

DCC319 Series DC/DC Voltage Converter



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

DCC319 Single-Output DC Converter

Description

The DCC319 Series rugged, industrial quality DC/DC converter uses field-proven topology to generate 500W output power, or 600W if forced air is available.

This is a mature design with a track record in hundreds of applications.

Cooling is via baseplate to a heatsinking surface and by natural convection.

Low component count, large design headroom, and the use of components with established reliability result in a high MTBF.

An optional built-in redundancy diode allows for parallel and N+1 operation.

Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration and humidity.

It is manufactured at our plant under strict quality control.

Features

- Compact size
- Single regulated and adjustable output
- 500W output power
- Full electronic protection
- Rugged industrial quality
- Field-proven design
- Also available as plugin module
- N+1 redundancy available
- 2 years parts and labour warranty

Specifications (Specifications Subject to Change Without Notice)

Input Voltage range	Any single DC input from 12V to 125Vdc (12Vdc input with reduced power) Consult factory for other voltages
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Input Isolation	According to input voltage minimum of: 1000VDC input to chassis, 1500VDC input to output, 500VDC output to chassis
Output Voltages	Any single DC output from 12V to 125Vdc (500W) Consult factory for other voltages
Redundancy diode	Available as option
Line / Load Regulation	± 1% combined from zero load to full load
Output Overvoltage Protection	Double regulator loop completely stable and independent of main loop
Output Overload Protection	Rectangular current limiting with hiccup mode short-circuit protection. Thermal shutdown in case of insufficient cooling (self resetting)
Efficiency	Typically 80% at full load depending on input/output combination
EMI	EN 55022 Class A as a minimum
Switching Frequency	80kHz +/- 5kHz
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
Output Ripple/Noise	Better than 1% of output voltage peak to peak or 0.2% Vrms (20MHz BW)
Operating Temperature	0 to + 60°C cold plate temperature for full specification Extended temperature ranges available
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction cooling via base plate and convection
MTBF	160,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	Optional
Control Input	Optional
Alarm Outputs	None on standard version
Environmental Protection	Basic ruggedizing Heavy ruggedizing and conformal coating as option
Connections	9 pole barrier type terminal block with 3/8" spacing
Dimensions	F4: 130 x 62 x 353 mm including terminal block and flanges. Mounting holes are clear
Weight	2.2 kg
Standards	Designed to meet EN60950 and related standards
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



RIPEnergy®

The power conversion company

RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Ph +41-(0)43-818 53 85
Fax +41-(0)43-818 53 87
www.ripenergy.ch