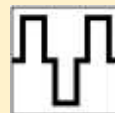


CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



Tel: + 44 (0)118 983 1222

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Fax: Now Email Only.

www.custompsdesign.com

Unit 1, The Forge, Reading Road, Burghfield Common, Berks. RG7 3BL.

custom@custompsdesign.com

WIDE RANGE DC-DC HYDROGEN STACK CONVERTERS.

UP TO 1500W INPUT, WITH WIDE STACK VOLTAGE RANGE.

OUTPUT	INPUT: 12-36V	18-48V	24-60V	30-84V
5.0V at 150A (750W)	SM5550	SM5560	SM5570	SM5580
9.0V at 140A (1260W)	SM5551	SM5561	SM5571	SM5581
12.0V at 125A	SM5552	SM5562	SM5572	SM5582
15.0V at 100A	SM5553	SM5563	SM5573	SM5583
18.0V at 83.3A	SM5554	SM5564	SM5574	SM5584
21.0V at 71.4A	SM5555	SM5565	SM5575	SM5585
24.0V at 62.5A	SM5556	SM5566	SM5576	SM5586
48.0V at 31.3A	SM5557	SM5567	SM5577	SM5587
13.8V at 108.7A	SM5558	SM5568	SM5578	SM5588
27.6V at 54.3A	SM5559	SM5569	SM5579	SM5589

- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **FEATURES 'STACKLIMIT'© CONTROL.**
- **REMOTE ON / OFF CONTROL FACILITY.**



Library picture representative of the range.

GENERAL DESCRIPTION. A small converter handling up to 1500W from a hydrogen stack, with various dc outputs, model dependent. The input and output are ohmically isolated, making installation very simple. The output has a constant current limit and the unit can be turned on/off remotely, via a logic input.

The unit is intended for use with fuel cell stacks, where maximum power is available at a well-defined stack voltage, typically 45% of the stack's open circuit voltage. By setting the 'STACKLIMIT'© of the converter to this voltage, the unit will start to fold back with high load, balancing the stack at maximum possible stack output.

A fixed output current limit applies, but normally the stack will limit before the current limit is reached.

Connection is by 5mm female terminals, under the raised base.

SPECIFICATION.

INPUT VOLTAGE: See model listing above.

The 'STACKLIMIT'© is variable by potentiometer, from lowest input voltage to 55% of maximum input, see text.

OUTPUT:

Voltage (10% Load): Nominal + 100mV $\pm$ 50mV.
Line Regulation: < $\pm$ 0.05V for a 10% change.
Load Regulation: < -0.1V for a 10% to 90% load.
Low Frequency Ripple: Less than 100mV pp.
Current Limit: Nominal plus 10%, $\pm$ 7%.
On/Off Control: The unit will draw less than 0.1mA until +3V to +84V is applied to the control input.

GENERAL:

Protection: O/P Current Limit and input fuse.
Size: 295mm x 133mm x 88mm.
Weight: 2400 grams.
Storage Temp Range: -40 to +70C.
Operating Temp Range: -40 to +45C.
Manufacturer: Made in UK by SMET Ltd.

CAUTION: This adaptor is supplied based on 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. We reserve the right to change the specification without notice.

Document 5550-993

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.