



CUSTOM POWER DESIGN

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT



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HANDY MAINS 120W INVERTER 115V/230V 'MAINS DC' OUTPUT. UNIVERSAL WIDE INPUT RANGE, 11V - 30V OR 22V - 56V, (ISOLATED).

WARNING: RCD SAFETY BREAKERS will not operate with these units.

SM4520 12/24V input to '230V' IEC.

SM4521 12/24V input to '230V' Flying IEC.

SM4523 12/24V input to '115V' IEC.

SM4524 12/24V input to '115V' Flying IEC.

SM2791 Mounting bracket kit.

SM4525 24/48V input to '230V' IEC.

SM4526 24/48V input to '230V' Flying IEC.

SM4528 24/48V input to '115V' IEC.

SM4529 24/48V input to '115V' Flying IEC.



Library picture representative of range.

- **DUAL BATTERY RANGE INPUT, 12/24V OR 24/48V.**
- **ISOLATED FOR POSITIVE OR NEGATIVE GROUND.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **REMOTE ON / OFF CONTROL FACILITY.**

GENERAL. Small converters generating a 'Mains DC' output from 11V-32V or 22V – 60V input. The output is only suitable for powering equipment employing switched mode power conversion, where incoming AC mains is immediately rectified. This is true of most modern equipment. All models have an output power of 160 watts short term, and a continuous power available of 120 watts. Output is either by standard IEC or flying IEC socket.

COMPATIBILITY CHECK: Measure the resistance between the live and neutral pins of the charger's mains connector (no mains connected). If the resistance is greater than 10K ohms (no mains transformer primary) then the equipment should be compatible.

These 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 unit on and off. A separate green/yellow grounding wire is provided for connection to local safety earth.

BATTERY DRAIN: A figure of 1.0A (12V input), 0.5 amp (24V input) or 0.25 amp (48V input) for every 10 watts of output load is a good guide.

The **HANDY MAINS** may be mounted on a flat surface using the mounting bracket kit **SM2791**.

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 output is only suitable for equipment employing switched mode power conversion, and not having a 50Hz mains transformer or mains heater element. The units will not operate RCD Breakers.

SPECIFICATION:

INPUT

Voltage Ranges:	11V - 32V. (10V - 38V for 30S). 22V - 60V. (20V - 66V for 30S).
Efficiency:	83 Percent Typical.
Power, No Load:	6W

OUTPUT

Output Voltages:	230V AC equivalent (300VDC) 115V AC equivalent (150VDC)
Capacitive load:	Unlimited.
Power, Nominal:	120 Watts continuous (resistive).
Power, Short term:	160 Watts for 5 minutes.
Protection:	Current limit and battery fuse.

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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