



# PDS Design Solutions Limited

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## 35WATT 230V AC OUTPUT POWER INVERTERS.

(Floating input and isolated output for positive or negative earth systems).

**SM 4680** 48V INPUT, DUAL UK 13A OUTLET.  
**SM 4681** 48V INPUT, TERMINAL OUTLET.  
**SM 4682** 48V INPUT, DUAL IEC OUTLET.

**SM 4685** 12V INPUT, DUAL UK 13A OUTLET.  
**SM 4686** 12V INPUT, TERMINAL OUTLET.  
**SM 4688** 24V INPUT, DUAL UK 13A OUTLET.  
**SM 4689** 24V INPUT, TERMINAL OUTLET.



### GENERAL.

These economic inverters convert battery voltages of 12V, 24V or 48V (model dependant) to UK mains level voltage, for powering small items employing mains transformers. The units have an output power of 35 watts, with a 10 minute capability of to 50 watts.

These units employ 'Power Push', a proportional surge control system for starting difficult loads, proprietary to Switched Mode Ltd. The units are short circuit proof indefinitely. These inverters are designed to be permanently installed with direct connection to the battery.

**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.

### CONNECTION:

Two 6.35mm spade terminals are provided for connection to the battery, with a separate grounding terminal for the case. Output is either by two spade terminals or by dual UK mains sockets depending on model. The case of the unit and the Earth pin of the output sockets are internally connected to the ground terminal.

### SPECIFICATION

#### OUTPUT:

240V AC RMS NOMINAL. The output is a Square wave able to supply up to 300 milliamps with a true power continuous limit of 35W. Up to 50W may be taken for 10 minutes from cold. Crest voltage will vary within safe limits in proportion to input voltage.

The output frequency is set to 65Hz to allow for the form factor of the waveform when used with volt second limited mains transformers. It is assumed that the peak of the voltage, after rectification, will be important to the powered equipment. Call our help line should you require further explanation.

Note: The output is suitable for use with most equipment, but is limited to a maximum live to neutral capacitance of 0.5uF. Such capacitance is often found in mains filters which are best removed. Consider this if plugging in several appliances.

#### INPUT 12V MODELS:

11V to 14.5V DC continuous, 10.6V to 15V for 10 seconds. Input current is about 1.0 amp for every 10 watts of load.

#### INPUT 24V MODELS:

22V to 29V DC continuous, 21.6V to 31V for 10 seconds. Input current is about 0.5 amp for every 10 watts of load.

#### INPUT 48V MODELS:

44V to 56V DC continuous, 42V to 63V for 10 seconds. Input current is about 0.25 amp for every 10 watts of load.

#### SELF PROTECTION SYSTEM:

Over-power protection is provided at 70W. If the unit senses a load having initial high power requirements it enters 'Power Push' to ease the load into it's normal running mode. The input to the unit is internally fused.

#### SIZE AND WEIGHT:

207mm x 97mm footprint. Terminal models are 73mm high and socket versions are 95mm. Weight is 2.1Kg.

Made in the United Kingdom

We reserve the right to change the specification without notice

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