

600Vdc Input, 2kW Rugged, Industrial Quality DC/DC Converter HVI 2K-3U3



- Rugged industrial quality
- High input voltage
- Wide DC-input voltage range
- Full electronic protection
- Cooling by high quality built-in fans

This rugged, high input voltage, industrial quality DC-DC converter utilizes field proven technology to generate the required output power. It is a mature design with a track record in numerous applications. The unit is built with field proven internal modules, one FID 2000 and two KHI 2000. 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. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage 600Vdc nominal 450V – 800V operating range Other input range on request</p> <p>Input Protection Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p>Isolation 3000Vdc input-chassis 3000Vdc input-output 5600Vdc type test 1000Vdc output-chassis</p> <p>Standards Designed to meet EN 60950-1 and related standards</p> <p>EMI EN55032 Class A with margins</p> <p>Switching Frequency 55kHz ±3kHz</p>	<p>Output Voltage 24V, 36V, 48V or 110Vdc Other outputs on request Output is floating; either terminal can be grounded</p> <p>Redundancy Diode Installed internally for separation for the internal modules</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% Vrms or 1% Vpp of the output voltage (20MHz BW)</p> <p>Output Overload Protection Rectangular current limiting with short-circuit protection (no hiccup) 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 Min 80% at full load depending on input/output configuration</p> <p>Operating Temperature Range 0°C to 50°C for full specification Wider range available as option</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Forced air by high quality built-in fans and conduction to customer heat sink or chassis. Fans draw air into the unit.</p> <p>Environmental Protection Basic ruggedizing and conformal coating Full ruggedizing available as an option</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 – 95% non-condensing</p> <p>MTBF 85,000 hours @45 °C (fans excluded) Demonstrated MTBF is significantly higher.</p>	<p>Indicators None Available as option</p> <p>Control Input None Available as option</p> <p>Alarm Outputs None Available as option</p> <p>Package/Dimensions (H x W x D) 3U3: 132 x 187 x 407 mm 5.2 x 7.4 x 16" including terminal block and mounting flanges Mounting holes are clear</p> <p>Weight Approx 7 kg (15 lb)</p> <p>Connections Input: Terminal block Output: Threaded studs, M6 or terminal block</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice. Contamination related failures and shipping cost excluded.</p>
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The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

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



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>