

150W, High Input Voltage DC/DC Converter (400Vdc to 800Vdc Input Voltage) HVI 109-FT Series

- Field-proven rugged design
- Harsh environment applications
- Convection cooled
- Full electronic protection
- Wide DC-input voltage range
- N+1 redundancy available



The HVI 109 Series rugged, single output DC/DC converter uses field-proven double-conversion topology to generate 150W output power. It is a mature design with a track record in several of applications. The unit is equipped with non-destructive reverse polarity protection on the input, surge protection and high-grade input/output filtering. The series is rated for operation over a -25 to +55°C temperature range without derating. It is cooled by natural convection. This model is ruggedized and conformal coated for immunity to shock, vibration, humidity, moisture, dust and insects. An optional redundancy diode allows parallel connection to achieve higher output power or N+1 redundancy. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a high demonstrated MTBF. The HVI 109 is manufactured at our plant under strict quality control. Versions that meet EN 50155 railway specifications are also available.

SPECIFICATIONS

<p>Input Voltage 600Vdc Range 400 ...800Vdc Input current: 0.3A max Other inputs upon request</p>	<p>Output Voltage 24Vdc $\pm 0.1V/6A$ Output is floating; either terminal can be grounded Other outputs upon request</p>	<p>Efficiency Min. 80% at full load</p>	<p>Indicators Optional</p>
<p>Input Protection Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit</p>	<p>Redundancy diode Optional</p>	<p>Operating Temperature -25 to +55°C with proper airflow</p>	<p>Control Input None</p>
<p>Isolation 3000VDC input to chassis 4300VDC input to output, 5600 type test 500VDC output to chassis</p>	<p>Line/Load Regulation $\pm 1\%$ from no load to full load $\pm 3\%$ version with higher MTBF also available</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Optional (1 terminal only) Contact closure to output return</p>
<p>Standards Designed to meet EN60950 and corresponding UL and CSA standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Cooling Conduction to customer heatsink or chassis and natural convection</p>	<p>Package/Dimensions (W x H x L) F2: 114 x 57 x 256 mm (4.5" x 2.3" x 10.1") including terminal block and mounting flanges Mounting holes are clear</p>
<p>EMI EN55022 Class A as a minimum</p>	<p>Output Ripple/Noise Better than 50mVrms or 250mV peak to peak (20MHz BW)</p>	<p>Environmental Protection Ruggedizing Conformal coating</p>	<p>Weight 1.13 kg (2.5 lb)</p>
<p>Switching Frequency 83kHz ± 5kHz</p>	<p>Output Overload Protection Rectangular current limiting with short-circuit protection Current Limit: 6A $\pm 0.3A$</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Connections 9-pole barrier type terminal block with 3/8" spacing</p>
	<p>Output Overvoltage Protection Internal clamp and transzorb on output</p>	<p>MTBF 130,000 hours @ 45 °C Demonstrated MTBF is significantly higher.</p>	<p>RoHS Compliance Fully compliant</p>
			<p>Warranty Two years subject to application within good engineering practice</p>

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
110 Walgreen Road
Ottawa, Ontario. K0A 1L0. CANADA
Tel: (613) 836-3511 Fax: (613) 836-7488
E-mail: absopulse@absopulse.com
www.absopulse.com