



# PDS Design Solutions Limited

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## 138 WATT BATTERY CONVERTERS.

NOW WITH DELAYED ON/OFF RELAY AS STANDARD.

**SM 3358** 12V INPUT, 13.8V, 10.5A DC OUTPUT.  
**SM 3359** 12V INPUT, 27.6 V, 5.3A DC OUTPUT.  
**SM 3399** 12V INPUT, 55.2V, 2.7A DC OUTPUT.  
**SM 3368** 24V INPUT, 13.8V, 10.5A DC OUTPUT.  
**SM 3369** 24V INPUT, 27.6 V, 5.3A DC OUTPUT.

**SM 3393** 24V INPUT, 55.2V, 2.7A DC OUTPUT.  
**SM 3378** 48V INPUT, 13.8V, 10.5A DC OUTPUT.  
**SM 3379** 48V INPUT, 27.6 V, 5.3A DC OUTPUT.  
**SM 3395** 48V INPUT, 55.2V, 2.7A DC OUTPUT.

- **CONSTANT CURRENT LIMIT.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **VERY HIGH CONVERSION EFFICIENCY.**
- **REMOTE ON / OFF CONTROL FACILITY.**
- **FLOAT CHARGE LEAD ACID BATTERIES.**

### GENERAL DESCRIPTION.

A small converter, generating 13.8V or 27.6V or 55.2V DC (lead acid float voltage), capable of powering most battery equipment when supplied from 12, 24, or 48V batteries. The input and output are ohmically isolated, making installation very simple. The output has a constant current characteristic so that lead acid batteries may be charged.

The specification, allows for up to 138 watts of continuous power to be used. The unit incorporates an electronic relay to turn it on/off remotely, driven by a control input, which may be supplied from any low current switch.

Power input and output is via 0.25" Fast-on tabs, which are located on the end face of the unit. The unit is packaged in a powder coated metal box measuring 49mm high by 94mm wide by 141mm long, with mounting flanges at each end, increasing overall length to 168mm.

**CAUTION:** This adaptor is supplied on the basis of the user determining the suitability for the purpose for which it is to be used. Do not use in a moving vehicle without the consent of the vehicle manufacturer. Do not use for aviation or marine applications without our written agreement. Do not use for life dependent applications.

### FIXING: -

Four 3.5mm diameter-fixing holes are available on the mounting flanges, with centres of 155mm by 70mm, symmetrically placed.

The converter employs switched mode conversion, which generates some electrical noise. In sensitive installations, to minimise interference, it is advisable to ground the case of the unit directly to the system chassis.

### SPECIFICATION.

#### INPUT: -

10.5V to 15V DC or 21V to 32V or 44V to 56V, by model. This covers general 12V, 24V or 48V battery systems.

#### NO LOAD DC OUTPUT VOLTAGE BY MODEL: -

13.8V +- 0.2V or 27.6V +- 0.3V OR 55.2V +- 0.4V.

#### LINE REGULATION: -

Less than +- 0.3V for a 3V static input change.

#### LOAD REGULATION: -

Less than 0.2V for a 0.5A to 3A static change.

#### LOW FREQUENCY RIPPLE: -

Less than 50mV pp.

#### MAXIMUM OUTPUT: -

Nominally 160W, controlled by constant current limit.

#### CURRENT LIMIT: -

13.8V output models 11A +- 0.5A.

27.6V output models 5.6A +- 0.3A.

55.2V output models 2.9A +- 0.2A.

#### ON/OFF CONTROL: -

The unit will draw less than 1mA until input battery voltage is applied to the control input. Delayed off time to order.

#### TEMPERATURE RANGE: -

-40C to +40C operating, -40C to +70C storage.

**MANUFACTURER:** - Made in the United Kingdom.

We make a large range of DC-DC converters, DC-AC (mains) inverters and other power systems.