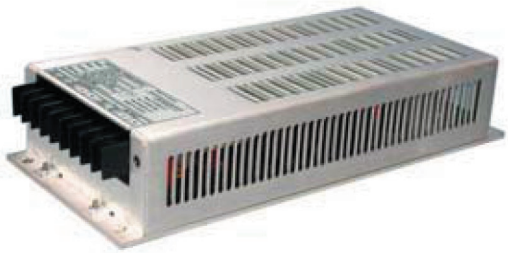
DCHV150 Series DC/DC Voltage Converter



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
- Fuel Cells

DC/DC Converters

DCHV150 Single-Output DC Converter

Description

This rugged, industrial quality DC/DC converter series uses field proven design topology to generate the specified output power.
It is a mature design with a track record in numerous applications.
The unit accepts a 600Vdc input voltage.
To ensure high reliability and long operating life, all critical components on the primary side are designed and tested for corona inception levels that are significantly higher than the operating voltages.
Full electronic protection, low component count, large design headrooms, and the use of components with established reliability result in a high MTBF.
Cooling is via base plate to a heat-sinking surface and by natural convection.
Customized versions are also available.
The unit is manufactured at our plant under strict quality control.

Features

- Rugged industrial quality
- Wide DC-input voltage range
- Field-proven design
- Full electronic protection
- Conduction/convection cooled (no fans)
- N+1 redundancy available

Specifications *(Specifications Subject to Change Without Notice)*

Input Voltage	600Vdc nominal 450 - 800Vdc operating range Other input range on request
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than specified input min. will not damage unit
Isolation	3000VDC input to chassis 3000VDC input to output 5600VDC type test 500VDC output to chassis
Standards	Designed to meet EN60950 and related standards
EMI	EN55022 Class A with margins
Switching Frequency	47kHz +/- 2kHz
Output Voltage	24V or 48Vdc Output is floating; either terminal can be grounded Other outputs on request
Redundancy Diode	None Available as option
Line / Load Regulation	+/-1% 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 Ripple/Noise	Better than 0.2% Vrms or 1% Vpp of the output voltage (20MHz BW)
Output Overload Protection	Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient airflow (self-resetting)
Output Overvoltage Protection	Second regulator loop, completely stable and independent of main regulator loop
Efficiency	Typically 80% at full load
Operating Temperature	0°C to 50°C cold plate temperature for full specification without derating Extended temperature ranges available
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction to customer heatsink or chassis and natural convection
Environmental Protection	Basic ruggedizing and conformal coating Heavy ruggedizing available on request
Vibration/Shock	IEC 61373 Cat 1 A&B
Humidity	5 – 95% non-condensing
MTBF	130,000 hours @ 45°C Demonstrated MTBF is significantly higher
Indicators	Green “Output ON” LED visible through cooling slots
Control Input	None Available as option
Alarm Outputs	None Available as option
Dimensions	F2: 114 x 58 x 256 mm including terminal block and flanges. Mounting holes are clear
Weight	1.2 kg
Connections	Barrier type terminal block with 3/8” spacing
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:

RIPEnergy®

The power conversion company

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