



# PDS Design Solutions Limited

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## 35 WATT BATTERY CONVERTERS.

ALLOWS DIRECT POWERING OF NOTEBOOK COMPUTERS INCLUDING BATTERY CHARGING.  
 OHMICALLY ISOLATED AND CURRENT LIMITED.

| MODEL  | INPUT  | OUTPUT        | MODEL  | INPUT  | OUTPUT        |
|--------|--------|---------------|--------|--------|---------------|
| SM3750 | 12V DC | 5V at 6.5A    | SM3760 | 24V DC | 5V at 6.5A    |
| SM3751 | 12V DC | 9V at 3.9A    | SM3761 | 24V DC | 9V at 3.9A    |
| SM3752 | 12V DC | 12V at 3.0A   | SM3762 | 24V DC | 12V at 3.0A   |
| SM3753 | 12V DC | 15V at 2.4A   | SM3763 | 24V DC | 15V at 2.4A   |
| SM3754 | 12V DC | 18V at 2.0A   | SM3764 | 24V DC | 18V at 2.0A   |
| SM3755 | 12V DC | 21V at 1.7A   | SM3765 | 24V DC | 21V at 1.7A   |
| SM3756 | 12V DC | 24V at 1.5A   | SM3766 | 24V DC | 24V at 1.5A   |
| SM3757 | 12V DC | 48V at 0.8A   | SM3767 | 24V DC | 48V at 0.8A   |
| SM3758 | 12V DC | 13.8V at 2.6A | SM3768 | 24V DC | 13.8V at 2.6A |
| SM3759 | 12V DC | 27.6V at 1.3A | SM3769 | 24V DC | 27.6V at 1.3A |



**GENERAL:** These small but powerful converters provide a source of stabilised low voltage suitable for running many different items of equipment. Their output is ohmically isolated from the system ground and constant current limited. Continuous operation in current limit is allowed making them suitable for battery charging providing charge time is controlled. Connection to the battery is by a plug with a flying lead, that fits a standard cigar lighter socket, and output is by flying lead terminated in a popular 2.5mm concentric plug.

The converters are mainly designed for use with notebook computers that have two wire input. These converters are current limited above a certain level of demand. The output isolation of the converter from system ensures that earth currents do not flow.

**BATTERY DRAIN:** These converters draw about 1A at 12V or 0.5A at 24V i/p for every 10 watts of load applied.

### SPECIFICATION:

|  |                            |
|--|----------------------------|
| Output variation for 0-90% load change:<br>(plus drop in cable). | 0.5% max.                  |
| Output variation for 2V input change:                            | 50mV max.                  |
| Output current limit See note 2:                                 | 125%± 17%                  |
| Output low frequency ripple:                                     | 200mV max.                 |
| 12V Input Supply Range:  | 10.6VDC-15VDC              |
| 24V Input Supply Range:  | 21.6VDC-32VDC              |
| No load current:   | 0.1A typical.              |
| Input to output isolation:                                       | 500Kohm ± 63VDC.           |
| Protection:  | Current limit & fuse.      |
| Size:  | 111mm x 60mm x 30mm.       |
| Weight:  | 380 grams including wires. |
| Operating Temp Range:  | -20 to +50C.               |
| Storage Temp Range:  | -40 to +70C.               |

**NOTES:** The main variation of output voltage with load is due to the resistance of the output cable. An internal potentiometer is available to adjust the output voltage over a range of ± 5% to compensate.

**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. The negative input lead is connected to case making the unit suitable only for negative earth systems.

Made in the United Kingdom.

We reserve the right to change the specification without notice.

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