



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 700W 'HANDY MAINS' INVERTERS, 230V AC OUTPUT.

OUTPUT SOCKET(S)	12V INPUT	24V INPUT	36V INPUT
UK AND SHUKO	SM3185	SM3215	SM3945
1 x IEC	SM3186	SM3216	SM3946
1 x SHUKO	SM3187	SM3217	SM3947
2 x UK	SM3188	SM3218	SM3948
1 x IEC (58 - 63Hz).	SM3189	SM3219	SM3949

**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.
- FRONT PANEL ON/OFF SWITCH.
- REMOTE ON / OFF CONTROL FACILITY.

**GENERAL DESCRIPTION.** Small converters, available with other input and output voltages, generating mains level power, capable of powering most equipment from any 12, 24 or 36 volt battery systems (model specific). Models with different sockets are available to suit all needs.

Input negative is connected to case as supplied, but can be supplied isolated at time of purchase if specified. 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 700 watts of continuous power to be used, with up to 5 minutes at 800 watts, accommodating disk drive run-up, motor start, etc. New 'power push' technology usually allows operation of equipment drawing a starting surge of over 3 kilowatts.

The battery input is via flat 5 mm screw terminals mounted under the raised body 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.

### SPECIFICATION:

#### INPUT

Nominal Voltage:	12V, 24V, or 36V Nominal.
Input Voltage Range:	Nominal – 11.7% to +16.7%
Current, No Load:	0.5A, 0.4A, and 0.3A over range.
Efficiency (approximate):	88%
Low Battery Alarm:	Nominal – 12.5%
Battery Low Latch Off:	Nominal – 20%
Remote On/Off:	The units draw <1mA until the control on/off input is enabled.

#### OUTPUT

Output Voltage:	230V ± 15V RMS. from inverter.
Frequency:	50Hz nominal, 48Hz to 53Hz.
Output Wave Form:	Quasi sine wave.
Capacitive load:	2.0uF maximum.
Power, Nominal:	700 Watts continuous (resistive).
Power, Short term:	800 Watts for 5 minutes.
'Power Push' onset:	Output current >12A minimum.
Protection:	Current and temperature limit.

#### GENERAL

Size:	64mm x 260mm x 103mm.
Weight:	1.55 Kg.
Storage Temperature:	-40 to +70C.
Operating Temperature:	-40 to +35C.
Manufacturer:	Made in the United Kingdom

**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. The negative input lead is connected to case and output ground making the unit suitable only for negative earth systems unless isolation is requested at time of purchase. We reserve the right to change the specification without notice.

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