



# CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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## 115V AC HANDY MAINS POWER ADAPTOR INFORMATION SHEET

<b>SM2800</b> 12V i/p, cigar plug, 60Hz, UK outlet.	<b>SM2820</b> 24V i/p, 3 wire/plug 60Hz, UK outlet.
<b>SM2806</b> 12V i/p, cigar plug, 50Hz, UK outlet.	<b>SM2821</b> 24V i/p, 3 wire/plug 50Hz, UK outlet.
<b>SM2810</b> 12V i/p, cigar plug, 60Hz, IEC outlet.	<b>SM2826</b> 24V i/p, 3 wire/plug 60Hz, IEC outlet.
<b>SM2802</b> 12V i/p, cigar plug, 50Hz, IEC outlet.	<b>SM2827</b> 24V i/p, 3 wire/plug 50Hz, IEC outlet.
<b>SM2815</b> 12V i/p, cigar plug, 60Hz, US outlet.	<b>SM2824</b> 24V i/p, 3 wire/plug/mtgs 50Hz, IEC outlet.
<b>SM2801</b> 12V i/p, 3 wire, 60Hz, UK outlet.	<b>SM2828</b> 24V i/p, 3 wire/plug 50Hz, Shuko outlet.
<b>SM2808</b> 12V i/p, 3 wire, 50Hz, UK outlet.	<b>SM2830</b> 24V i/p, 3 wire/plug 50Hz, IEC & Alarm.
<b>SM2803</b> 12V i/p, 3 wire, 60Hz, IEC outlet.	<b>SM2791</b> Mounting bracket kit.
<b>SM2813</b> 12V i/p, 3 wire, 50Hz, IEC outlet.	<b>SM2799</b> 12V i/p, 3 wire, 50Hz, Shuko outlet.
<b>SM2809</b> 12V i/p, 3 wire, 60Hz, Shuko outlet.	<b>SM2811</b> 12V i/p, cigar plug, 50Hz, Shuko outlet.

- PLUGS DIRECTLY INTO A CIGAR SOCKET.
- CAN BE PERMANENTLY INSTALLED.
- HIGH OUTPUT POWER IN COMPACT SIZE.
- REMOTE ON / OFF CONTROL FACILITY.

**GENERAL.** These economic inverters convert battery voltage to 115V AC, for powering small power tools and domestic appliances, etc. All models have an output power of 250 watts short term, and a continuous power available of 200 watts. Output is either by standard UK 13A or IEC (Kettle type) socket.

The **HANDY MAINS** is fitted with an audible warning indicating that the battery is becoming discharged. The warning tone gets louder as the battery voltage falls, prompting you to charge the battery.

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 20 amps (12V input) or 10 amps (24V input) is required for full output, reduced in proportion to the actual load.

'3 wire' versions' (and 24V i/p models with cigar plug removed) 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 low current switch turns the **HANDY MAINS** on and off. The **HANDY MAINS** may be mounted on a flat surface using the mounting bracket kit **SM2791**.

**BATTERY DRAIN:** A figure of 1 amp (12V input) or 0.5 amp (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. Its a good idea to charge the battery periodically when supplying high power continuously.

**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.



<b>SPECIFICATION:</b>	<b>12V TYPES</b>	<b>24V TYPES</b>
<b>INPUT</b>		
Battery:	12V nominal.	24V nominal.
Voltage Range:	11V-15V.	22V-30V.
Current, No Load:	0.4A	0.2A
Per 10W loading:	1 A	0.5A
Remote On/Off:	The units draw <1mA until the on/off control input is connected to battery positive.	
<b>OUTPUT</b>		
Output Voltage:	115V ± 10% RMS, 2.2A max.	
Frequency:	50Hz or 60Hz nominal.	
Output Wave Form:	Quasi sine wave.	
Capacitive load:	1.0uF maximum.	
Power, Nominal:	200 Watts continuous (resistive).	
Power, Short term:	250 Watts for 5 minutes.	
Protection:	Current and temperature limit. Internal battery fuse for surge.	
<b>GENERAL</b>		
Size and Weight:	45 x 141 x 94mm, 0.8 Kg.	
Storage Temperature:	-40 to +70C.	
Operating Temperature:	-40 to +35C.	
Made in the United Kingdom.		

We reserve the right to change the specification without notice.

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