

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 that comply with EN 50155 railway specifications and customized versions are also available.

SPECIFICATIONS

<p>Input Voltage 24Vdc nominal Operating range 21 – 30V Maximum input current: 15A Other inputs available</p> <p>Input Protection Reverse polarity protection by Crossbar diode Internal safety fuse Inrush current limiting Varistor Low input voltages will not damage the unit</p> <p>Isolation 1000VDC input to chassis 1000VDC input to output 500VDC output to chassis</p> <p>Standards / Approvals Designed to meet EN60950 and related standards</p> <p>EMI EN55022 Class B</p> <p>Switching Frequency 47KHz +/- 2KHz</p>	<p>Output Voltage/Current 12Vdc ±0.1V/25A total distributed to five fused terminals which can be protected with fuse values up to 10A. Other outputs available</p> <p>Redundancy Diode None</p> <p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p>Output Ripple / Noise Better than 30mVrms or 100mVpp (20MHz BW)</p> <p>Output Overload Protection 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>Output Overvoltage Protection Double regulator loop. Second loop is completely stable and independent of main regulator loop OVP setting: 15V ±1V</p>	<p>Efficiency 82% for the 24V/12 version</p> <p>Operating Temperature -20 to +50°C for full specification</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Conduction to customer heatsink or chassis and natural convection</p> <p>Environmental Protection Ruggedizing Conformal coating</p> <p>Shock/Vibration Designed to meet IEC 61373 Cat 1 A&B</p> <p>MTBF Min. 140,000 hours @45°C calculated according to MIL-HDBK-217F Demonstrated MTBF is significantly higher</p>	<p>Indicators None</p> <p>Control Input None</p> <p>Alarm Outputs None</p> <p>Package/Dimensions (W x H x L) 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>Weight 1.8kg (3.9lb)</p> <p>Connections 12-pole barrier-type terminal block, 3/8" spacing as follows: 2 for input (+ & -) 5 for output returns 5 for fused outputs</p> <p>RoHS Compliance Fully compliant</p> <p>Warranty Two years subject to application within good engineering practice</p>
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