

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



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

The DCL 60 Series generates 60W output power and it was specially designed to be very competitive in cost, without jeopardizing any quality or reliability features. The series was designed for utmost simplicity and lowest component count, without the usual optional features. As part of the purist design, the usual complex feedback circuitry was simplified, which provides +/-5% (or better) regulation, fully sufficient for most applications. The low component count results in a very high MTBF, over 180,000 hours 45°C. Other traditional Absopulse quality features, such as conduction cooling of all major heat generating components, large design headroom and strict use of established reliability components, were rigorously maintained, which is an additional contributor to the high reliability. Standard input voltages are available in a range of 20V to 160V, and output voltages in a 3.3V to 125Vdc range. Other voltages upon request. The mechanical configuration is a semi-open design for hardware cost reduction. Fully enclosed or open PCB versions are available. The rugged design allows applications where high shock and vibration are a concern, such as machines, generators, transportation, etc. The unit is also available in versions fully compliant with railway standard EN 50155.

SPECIFICATIONS

<p>Input Voltage Any voltage in the range of 20V...160V, +/-15% Wider range is 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>Operating Temperature Range 0 to +50°C. Extended rating depends on available conduction and convection.</p>	<p>Control Input None</p>
<p>Input Protection Inrush current limiting Varistor Reverse polarity Internal safety fuse Lower voltage than specified input min. will not damage unit</p>	<p>Line/Load Regulation Better than +/- 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>Isolation 1500VDC input to chassis, 1500VDC input to output, 500VDC output to chassis Or according to requirements</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>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 1.89" x 5") including mounting flanges. Mounting holes are clear</p>
<p>Standards Designed to meet EN 60950 and corresponding UL and CSA standards</p>	<p>Output Overload Protection Current limiting with short circuit protection (hiccup mode)</p>	<p>Environmental Protection Basic ruggedizing</p>	<p>Weight Open PCB: 0.23kg (0.5lbs) In Chassis: 0.45kg (1lbs)</p>
<p>EMI EN 55022 Class B</p>	<p>Output Overvoltage Protection Transzorb clamp on output</p>	<p>Vibration/Shock Designed to meet IEC 61373 Cat 1 A&B</p>	<p>Connections Header pins with 0.156" spacing 90° header pins with 0.156" spacing as option</p>
<p>Switching Frequency 47kHz +/- 2kHz</p>	<p>Efficiency Output voltage dependent. Typically 80% at full load</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>
		<p>Indicators None on standard version</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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