



# PDS Design Solutions Limited

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

MODEL	INPUT	OUTPUT SOCKETS	MODEL	INPUT	OUTPUT SOCKETS
SM4270	12V DC	DOUBLE UK 13A	SM4310	24V DC	DOUBLE UK 13A
SM4271	12V DC	DOUBLE IEC 'KETTLE'	SM4311	24V DC	DOUBLE IEC 'KETTLE'
SM4272	12V DC	DOUBLE EURO SHUKO	SM4312	24V DC	DOUBLE EURO SHUKO
SM4273	12V DC	1 UK AND 1 EURO SHUKO	SM 4313	24V DC	1 UK AND 1 EURO SHUKO

**THESE UNITS ARE AVAILABLE IN OTHER INPUT VOLTAGES (UP TO 144V DC) BY SPECIAL ORDER.**

**ACCESSORIES:** SM2793 Heavy Duty Wiring Kit, 2 metres long, for easy battery connection ([see note](#)).



- 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 12 or 24 volt battery systems (model specific). Models with appropriate sockets are available to suit all countries.

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, 'Power push' technology usually allows operation of equipment drawing a starting surge of over 9 kilowatts.

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.

**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.

We reserve the right to change the specification without notice

**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.

Note: Wire Kit must be shortened to 1 metre for 12V use.

**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:	12V TYPES	24V TYPES
<u>INPUT</u>		
Battery:	12V nominal.	24V nominal.
Voltage Range:	11V-15V.	21.6V-30V.
Current, No Load:	0.5A	0.35A
Per 10W loading:	1 A	0.5A
Remote On/Off:	The units draw <1mA until the control input is connected to battery positive.	

### OUTPUT

Output Voltage:	230V $\pm$ 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 (De-rated to +55C).
Manufacturer:	Made in the United Kingdom.

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