700Vdc Input, 50W Rugged Industrial Quality DC/DC Converter
HVI 09-FT Series

- Rugged, industrial quality
- Field-proven design
- Convection cooled
- Full electronic protection
- Wide DC-input voltage range
- N+1 redundancy available

The HVI 09 Series rugged, industrial quality DC/DC converter uses field proven design topology to generate 50W output power. It is a mature product with a track record in numerous applications. The unit accepts a 700Vdc (600V – 800Vdc range) 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, which are significantly higher than the operating voltages. Low component count, large design headroom, and the use of components with established reliability result in a high MTBF. Cooling is via baseplate to a heatsinking surface and by natural convection. Customized versions are also available. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage
700Vdc
600V- 800V range

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 on each unit
3000Vdc input to output on each unit
5600Vdc type test
500Vdc output to chassis

Standards
Designed to meet EN60950 and corresponding UL and CSA standards

EMI
EN 55022 Class A minimum

Switching Frequency
80kHz ± 5kHz

Output Voltage/Current
24Vdc/2A or 48Vdc/1A
Output is floating; either terminal can be grounded
Other outputs on request

Redundancy Diode
None
Available as option

Line/Load Regulation
+/-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 Ripple/Noise
Better than 0.2% rms or 1% pp (@ 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
Transzorb across the output

Efficiency
Typically 80% at full load

Operating Temperature Range
0°C to 5°C for full specification
Extended operating temperature range available.

Humidity
5 – 95%, non condensing

Temperature Drift
0.03% per °C over operating temperature range

Cooling
Conduction to customer heatsink or chassis and natural convection

Environmental Protection
Ruggedizing
Conformal coating

Shock/Vibration
IEC 61373 Cat 1 A&B

MTBF
130,000 hours @ 45 °C
Demonstrated MTBF is significantly higher.

Indicators
Green "Output ON" LED visible through cooling slots

Control Input
None

Alarm Outputs
None.

Package/Dimensions (W x H x L)
F1: 112 x 51 x 201 mm
(4.43" x 2" x 7.9") including terminal block and flanges.
Mounting holes are clear

Weight
0.8kg (1.8 lbs)

Connections
9 pole barrier type terminal block with 3/8" spacing

RoHS Compliance
Fully compliant

Warranty
Two years subject to application within good engineering practice

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.

ABSOPULSE ELECTRONICS LTD.

ABSOPULSE ELECTRONICS LTD
110 Walgreen Road
Ottawa, Ontario. K0A 1L0. CANADA
Tel: +1-613-836-3511 Fax: +1-613-836-7488
E-mail: absopulse@absopulse.com
http://www.absopulse.com