

200W, Rugged, DC-DC Plug-in module for Railway and other Heavy Duty Applications BAP 236R-EH Series



- Rugged, field-proven design
- For train and mobile applications
- Convection cooled
- Full electronic protection
- Wide input range (EN50155)
- N+1 redundancy
- 3U x 220mm Eurocard (Plug-in) module

This rugged, industrial quality plug-in converter utilizes field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. A built-in redundancy diode allows parallel connection to achieve higher output power or N+1 redundant operation, including hot-insertion. The series is rated for operation over a -25 to +70°C temperature range without derating, with natural convection cooling. Heat generating components are installed on an aluminum heatsink block, which is connected to the heatsink plate on the side of the module. This also provides exceptional mechanical ruggedness. The input and output are filtered for low noise. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control. The unit meets the requirements of EN50155 for electronic equipment used on railway rolling stock. It is manufactured at our plant under strict quality control. 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 Designed to meet EN60950-1 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 EN50121-3-2</p> <p>Switching Frequency 55kHz ±3kHz</p> <p>Output Voltage Any DC output up to 130Vdc</p> <p>Redundancy diode Installed</p> <p>Line/Load Regulation Typically ±1% from no load to full load including output redundancy diode</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 with convection cooling. Unimpeded airflow required.</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Convection by natural air movement</p> <p>Environmental Protection Ruggedizing Conformal coating</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 – 95% non-condensing</p> <p>MTBF 170,000 hours @ 45 °C Demonstrated MTBF is significantly higher.</p>	<p>Indicators Output ON green LED on the front panel</p> <p>Control Input Optional</p> <p>Alarm Outputs Optocoupler alarm output (C-E low-normal)</p> <p>Package/Dimensions (H x W x D) 3U x 14HP x 220mm Eurocard plug-in module</p> <p>Weight 1.13 kg (2.5 lb)</p> <p>Connections H15 connector</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice</p>
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The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

OEM of industrial and railway AC/DC power supplies and battery chargers, DC/DC converters, DC-AC sine-wave inverters, phase & frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom & standard. ABSOPULSE is a BABT-approved facility



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