

# PDS DESIGN SOLUTIONS LTD .



Tel: +44 (0)1279 431 746  
Webs: <http://www.whatpowersupply.com>

Fax: +44 (0)1279 435 073.  
e-mail: [sales@whatpowersupply.com](mailto:sales@whatpowersupply.com)

## 138W BATTERY CONVERTER

VERSION SM4700 24V INPUT, 13.8V OUTPUT AT 10A.



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: -

16.0 to 50.0 DC continuous. This covers general 24V Battery systems.

#### NO LOAD OUTPUT VOLTAGE: -

Factory set 13.8V +/- 0.5V. Over specified range of supply voltage, load and temperature.

#### LINE REGULATION: -

Less than +/- 0.3V for a 6V static input change.

#### LOAD REGULATION: -

Less than 0.2V for a 0.5A to 5A static change.

#### OUTPUT RIPPLE: -

Less than 100mV pk-pk including 3V pk-pk superimposed input ripple (700Hz to 4KHz) @ 25 C

#### MAXIMUM OUTPUT: -

138W (10A) continuous,

#### PROTECTION: -

Input- Reverse polarity. Low voltage protected. Will withstand 100V surge for indefinite period.

Input Ripple 3V Pk - Pk 700Hz to 4KHz. No damage will occur if frequency is reduced to 100Hz.

Input Transient up to 6 joules of energy.

Must be installed with 15A fuse on input line.

Output- Foldback current limit at 12A +/- 0.5A

#### CONTROL: -

25 to 40 minutes delay in switch off when control line in use.

#### TEMPERATURE RANGE: -

-10C to +55C for continuous rating.

-10C to +65C for 50% duty cycle

Made in the United Kingdom

### GENERAL DESCRIPTION.

A highly efficient converter, generating 13.8 volts DC, at up to 10 amps. The input and output are ohmically isolated, making installation very simple.

Heavy filtering is used to suppress the high level of ripple, extensive transients and surges experienced on Vehicle and Train applications.

The specification, given in detail opposite, allows for up to 138 watts (10amps) of continuous power to be used.

Power input and output is via flying leads, which are located on the end face of the unit. A minimum load of 100mA is required.

The unit is packaged in a powder coated metal box measuring 51mm high by 96mm wide by 226mm long, with mounting flanges at each end.

### INSTALLATION INSTRUCTIONS.

**CAUTION:-** This adaptor is supplied on the basis of the user determining the suitability for the purpose for which it is to be used. Not for life dependent use

**WARNING: -** reversal of the battery connections will result in permanent damage voiding the warranty.

#### FIXING: -

Four 3.5mm diameter fixing holes are available on the mounting flanges, symmetrically placed.

We reserve the right to change the specification without notice

Document 3396-993/6 Issue 1 April 02.