

600Vdc Input, 300W Rugged Industrial Quality DC/DC Converter/Charger HVI 300-600/14-F3



- Rugged industrial quality
- Field-proven design
- Full electronic protection
- Conduction/convection cooling
- High input voltage
- Wide DC-input voltage range

The HVI 300-600/14-F3 rugged, industrial quality DC/DC converter/battery charger uses field-proven technology to generate 300W output power. An internal output separation diode allows the unit to be used for float charging a 12V battery. It is equipped with non-destructive reverse polarity protection on the input, surge protection and high-grade input/output filtering. Cooling is combined; by conduction to base plate, and by convection. Ruggedizing and conformal coating provide added immunity to shock, vibration and humidity for mobile applications. Low component count, large design headroom, and the use of components with established reliability result in a high MTBF. This unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage 600Vdc Range 400 - 750Vdc Input current: 1A max</p>	<p>Output Voltage 13.8Vdc \pm 0.1V / 25A Output is floating; either terminal can be grounded.</p>	<p>Efficiency 80% at full load</p>	<p>Indicators None.</p>
<p>Input Protection Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than specified minimum input will not damage unit</p>	<p>Output separation diode Installed internally</p>	<p>Operating Temperature Range 0°C to +55°C for full specification</p>	<p>Control Input None.</p>
<p>Isolation Input to chassis: 3000Vdc Input to output: 3000Vdc 5600Vdc type test Output to chassis: 500Vdc</p>	<p>Line/Load Regulation \pm 1.5% combined from zero load to full load including separation diode</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Outputs Not installed</p>
<p>Standards Designed to meet EN60950-1 and corresponding standards and requirements for CE marking</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 base plate and natural convection</p>	<p>Package/Dimensions (W x H x L) F3: 132 x 64 x 300 mm (5.2" x 2.5" x 11.8") including terminal block and mounting flanges Mounting holes are clear</p>
<p>EMI EN55032 Class A</p>	<p>Output Ripple/Noise Better than 30mVrms and 200mVpp (@ 20MHz BW)</p>	<p>Environmental Protection Ruggedizing Conformal coating</p>	<p>Weight Approx.: 2kg (1.4lbs)</p>
<p>Switching Frequency 55kHz \pm 5kHz</p>	<p>Output Overload Protection Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient airflow (self-resetting) Current Limit: 27A \pm 1.5A</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Connections Input/output: 12-pole barrier type terminal block with 3/8" spacing</p>
	<p>Output Over-voltage Protection Second regulator loop, completely stable and independent of main regulator loop OVP limit: 15V \pm 1V</p>	<p>Humidity 5 - 95% non-condensing</p>	<p>RoHS Compliance Fully compliant</p>
		<p>MTBF 130,000 hours @ 45 °C</p>	<p>Warranty Two years subject to application within good engineering practice</p>

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

Designer and manufacturer of custom and standard switch-mode power supplies, battery chargers, dc/dc converters, sine wave inverters, complete power systems with plug-in modules for 19" and 23" racks and DC-input fluorescent lamp inverters, since 1982. ABSOPULSE is a BABT-approved facility.



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