

## 300W, Rugged DC/DC Converter with 5 Individually Fused Output Terminals for Mobile and other Heavy-Duty Applications BAP 65-5FD-24/12FT



- Field-proven rugged design
- Mobile applications
- 5 individually fused output terminals
- Conduction/convection cooled
- Full electronic protection
- Wide selection of input/output combinations

The BAP 65-5FD-24/12FT is a rugged, single output DC/DC converter that uses field proven topology to generate 300W output power. The output is distributed via five individually fused output terminals. These fuses are located externally below the terminal block and are therefore easily accessible. The unit is cooled by conduction via baseplate to a heatsinking surface and by natural convection. Designed for mobile applications, these models are fully ruggedized and conformal coated for immunity to shock, vibration, humidity, moisture, dust and insects. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a very high demonstrated MTBF. The BAP 65-5FD-24/12FT is manufactured at our plant under strict quality control. Versions to meet EN 50155 railway specifications and customized versions are also available.

### SPECIFICATIONS

<p><b>Input Voltage</b> 24Vdc nominal Operating range 21 – 30V Maximum input current: 15A Other inputs available</p>	<p><b>Output Voltage/Current</b> 12Vdc <math>\pm 0.1V/25A</math> total distributed to five fused terminals which can be protected with fuse values up to 10A. Other outputs available</p>	<p><b>Efficiency</b> 82% for the 24V/12 version</p>	<p><b>Indicators</b> None</p>
<p><b>Input Protection</b> Reverse polarity protection by Crossbar diode Internal safety fuse Inrush current limiting Varistor Low input voltages will not damage the unit</p>	<p><b>Redundancy Diode</b> None</p>	<p><b>Operating Temperature</b> -20 to +50°C for full specification</p>	<p><b>Control Input</b> None</p>
<p><b>Isolation</b> 1000VDC input to chassis 1000VDC input to output 500VDC output to chassis</p>	<p><b>Dynamic Response</b> Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p><b>Temperature Drift</b> 0.03% per °C over operating temperature range</p>	<p><b>Alarm Outputs</b> None</p>
<p><b>Standards / Approvals</b> Designed to meet EN60950 and related standards</p>	<p><b>Output Ripple / Noise</b> Better than 30mVrms or 100mVpp (20MHz BW)</p>	<p><b>Cooling</b> Conduction to customer heatsink or chassis and natural convection</p>	<p><b>Package/Dimensions (W x H x L)</b> F3: 132.1mm x 62.5mm x 289.6mm (5.2" x 2.46" 11.4") including terminal block and mounting flanges. Mounting holes are clear</p>
<p><b>EMI</b> EN55022 Class B</p>	<p><b>Output Overload Protection</b> Rectangular current limiting with short circuit protection (no hiccup). Outputs are fused with any fuse value up to 10A. Current limit is set sufficiently high to allow the fuses to blow</p>	<p><b>Environmental Protection</b> Ruggedizing Conformal coating</p>	<p><b>Weight</b> 1.8kg (3.9lb)</p>
<p><b>Switching Frequency</b> 47KHz +/- 2KHz</p>	<p><b>Output Overvoltage Protection</b> Double regulator loop. Second loop is completely stable and independent of main regulator loop OVP setting: 15V <math>\pm 1V</math></p>	<p><b>Shock/Vibration</b> Designed to meet IEC 61373 Cat 1 A&amp;B</p>	<p><b>Connections</b> 12-pole barrier-type terminal block, 3/8" spacing as follows: 2 for input (+ &amp; -) 5 for output returns 5 for fused outputs</p>
		<p><b>MTBF</b> Min. 140,000 hours @45°C calculated according to MIL-HDBK-217F Demonstrated MTBF is significantly higher</p>	<p><b>RoHS Compliance</b> Fully compliant</p>
			<p><b>Warranty</b> Two years subject to application within good engineering practice</p>

**Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.**

*Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.*



**ABSOPULSE ELECTRONICS LTD**  
110 Walgreen Road  
Ottawa, Ontario. K0A 1L0. CANADA  
Tel: (613) 836-3511 Fax: (613) 836-7488  
E-mail: [absopulse@absopulse.com](mailto:absopulse@absopulse.com)  
[www.absopulse.com](http://www.absopulse.com)