

PDS Design Solutions LTD

THE CUSTOM POWER SPECIALISTS . DESIGN . DEVELOPMENT . TEST . MANUFACTURE

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500 WATT BATTERY CONVERTERS

OUTPUT	60V INPUT	72V INPUT	84V INPUT
5.0V at 90A (450W)	SM5140	SM5150	SM5160
9.0V at 55.0A	SM5141	SM5151	SM5161
12.0V at 41.7A	SM5142	SM5152	SM5162
15.0V at 33.3A	SM5143	SM5153	SM5163
18.0V at 27.8A	SM5144	SM5154	SM5164
21.0V at 23.8A	SM5145	SM5155	SM5165
24.0V at 20.8A	SM5146	SM5156	SM5166
48.0V at 10.5A	SM5147	SM5157	SM5167
13.8V at 36.2A	SM5148	SM5158	SM5168
27.6V at 18.1A	SM5149	SM5159	SM5169



- **VERY HIGH CONVERSION EFFICIENCY.**
- **HIGH OUTPUT POWER IN COMPACT SIZE.**
- **REMOTE ON / OFF CONTROL.**
- **PROGRAMABLE OUTPUT VOLTAGE.**
- **PROGRAMABLE BACK-OFF FOR FUEL CELL USE.**

GENERAL DESCRIPTION: A rugged converter, generating a range of DC outputs when supplied from 60, 72 or 84V DC.

The unit has a high impedance input for remote on/off control.

The input and output are ohmically isolated, making installation very simple. The converter is isolated from chassis.

The unit is packaged in a powder coated folded metal box. Input and output is by 5mm studs on the underside of the unit. Flanges at each end raise the unit for cooling and ease of mounting.

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.

SPECIFICATION:

INPUTS

Nominal Voltage:	60V or 72V or 84V Battery by model.
Input Voltage Range:	Nominal - 11.7% to +16.7%
Current, No Load:	0.2A, 0.2A, 0.15A across range.
Efficiency (approximate):	>90%, 12V output and above.
Low Battery back-off:	Nominal - 20%, but programmable.

OUTPUTS

Voltage (10% Load): -	Nominal + 100mV \pm 50mV.
Line Regulation: -	< \pm 0.05V for a 10% input change.
Load Regulation: -	< -0.1V for a 10% to 90% load change.
Low Frequency Ripple: -	Less than 10mV pp.
Current Limit: -	Nominal plus 10%, \pm 7%.
On/Off Control: -	The unit will draw less than 0.1mA until voltage (3V to 100V) is applied to the control input.

GENERAL

Protection:	Over-current and short circuit output limit plus input fusing.
Size:	247mm x 103mm x 63mm.
Weight:	1200 grams.
Storage Temp Range:	-40 to +70C.
Operating Temp Range:	-40 to +40C.
Manufacturer	Made in UK.

We reserve the right to change this specification without notice.

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