



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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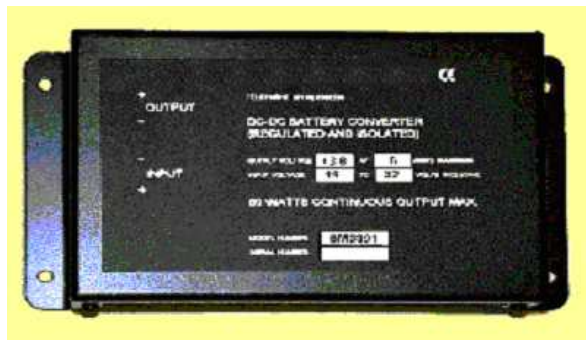
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## 138 WATT DC - DC CONVERTERS.

AVAILABLE WITH DELAYED ON OFF FACILITY

MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT	MODEL	INPUT	OUTPUT
SM5020	60V	5V at 20A	SM5030	72V	5V at 20A	SM5090	84V	5V at 20A
SM5021	60V	9V at 12.5A	SM5031	72V	9V at 12.5A	SM5091	84V	9V at 12.5A
SM5022	60V	12V at 11.5A	SM5032	72V	12V at 11.5A	SM5092	84V	12V at 11.5A
SM5023	60V	15V at 9.2A	SM5033	72V	15V at 9.2A	SM5093	84V	15V at 9.2A
SM5024	60V	18V at 7.7A	SM5034	72V	18V at 7.7A	SM5094	84V	18V at 7.7A
SM5025	60V	21V at 6.6A	SM5035	72V	21V at 6.6A	SM5095	84V	21V at 6.6A
SM5026	60V	24V at 5.8A	SM5036	72V	24V at 5.8A	SM5096	84V	24V at 5.8A
SM5027	60V	48V at 2.9A	SM5037	72V	48V at 2.9A	SM5097	84V	48V at 2.9A
SM5028	60V	13.8V at 10A	SM5038	72V	13.8V at 10A	SM5098	84V	13.8V at 10A.
SM5029	60V	27.6V at 5.0A	SM5039	72V	27.6V at 5.0A	SM5099	84V	27.6V at 5.0A

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



**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 138 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 49mm high by 94mm wide by 168mm long, including mounting flanges at each end.

**FIXING:** - Four 3.5mm diameter-fixing holes are available on the mounting flanges, with centres of 155mm 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.

**Warning:-** Fuse battery at source.

**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 voltage (3V to 99V) is applied to the control input. Units can be supplied set permanently 'on' or with delayed 'off'. Contact sales to order.

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

**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.

Made in the UK.

We reserve the right to change the specification without notice.

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