



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 35 WATT BATTERY CONVERTERS. 12V/24V FULL RANGE INPUT FOR 12V AND 24V BATTERIES

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

MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT
SM4550	12V/24V DC	5V at 7A	SM4555	12V/24V DC	21V at 1.6A
SM4551	12V/24V DC	9V at 3.8A	SM4556	12V/24V DC	24V at 1.4A
SM4552	12V/24V DC	12V at 2.9A	SM4557	12V/24V DC	48V at 0.7A
SM4553	12V/24V DC	15V at 2.3A	SM4558	12V/24V DC	13.8V at 2.5A
SM4554	12V/24V DC	18V at 1.9A	SM4559	12V/24V DC	27.6V at 1.2A



Library picture representative of range covering 35W, 48W, 65W and 100W models.

**GENERAL:** These small but powerful converters provide a general of stabilised low voltage suitable for running many different items of equipment. Their output is ohmically isolated from the input and case 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 cigar lighter type 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 input and case 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: (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:	100mV max.

12V Input Supply Range:	10.6VDC - 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:	-40 to +40C.
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.

We manufacture a wide range of DC-DC converters, DC-AC (mains) inverters and many other power systems.

We specialise in the custom design of Hydrogen Stack converters up to 10KW.

Made in the United Kingdom.

We reserve the right to change the specification without notice.

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