

150W, Rugged DC/DC Converter for Railway and other Demanding Environments

DCW 150R Series



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

The DCW 150R Series rugged, single output DC/DC converter use a field proven topology to generate 150W output power. It is a mature design with a track record in hundreds of applications. The series is rated for operation over a -25 to +70°C temperature range without derating. It is cooled by conduction via baseplate to a heatsinking surface and by natural convection. 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 demonstrated MTBF exceeding 1,000,000 hours. The DCW 150R is manufactured at our plant under strict quality control. Customized versions are also available.

SPECIFICATIONS

<p>Input Voltage 48Vdc (28 – 74V) 72Vdc (42 – 110V) 110Vdc and 96Vdc (57 – 168V) Other inputs on request</p> <p>Input Protection Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p>Isolation 1500Vdc input to chassis 3000Vdc input to output 1500Vdc output to chassis</p> <p>Standards Designed to meet IEC60950 and EN50155</p> <p>Immunity Meets criteria of EN50155 and EN50121-3-2 including: EN 61000-4-2 (ESD) EN 61000-4-3 (RF Immunity) EN 61000-4-4 (Fast Transients) EN 50155 (Surge) EN 61000-4-6 (Conducted Imm.) EN 50155 (Voltage Variations)</p>	<p>EMI EN55022 Class B and EN50121-3-2 conducted and radiated</p> <p>Switching Frequency 47KHz +/- 2KHz</p> <p>Output Voltage/Current 12V/12A, 24V/6A, 48V/3A or 110A/1.3A are standard. Consult factory for other voltages</p> <p>Redundancy diode None</p> <p>Line/Load Regulation 7/-1% combined</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 hiccup type short circuit protection Thermal shut-down with automatic recovery in case of insufficient cooling.</p>	<p>Output Overvoltage Protection Double regulator loop and transorb.</p> <p>Efficiency Min 80% at full load</p> <p>Operating 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 Ruggedizing Conformal coating</p> <p>Shock/Vibration Designed to meet IEC 61373 Cat 1 A&B</p> <p>Humidity 5 – 95% non-condensing</p> <p>MTBF Min. 170,000 hours @45°C</p>	<p>Indicators Green output ON LED visible through cooling slots</p> <p>Control Input None</p> <p>Alarm Output None</p> <p>Package/Dimensions (W x H x L) F1: 113 x 50.8 x 198.1 mm (4.45" x 2.0" x 7.8") including terminal block and flanges. Mounting holes are clear</p> <p>Weight 0.8kg (1.8 lbs)</p> <p>Connections 9-pole barrier-type terminal block, 3/8" spacing</p> <p>RoHS Fully compliant</p> <p>Warranty Two years subject to application within good engineering practice</p>
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Enhancements to these general specifications can be accommodated upon request.

*Designer and manufacturer of quality converters, inverters, 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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