

600Vdc Input, 150W Rugged Industrial Quality DC-DC Converters with Wide Input Range HVI 150-F2 Series

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



The rugged, high input voltage, industrial quality DC-DC converters utilize field proven design topology to generate the specified output power. 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. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. An optional redundancy diode allows N+1 redundancy. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control. The industrial quality design can also be adapted for railway and solar applications.

SPECIFICATIONS

<p>Input Voltage 600Vdc nominal 450V- 800V operating range Other input range on request</p> <p>Input Protection Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p>Isolation 3000Vdc input to chassis 3000Vdc input to output 5600Vdc type test 500Vdc output to chassis</p> <p>Standards Designed to meet EN60950-1 and corresponding standards</p> <p>EMI EN55032 Class A with margins</p> <p>Switching Frequency 47kHz ±2kHz</p>	<p>Output Voltage 24Vdc or 48Vdc Output is floating; either terminal can be grounded Other outputs on request</p> <p>Redundancy Diode None Available as option</p> <p>Line/Load Regulation ±1% combined from zero load to full load</p> <p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p>Output Ripple/Noise Better than 0.2% rms or 1% pp of the output voltage (20MHz BW)</p> <p>Output Overload Protection Rectangular current limiting with hiccup-type short-circuit protection Thermal shutdown in case of insufficient airflow (self-resetting)</p> <p>Output Overvoltage Protection Second regulator loop, completely stable and independent of main regulator loop</p>	<p>Efficiency Typically 80% at full load</p> <p>Operating Temperature Range 0°C to 50°C cold plate temperature for full specification without derating Extended temperature ranges available.</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Conduction to customer heatsink or chassis and natural convection</p> <p>Environmental Protection Basic ruggedizing and conformal coating Heavy ruggedizing available on request</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 – 95%, non condensing</p> <p>MTBF 130,000 hours @ 45 °C Demonstrated MTBF is significantly higher.</p>	<p>Indicators Green “Output ON” LED visible through cooling slots</p> <p>Control Input None Available as option</p> <p>Alarm Outputs None. Available as option</p> <p>Package/Dimensions (W x H x L) F2: 112 x 57 x 254 mm 4.43" x 2.25" x 10" includes baseplate, excludes connectors. Mounting holes are clear</p> <p>Weight 1.2 kg (2.6 lb)</p> <p>Connections 9-pole, barrier type terminal block with 3/8" spacing</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice</p> <p>Terminal Block Pin-Out</p>
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DC OUTPUT			GND	DC INPUT				
NOT USED	+	-	⊥	NOT USED	+	NOT USED	-	NOT USED
1	2	3	4	5	6	7	8	9

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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