

60W, High Quality, Low Cost DC/DC Converter (3" x 5" PCB) DCL 60 Series



- Cost optimized
- Rugged industrial quality
- Single regulated output
- Full electronic protection
- Convection/conduction cooled
- Field-proven design in a wide range of applications

This rugged, industrial quality DC/DC converter is a simplified version of the field-proven DCW 100 Series and is built on a 3" x 5" PCB. It is a mature design with a track record in numerous applications. Cooling is by conduction via the semi-open enclosure to a heat-sinking surface and by natural convection. Low component count, large design headroom, and the use of components with established reliability result in a high MTBF. Fully enclosed or open PCB versions are available. Heavy ruggedizing and conformal coating are available for operation in extreme environments. The unit is manufactured at our plant under strict quality control. The unit is also available in versions fully compliant with railway standard EN 50155.

SPECIFICATIONS

<p>Input Voltage 24V, 36V, 48V, 110V or 125Vdc as standard $\pm 15\%$ Other inputs are available on request</p>	<p>Output Voltage/Current 12V/5A, 24V/2.5A, 48V/1.25A, 125V/0.5A are standard. Other voltages on request</p>	<p>Efficiency Output voltage dependent. Typically 80% at full load</p>	<p>Indicators None on standard version</p>
<p>Input Protection Inrush current limiting Varistor Reverse polarity Internal safety fuse Lower voltage than specified minimum input will not damage unit</p>	<p>Redundancy Diode None</p>	<p>Operating Temperature Range 0°C to 50°C for full specification Extended rating depends on available conduction and convection.</p>	<p>Control Input None</p>
<p>Isolation 1500VDC input to chassis, 1500VDC input to output, 500VDC output to chassis Or according to requirements</p>	<p>Line/Load Regulation Better than $\pm 5\%$ combined from 10% load to full load</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Output None</p>
<p>Standards Designed to meet EN 60950 and corresponding UL and CSA standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Cooling Conduction to customer heatsink or chassis and natural convection</p>	<p>Package/Dimensions PCB Size: 3" x 5" Component height: 1.5" In chassis (W x H x L): FZ: 114 x 48 x 127 mm (4.5" x 1.9" x 5") including mounting flanges. Mounting holes are clear</p>
<p>EMI EN 55022 Class B</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>Environmental Protection Basic ruggedizing Heavy ruggedizing and conformal coating as option</p>	<p>Weight Open PCB: 0.23kg (0.5 lb) In Chassis: 0.45kg (1 lb)</p>
<p>Switching Frequency 47kHz +/- 2kHz</p>	<p>Output Overload Protection Current limiting with short circuit protection (hiccup mode)</p>	<p>Vibration/Shock IEC 61373 Cat 1 A&B</p>	<p>Connections Header pins with 0.156" spacing 90° header pins with 0.156" spacing as option Barrier type terminal block with 3/8" spacing also available</p>
	<p>Output Overvoltage Protection Transorb clamp on output</p>	<p>Humidity 5 – 95% non-condensing</p>	<p>RoHS Compliance Fully compliant</p>
		<p>MTBF 180,000 hours @ 45°C (calculated) Demonstrated MTBF is significantly higher</p>	<p>Warranty Two years subject to application within good engineering practice</p>

Enhancements to these general specifications can be accommodated upon request. Specifications subject to change.

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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