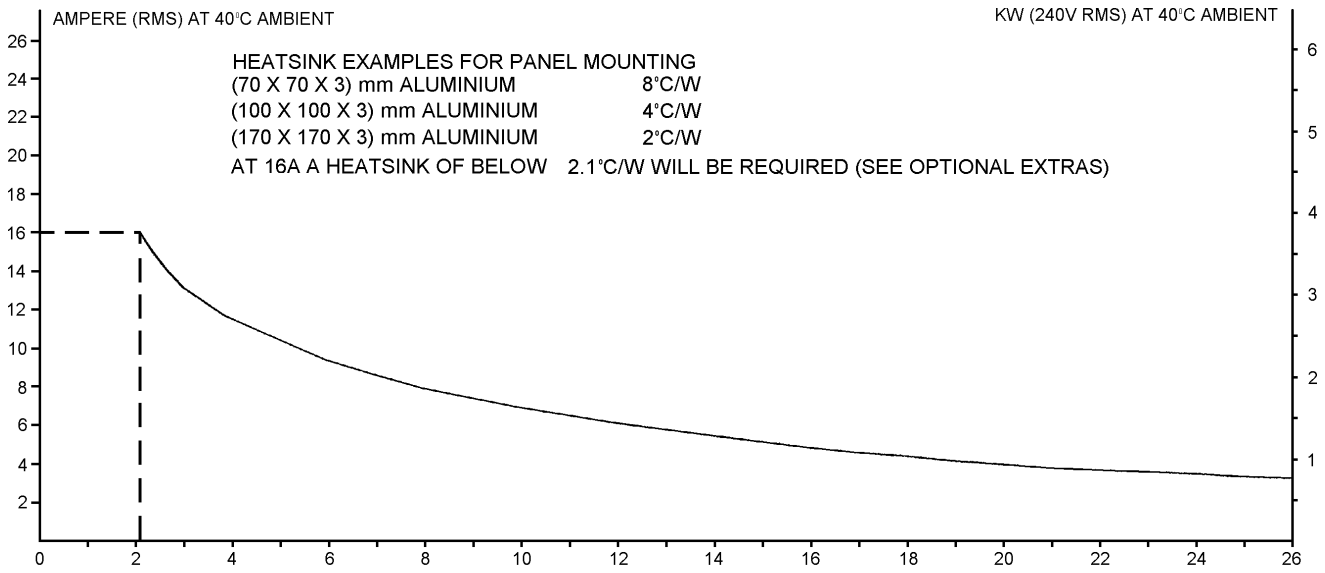
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INSTALLATION

DIMENSIONS & CONNECTIONS



Cooling Requirements



THERMAL DATA

THERMAL DATA

WITH HEATSINK AS SPECIFIED, THE MAXIMUM LOAD CURRENT CAN BE DETERMINED.

THIS IS THE MAXIMUM LOAD CURRENT POSSIBLE WITHOUT EXCEEDING THE DEVICE RATING.



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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 |



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