



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 250 WATT DC - DC CONVERTERS.

AVAILABLE WITH ON/OFF FACILITY TO ORDER

MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT
SM5050	60V	5V at 35A	SM5060	72V	5V at 35A	SM5070	84V	5V at 35A
SM5051	60V	9V at 22A	SM5061	72V	9V at 22A	SM5071	84V	9V at 22A
SM5052	60V	12V at 20A	SM5062	72V	12V at 20A	SM5072	84V	12V at 20A
SM5053	60V	15V at 16.7A	SM5063	72V	15V at 16.7A	SM5073	84V	15V at 16.7A
SM5054	60V	18V at 13.9A	SM5064	72V	18V at 13.9A	SM5074	84V	18V at 13.9A
SM5055	60V	21V at 11.9A	SM5065	72V	21V at 11.9A	SM5075	84V	21V at 11.9A
SM5056	60V	24V at 10.4A	SM5066	72V	24V at 10.4A	SM5076	84V	24V at 10.4A
SM5057	60V	48V at 5.2A	SM5067	72V	48V at 5.2A	SM5077	84V	48V at 5.2A
SM5058	60V	13.8V at 17.6A	SM5068	72V	13.8V at 17.6A	SM5078	84V	13.8V at 17.6A
SM5059	60V	27.6V at 9.1A	SM5069	72V	27.6V at 9.1A	SM5079	84V	27.6V at 9.1A

- **CONSTANT CURRENT LIMIT.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **REMOTE ON/OFF CONTROL FACILITY (if fitted).**
- **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 60, 72V or 84V 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:** -53V to 75V or 63V to 84V or 77V to 98V.

This covers general 60V, 72V and 84V battery systems.

**VOLTAGE (10% LOAD):** - Nominal + 100mV ±50mV.

**LINE REGULATION:** - Less than ± 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%, ± 7%.

**ON/OFF CONTROL:** The unit will draw less than 0.1mA until a voltage (3V to 99V) 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. Fuse battery at source. Case must be grounded to local safety earth.

We reserve the right to change the specification without notice.

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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.