

DCHV2000 Series DC/DC Voltage Converter



Benefits

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

Applications

- Trams, light Rail, Metros
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems

DC/DC Converters

DCHV2000 Single-Output DC Converter

Description

This basic rugged, industrial quality power converter system uses field proven modules to generate 2kW output power.

To ensure high reliability and long operating life, all critical components on the primary side are designed and tested for corona inception levels significantly higher than the operating voltages.

Built-in fans provide sufficient airflow for operation at the specified temperature without de-rating.

The fans draw air into the unit and the exhaust exits at the rear of the unit.

It features full electronic protection and low output noise.

Large design headrooms, and the use of components with established reliability result in a high MTBF.

The unit is manufactured at our plant under strict quality control.

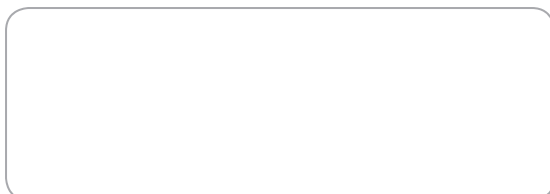
Features

- Single regulated output
- Rugged construction
- Full electronic protection
- Fan cooling
- Field-proven design
- N+1 redundancy available

Specifications (Specifications Subject to Change Without Notice)

Input Voltage	600VDC (450V – 800V range) Input current: 5.5A max.
Input Protection	Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than specified input min. will not damage unit
Isolation	3000VDC input to chassis on each unit 3000VDC input to output on each unit 5600VDC type test 500VDC output to chassis
Output Voltages	12V/130A, 24V/80A or 48V/40A Other outputs on request Output is floating; either terminal can be grounded
Redundancy Diode	Included for the separation of the internal modules
Line / Load Regulation	Better than +/- 1.5% combined from zero load to full load
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
Output Overvoltage Protection	Second regulator loop, completely stable and independent of main regulator loop
Output Overload Protection	Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient airflow (self-resetting)
Efficiency	Min 80% at full load depending on input/output configuration
Standards	Designed to meet IEC61010-1 Ed. 2, IEC 62103 Ed. 1, UL 508C and related standards
EMI	EN55022 Class A with margins conducted and radiated
Switching Frequency	55kHz +/- 3kHz
Output Ripple/Noise	Better than 0.2% Vrms and 1% Vpp of the output voltage (@ 20MHz BW)
Operating Temperature	0°C to 55°C for full specification Wider range available as option
Temperature Drift	0.03% per °C over operating temperature range
Cooling	By two built-in fans
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating available as an option
Vibration/Shock	IEC 61373 Cat 1 A&B
Humidity	5 – 95% non-condensing
MTBF	85,000 hours @45°C (fans not included) Demonstrated MTBF is significantly higher
Indicators	Optional
Control Input	None
Alarm Output	Optional
Connections	Input: Terminal block Output: Threaded studs
Dimensions	187x132x407 mm including connectors Can be chassis or 19" rack mounted
Weight	7kg
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



RIPEnergy®

The power conversion company

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