



DCHV2000 DC/DC CONVERTER

SERIES DCHV2000

This rugged, industrial quality DC/DC converter utilizes field-proven topology to generate 2000W output power. It is a mature design with a track record in numerous applications.

The input and output are filtered for low noise.

High quality built-in fans provide sufficient airflow for operation within the specified temperature range without de-rating.

The fans draw air into the unit, and exhaust at the terminal side of the unit. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate.

Conformal coating provides protection against humidity and airborne contaminants.

Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF.

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

Customized versions are also available.



High frequency technology



Light weight, compact size



Full electronic protection



Optional Control input



Optional Extended temperature range



Optional Output fail alarm (Form C)

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

FEATURES

- Rugged industrial quality
- High DC-input voltage
- Wide DC-input voltage range
- Custom inputs available upon request
- Field-proven design
- Fan cooling
- Full electronic protection
- N+1 redundancy
- Single output
- Custom outputs available

SPECIFICATIONS

Input Voltage	600Vdc nominal 450V- 800V operating range Other input range on request
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	3000Vdc input to chassis 3000Vdc input to output 5600Vdc type test 1000Vdc output to chassis
Switching Frequency	55kHz \pm 3kHz
Output Voltage	24V, 36V, 48V or 110Vdc Output is floating; either terminal can be grounded Other outputs on request
Redundancy Diode	Installed internally for separation for the internal modules
Load/Line Regulation	\pm 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 1% of output voltage peak to peak or 0.2% Vrms (20MHz BW)
Efficiency	Min. 80% at full load depending on input/output configuration
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
Standards	Designed to meet EN60950-1 and related standards
EMI	EN55022 Class A with margins

Operating Temperature	0°C to 50°C cold plate temperature for full specification without derating Extended temperature ranges available
Humidity	5 - 95% non-condensing
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Forced air by high quality built-in fans and conduction to customer heat sink or chassis. Fans draw air into the unit.
Environmental Protection	Basic ruggedizing and conformal coating Full ruggedizing available as an option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	3U3: 132 x 187 x 407 mm including terminal block and mounting flanges Mounting holes are clear
Weight	7 Kg
Connections	Input: Terminal block Output: Threaded studs, M6 or terminal block
MTBF	85,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None Available as option
Control Input	None Available as option
Alarm output	None Available as option
RoHS Compliance	Fully compliant
Warranty	2 years

