



PDS Design Solutions Limited

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200W INVERTERS, HIGH VOLTAGE INPUT, 115V AND 230V AC OUTPUT. ISOLATED INPUT FOR POSITIVE OR NEGATIVE GROUND SYSTEMS.

CONFIGURATION	36V I/P	48V I/P	60V I/P	72V I/P	84V I/P
230V 50Hz UK	SM2740	SM3040	SM2880	SM2883	SM2886
230V 50Hz IEC	SM2741	SM3041	SM2881	SM2884	SM2887
230V 50Hz SHUKO	SM2742	SM4043	SM2882	SM2885	SM2888
230V 50Hz CABLE IEC	SM2743	SM3042	-----	-----	-----
230V 50Hz CABLE	-----	SM3045	-----	-----	-----
115V 50Hz UK	SM2750	SM3048	-----	-----	-----
115V 50Hz IEC	SM2751	SM3049	SM2890	SM2893	SM2896
115V 60Hz IEC	SM2752	SM3044	SM2891	SM2894	SM2897
115V 50Hz SHUKO	SM2753	SM3046	-----	-----	-----
115V 50Hz CABLE	-----	SM3047	-----	-----	-----



GENERAL. These economic power adaptors convert battery voltage to mains level voltage, for powering computers, printers, etc. The units have an output power of 250 watts short term, with surge handling up to 500 watts. Continuous available power, quoted as 200W, is limited automatically by case temperature.

Actual continuous power depends on imponderables such as mounting attitude, ventilation and ambient temperature, but 160 watts is guaranteed in a 45C ambient. Output, indicated by a neon, is by standard IEC or UK 13A socket. SM3045 and SM3047 have a 1.5 metre long flying lead which must be terminated in a junction box complying with safety rules.

These UNITS are designed to be permanently installed with direct connection to the battery. A yellow control wire is provided to turn the unit on/off by connection to positive input. The unit may be mounted using mounting kit **SM 2791.**

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. Maximum live to neutral capacitance is 0.5uF for 230V units and 1.0uF for 115V units.

CONNECTION: The supply must be fused at source. The case of the unit and the output socket Earth pin are connected to the Green/Yellow Protective Earth wire.

SPECIFICATION

115V AC UNITS: 115VAC RMS Nominal, 48Hz – 53Hz or 58Hz – 63Hz, 108V - 127V RMS over load range up to 2.2 amps. Maximum load capacitance 1.0uF.

230V AC UNITS: 230VAC RMS Nominal, 48Hz – 53Hz, 216 - 255 V RMS over load range up to 1.1 amps. Maximum load capacitance 0.5uF.

The output is a quasi sine wave. Minimum output power available is 160 watts up to 45C ambient temperature, with 200 watts available if care is taken with mounting, ventilation etc. The units can supply 250W short term, with a surge capability of 500W.

INPUT: 36V, 48V, 60V, 72V, 84V Battery. Nominal battery voltage, -8.3% to +16.7% continuous, -12% to +31% for 10 seconds. Efficiency is typically 85%. The unit will draw about 6W unloaded.

SELF PROTECTION SYSTEM: Over-current protection is provided, so that if plugged into unsuitable equipment, the HANDY MAINS will not be damaged. The HANDY MAINS when used in accordance with these instructions cannot damage any appliance.

WARNING:- These units only support the use of 2 wire RCD protectors (non-ground-seeking).

TEMPERATURE: -40 to +35C operating, -40 to +70C storage.