PDS Design Solutions Ltd

ELECTRONICS CONSULTANTS PROVIDING CUSTOM DESIGN, DEVELOPMENT, TEST & SUPPORT

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180W INVERTER FOR 'ETSI' TYPE EQUIPMENT RACKS.

Six separate outlet sockets (30W maximum) for use with auxiliary exchange equipment.
Isolated input for positive or negative ground systems.

Model No.	Rack Type	Output Sockets	Input Voltage	Output Voltage
SM5296	ETSI (4N High)	6 x UK (13A)	48V	230VAC RMS

Other Input and Output Voltages Available.

FRONT

REAR

GENERAL. A low power source of AC mains is often needed for several items of auxiliary equipment in Telecoms Exchanges, where the main power source is nominally 24VDC or 48VDC. These inverters convert this DC voltage into normal 230VAC 50Hz mains.

Six standard sockets are provided, each rated for continuous use at 30W maximum. Short term, up to 100W may be taken from any one socket providing total power taken from all sockets does not exceed 200W. Maximum allowable live to neutral capacitance is 0.68uF per socket. To conform to normal UK wiring, the output sockets neutral and earth pins are connected to chassis ground.

Though conforming to standard rack sizes, the units are typically mounted on the rear frame of the rack at a level allowing access to main equipment. Note that the sockets are on the rear (inside) face of the unit. The units are just 82 mm deep, plus 9 mm for connectors.

These units are designed to be permanently installed with direct connection to the battery via a circuit breaker. The unit does not have its own on/off switch. Fixing is by standard rack methods.

CONNECTION: The Exchange DC supply connects directly to a terminal block on the rear face of the unit. Maximum continuous input current is 5A. The supply must be protected at source by a fuse or MCB rated at 6A. Wire size should be chosen to restrict loop voltage drop to less than 0.5V. If in doubt, use wire having 2.5 square mm cross section. The 6mm ground stud must be connected to Safety Earth using local Exchange rules.

SPECIFICATION

OUTPUT: 230VAC RMS Nominal, 48Hz – 53Hz,
216 - 255 VAC RMS over load and input range.

The continuous power available is 180W, distributed across 6 sockets, each one restricted to 30W maximum. Any socket can supply 100W short term, providing total power taken does not exceed 200W. Maximum permissible load capacitance, Live to Neutral, is 0.68uF per socket.

INPUT: 48V Battery, 44V to 60V continuous, 42V to 63V continuous for 60 seconds. Efficiency is higher than 85% on a resistive load. The input is isolated so the either terminal of the battery may be earthed. The unit will draw about 6W unloaded.

SELF PROTECTION SYSTEM: Over-current protection is provided, so that if plugged into unsuitable equipment, the inverter will not be damaged. When used in accordance with these instructions the output cannot damage any appliance. The input supply must be protected at source by a fuse or MCB rated at 6A.

TEMPERATURE RANGE:
-20 to +50C operating, -40 to +70C storage.

SIZE: 533mm wide by 100mm high (4N) by 82mm deep plus connectors adding 9mm.

WEIGHT: 2.4Kg.

CAUTION: This adaptor is supplied on the basis of the user determining the suitability for the purpose for which it is to be used.