



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 1500 WATT 'HANDY MAINS' INVERTERS (230V AC).

MODEL	INPUT	OUTPUT SOCKET	MODEL	INPUT	OUTPUT SOCKET
SM4320	36V DC	DOUBLE UK 13A	SM4325	48V DC	DOUBLE UK 13A
SM4321	36V DC	DOUBLE IEC 'KETTLE'	SM4326	48V DC	DOUBLE IEC 'KETTLE'
SM4322	36V DC	DOUBLE EURO SHUKO	SM4327	48V DC	DOUBLE EURO SHUKO
SM 4323	36V DC	1x UK, 1 x SHUKO	SM4328	48V DC	1x UK, 1 x SHUKO.

**ACCESSORIES:** SM 2793 Heavy Duty Wiring Kit, 2 metres long, for easy battery connection.



- VIRTUALLY SILENT USE (FAN ONLY).
- HIGH OUTPUT POWER IN COMPACT SIZE.
- LATEST 'POWER PUSH' © SURGE HANDLING.
- VERY HIGH CONVERSION EFFICIENCY.
- REMOTE ON / OFF CONTROL FACILITY.

**GENERAL DESCRIPTION.** Small floor mounting converters, available with other input and output voltages, generating mains level power, capable of powering most equipment from any 36 or 48 volt battery systems (model specific). Models with appropriate sockets are available to suit all needs.

Input negative is connected to case, but can be isolated by special order (contact sales). The output is isolated via a safety barrier from the input.

The output is a stepped quasi AC sine wave of nominally 230V RMS with a peak voltage appropriate to European mains. The output is suitable for almost all equipment.

The specification allows for up to 1500 watts of continuous power to be used, with up to 2 minutes at 2000 watts, accommodating disk drive run-up, motor start, etc. 'Power push' technology usually allows operation of equipment drawing a starting surge of over 9 kilowatts.

**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 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.

The battery input is via flat 5 mm screw terminals mounted on the rear of the unit. The unit may be turned off and on remotely, by a low current control input supplied from battery positive via a small switch.

**CONNECTION:** A **Heavy Duty Wiring Kit**, part no. SM2793, is available, consisting of 16mm<sup>2</sup> cable, 2 metres long, terminated in suitable heavy duty eyelet terminals.

**BATTERY SELECTION:** Only heavy duty (high discharge rate) batteries are suitable as a power source. Fully sealed types should be used in enclosed spaces (especially inside the home). Ordinary car batteries are only suitable in well ventilated areas. Fuse Battery at source.

<b>SPECIFICATION:</b>	<b>36V TYPES</b>	<b>48V TYPES</b>
<b>INPUT</b>		
Battery:	36V nominal.	48V nominal.
Voltage Range:	33V - 45V	43.2V - 63V
Current, No Load:	0.3A	0.2A
Per 10W loading:	0.33A	0.25A
Remote On/Off:	The units draw <1mA until the control input is connected to battery positive.	

### OUTPUT

Output Voltage:	230V ± 15V RMS. from inverter.
Frequency:	50Hz nominal, 48Hz to 53Hz.
Output Wave Form:	Quasi sine wave.
Capacitive load:	3.0uF maximum.
Power, Nominal:	1500W continuous (resistive).
Power, Short term:	2000W for 2 minutes.
'Power Push' onset:	Output current >36A minimum.
Protection:	Current and temperature limit.

### GENERAL

Size:	170mm x 155mm x 180mm.
Weight:	3.4 Kg.
Storage Temperature:	-40 to +70C.
Operating Temperature:	-20 to +35C.
Manufacturer:	Made in the United Kingdom.

Document 4320-993

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.