

200W, Rugged Conduction/Convection Cooled DC/DC Converter for Railway and other Heavy Duty Applications BAP 236R-FT Series



- Field-proven rugged design
- For train and mobile applications
- Conduction/convection cooled
- Full electronic protection
- Wide selection of input/output combinations
- N+1 redundancy available

The BAP 236R Series rugged, single output DC/DC converter uses field proven topology to generate 200W output power. It is a mature design with a track record in hundreds of applications. The standard version is rated for operation over a -25 to +70°C temperature range without derating. Cooling is via baseplate to a heatsinking surface and by natural convection. Ruggedizing and conformal coating provide added immunity to shock, vibration and humidity. An optional redundancy diode allows parallel connection to achieve higher output power or N+1 redundancy. Other options include a Form C output fail alarm and remote shutdown. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control. It meets the requirements of EN50155 for electronic equipment used on rolling stock. Customized versions are also available.

SPECIFICATIONS

<p>Input Voltage 24Vdc (14.4 – 34V) 36Vdc (22 – 51V) 48Vdc (29 - 67V) 72Vdc (43 – 101V) 96Vdc (58 – 135V) 110Vdc (66 - 154V) Other inputs upon request</p> <p>Input Protection Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit</p> <p>Isolation 1500Vdc input to chassis 3000Vdc input to output 1500Vdc output to chassis</p> <p>Standards Meets EN60950 and EN50155</p> <p>Immunity Meets criteria as requested in EN50155 and EN50121-3-2 according to: EN61000-4-2 (ESD) EN61000-4-3 (RF Immunity) EN61000-4-4 (Fast Transient) EN50155 (Surge) EN61000-4-6 (Conducted immunity) EN50155 (Voltage variation)</p>	<p>EMI EN55022 Class B and EN50121-3-2 conducted and radiated</p> <p>Switching Frequency 55kHz +/- 3kHz</p> <p>Output Voltage Any DC output up to 130Vdc</p> <p>Redundancy diode Optional</p> <p>Line/Load Regulation +/-1% from no load to full load</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 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)</p> <p>Overload Protection Current limiting with short circuit protection. Self-resetting thermostat for thermal protection</p> <p>Output Overvoltage Protection Double regulator loop</p>	<p>Efficiency 80 - 90% depending on input/output configuration</p> <p>Operating Temperature -25 to +70°C cold-plate temperature. Wider temperature ranges on request</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 IEC 61373 Cat 1 A&B</p> <p>MTBF 150,000 hours @ 45°C Demonstrated MTBF is significantly higher</p>	<p>Indicators Output ON green LED visible through the cooling slot</p> <p>Control Input Optional</p> <p>Alarm Outputs Optional</p> <p>Package/Dimensions (W x H x L) F2: 112 x 57 x 256 mm (4.43"x 2.25" x 10.08") including terminal block and mounting flanges Mounting holes are clear</p> <p>Weight 1.2 kg (2.6 lb)</p> <p>Connections 9-pole barrier type terminal block with 3/8" spacing</p> <p>RoHS Compliance Fully compliant</p> <p>Warranty Two years subject to application within good engineering practice</p>
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Enhancements to these general specifications and customizing can be accommodated upon request.

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 BAPT-approved Facility.



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