



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



Tel: + 44 (0)118 983 1222

A DIVISION OF SMET LTD

www.custompsdesign.com

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

custom@custompsdesign.com

## HANDY MAINS 120W INVERTER 12V/24V DUAL INPUT.

NEGATIVE EARTH SYSTEMS ONLY

- SM4530** cigar plug input and 230V UK outlet.
- SM4531** 3 wire input and 230V UK outlet.
- SM4532** cigar plug input and 230V IEC outlet.
- SM4533** 3 wire input and 230V IEC outlet.
- SM4534** cigar plug input and 230V SHUKO outlet.
- SM4535** 3 wire input and 230V SHUKO outlet.

- SM4536** cigar plug input and 115V (50Hz) IEC outlet.
- SM4537** 3 wire input and 115V (50Hz) IEC outlet.
- SM4538** cigar plug input and 115V (60Hz) IEC outlet.
- SM4539** 3 wire input and 115V (60Hz) IEC outlet.
- SM2791** Mounting Bracket Kit.

- **11V TO 32V DC FULL RANGE BATTERY INPUT.**
- **CAN BE PERMANENTLY INSTALLED.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **REMOTE ON / OFF CONTROL FACILITY.**

**GENERAL.** These economic inverters convert battery voltage to mains, for powering small power tools and domestic appliances, etc. All models have an output power of 160 watts short term, and a continuous power available of 120 watts. Output is either by standard UK 13A or Euro SHUKO or IEC (Kettle type) socket.

Cigar plug versions are fitted with a plug for direct connection to a cigar lighter socket. A rating for the cigar lighter socket of more than 16 amps (12V input) or 8 amps (24V input) is required for full output, reduced in proportion to the actual load.

'3 wire' versions are designed to be permanently installed with direct connection to the battery. A third low current signal lead taken to the battery positive via a switch turns the **HANDY MAINS** on and off. The **HANDY MAINS** may be mounted on a flat surface using the mounting bracket kit **SM 2791**.

**BATTERY DRAIN:** A figure of 1 amp (12V input) or 0.5amp (24V input) for every 10 watts of output load is a good guide. Intermittently used power tools will not significantly drain the battery, but anything used continuously could.

**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. The negative input lead is connected to case and output ground making the unit suitable only for negative earth systems. RCD protection must be used if power tools are used outside.



Library picture representative of range.

### SPECIFICATION:

#### INPUT

Battery:	Both 12V and 24V nominal.
Voltage Range:	11V - 32V.
Power, No Load:	6W
Per 10W loading:	1A at 12V input, 0.5A at 24V.
Remote On/Off:	The units draw <1mA until the on/off control input is connected to battery positive.

#### OUTPUT

Output Voltage:	230V or 115V ± 10% RMS.
Frequency:	50/60Hz nominal, -2Hz to +3Hz.
Output Wave Form:	Quasi sine wave.
Capacitive load (max):	0.5uF (230V) or 1.0uF (115V).
Power, Nominal:	120 Watts continuous (resistive).
Power, Short term:	160 Watts for 5 minutes.
Protection:	Current and temperature limit. Internal battery fuse for surge.

#### GENERAL

Size:	45mm x 141mm x 94mm.
Weight:	0.85 Kg.
Storage Temperature:	-40 to +70C.
Operating Temperature:	-40 to +45C.

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 UK.

We reserve the right to change the specification without notice.

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