

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

- Wide range of input/output combinations
- Meets rail standards EN50155 and EN50121
- 3000Vdc isolation
- Rugged for on-board train applications
- MTBF >170,000 hours
- Field-proven design in a wide range of applications
- N+1 redundancy available



The BAP 236R Series of DC/DC converters use a field proven high frequency push-pull topology to generate 200W output power with convection/conduction cooling. Any DC input/output configuration is possible. An optional redundancy diode allows parallel connection to achieve higher output power or N+1 redundancy. The chassis-mount design features low component count and high efficiency. The use of high quality components and rigorous quality control results in a demonstrated MTBF exceeding 1,000,000 hours confirmed by a track-record established in hundreds of applications. The BAP 236R is fully ruggedized and conformal coated for applications requiring higher immunity to shock, vibration, humidity, moisture, dust and insects. Other options include a Form C output fail alarm and remote shutdown.

SPECIFICATIONS

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| <p>Input Voltage 24Vdc (14.4 – 37V) 36Vdc (22 – 55V) 48Vdc (28 – 74V) 72Vdc (42 – 110V) 110Vdc (57 – 168V) 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 Ambient Temperature -25 to +70°C cold-plate temperature</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 Heavy ruggedizing and conformal coating</p> <p>Shock/Vibration Designed to meet IEC 61373 Cat 1 A&B and Cat 2 as a min.</p> <p>MTBF 170,000 hours @ 45 °C Demonstrated MTBF exceeds 1,000,000 hours at typical operating temperatures</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: 112.5mm x 57.2mm x 254.0mm (4.43"x 2.25"x 10") including terminal block and mounting flanges Mounting holes are clear</p> <p>Weight 1.13 kg (2.5 lb)</p> <p>Connections 9-pole barrier type terminal block with 3/8" spacing</p> <p>RoHS Compliance According to requirements</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. 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.



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