



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 250 WATT DC - DC CONVERTERS.

NOW AVAILABLE WITH DELAYED ON OFF FACILITY

MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT
SM4750	12V	5V at 35A	SM4760	24V	5V at 35A	SM4770	48V	5V at 35A
SM4751	12V	9V at 22A	SM4761	24V	9V at 22A	SM4771	48V	9V at 22A
SM4752	12V	12V at 20A	SM4762	24V	12V at 20A	SM4772	48V	12V at 20A
SM4753	12V	15V at 16.5A	SM4763	24V	15V at 16.5A	SM4773	48V	15V at 16.5A
SM4754	12V	18V at 13.5A	SM4764	24V	18V at 13.5A	SM4774	48V	18V at 13.5A
SM4755	12V	21V at 11.5A	SM4765	24V	21V at 11.5A	SM4775	48V	21V at 11.5A
SM4756	12V	24V at 10.4A	SM4766	24V	24V at 10.4A	SM4776	48V	24V at 10.4A
SM4757	12V	48V at 5.2A	SM4767	24V	48V at 5.2A	SM4777	48V	48V at 5.2A
SM4758	12V	13.8V at 18A	SM4768	24V	13.8V at 18A	SM4778	48V	13.8V at 18A
SM4759	12V	27.6V at 9.1A	SM4769	24V	27.6V at 9.1A	SM4779	48V	27.6V at 9.1A

- **CONSTANT CURRENT LIMIT.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **REMOTE ON / OFF CONTROL FACILITY.**
- **INPUT UNDER / OVERVOLTAGE SHUTDOWN.**



Library picture representative of range.

**GENERAL DESCRIPTION.** A small converter, generating a range of standard voltages, capable of powering most battery equipment when supplied from 12, 24V or 48V batteries. The input and output are ohmically isolated, making installation very simple. The output has a constant current limit.

The specification allows for up to 250 watts of continuous power to be used. The unit incorporates an electronic relay to turn it on/off remotely, driven by a control input.

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 46mm high by 94mm wide by 226mm long, including mounting flanges at each end.

**FIXING:** - Four 3.5mm diameter-fixing holes are available on the mounting flanges, with centres of 214mm 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 or 21.6V to 32V or 44V to 56V.  
This covers general 12V, 24V and 48V battery systems.

**O/P VOLTAGE (10% Load):** Nominal +100mV  $\pm$  50mV.

**LINE REGULATION:** - Less than  $\pm$  0.05V for a 10% static input change.

**LOAD REGULATION:** - Less than 0.1V for a 10% to 90% static load change.

**LOW FREQUENCY RIPPLE:** - Less than 50mV pp.

**CURRENT LIMIT :** Nominal plus 10%,  $\pm$  7%.

**ON/OFF CONTROL:** -The unit will draw less than 0.1mA until a voltage (3V to 72V) is applied to the control input.

**SIZE:** 46mm x 98mm x 226mm.

**WEIGHT:** 820 grams.

**TEMPERATURE RANGE:** - -40C to +50C operating,  
-40C to +70C storage.

**MANUFACTURER:** - SMET Ltd. Reading, UK.

**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 maker. Do not use for aviation or marine applications without written agreement. Do not use for life dependent applications. We reserve the right to change the specification without notice.

Document 4750-993.

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.