

DCCL60 Series DC/DC Voltage Converter



incl. DIN Rail Option

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Applications

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

DC/DC Converters

DCCL60 Single-Output DC Converter

Description

The DCCL 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 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.

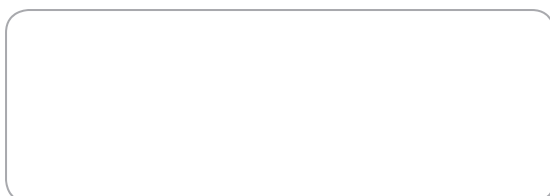
Features

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

Specifications (Specifications Subject to Change Without Notice)

Input Voltage range	Any voltage in the range of 20V...160V, +/-15% Wider range is available on request
Input Protection	Inrush current limiting Varistor Reverse polarity Internal safety fuse Lower voltage than specified input min. will not damage unit
Input Isolation	1500VDC input to chassis 1500VDC input to output 500VDC output to chassis
Output Voltages	12V / 5A or 24V / 2.5A or 48V / 1.25A or 125V / 0.5A are standard Other voltages on request
Standards	Designed to meet EN 60950 and corresponding UL and CSA standards
Line / Load Regulation	Better than +/- 5% combined from 10% load to full load
Output Overvoltage Protection	Transzorb clamp on output
Output Overload Protection	Current limiting with short circuit protection (hiccup mode)
Efficiency	Output voltage dependent Typical 80% at full load
EMI	EN 55022 Class B
Switching Frequency	47kHz +/- 2kHz
Output Ripple/Noise	Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)
Operating Temperature	0 to +70°C Full output power up to +50°C, > 50°C derating 2.5% per 1°C (50% Pnom @ 70°C)
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction to customer heatsink or chassis and natural convection
Environmental Protection	Basic ruggedizing
Vibration/Shock	Designed to meet IEC 61373 Cat 1 A&B
Humidity	5 – 95% non-condensing
MTBF	180,000 hours @ 45°C (calculated) Demonstrated MTBF is significantly higher
Indicators	None on standard version
Control Input	None
Alarm Output	None
Connections	Header pins with 0.156" spacing 90° header pins with 0.156" spacing as option
Dimensions	PCB Size: 3" x 5", Component height: 1.5" In chassis (WxHxL): FZ: 114 x 48 x 127 mm (4.5" x 1.89" x 5") including mounting flanges Mounting holes are clear
Weight	Open PCB: 0.23kg (0.5lbs) In Chassis: 0.45kg (1lbs)
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



RIPEnergy®

The power conversion company

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