

## 1000VA Rugged, Industrial Quality DC-AC Inverter with Sine Wave Output Voltage CSI 1K-3U2, CSI 1K-3U3 Series

- Sinusoidal output voltage
- Rugged, field-proven design
- Filtered input
- Cooling by internal fans
- Full electronic protection



This rugged, industrial quality DC-AC inverter utilizes field-proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. It is a mature design with a track record in numerous applications. The inverter is built with internal power modules. The DC-DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC-AC inverter to generate the required AC output. High frequency conversion enables a compact construction, low weight and high efficiency. The input and output are filtered for low noise. High quality built-in fans provide sufficient airflow for operation without de-rating within the specified temperature range. The fans draw air into the unit, and exhaust at the opposite side of the unit. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. 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><b>Input Voltage</b> 24V, 36V, 48V, 125V, 250Vdc ± 15% are standard Other inputs available on request</p> <p><b>Input Protection</b> Inrush current limiting Varistors Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p><b>Isolation</b> 1700Vdc input to chassis/output or corresponding to the voltage requirements Output neutral is connected to the chassis internally Floating output as option</p> <p><b>Standards</b> Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN62368-1</p> <p><b>EMI</b> EN 55032 Class A with margins</p>	<p><b>Output Voltage</b> 115Vac /8.7Arms/60Hz or 400Hz; or 230Vac/ 4.3Arms/50Hz 1000VA continuous output voltage Output neutral is connected to the chassis internally Isolated floating output optional Other outputs available on request</p> <p><b>Output Wave Form</b> Sinusoidal</p> <p><b>Total Harmonic Distortion</b> Less than 5% at full load</p> <p><b>Line/Load Regulation</b> ± 6% from no load to full load ± 2% load regulation option is available</p> <p><b>Load Crest Factor</b> 2.5 at 90% load</p> <p><b>Output Noise</b> High frequency ripple is less than 500mVrms (20MHz BW)</p> <p><b>Output Overload Protection</b> Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of insufficient cooling</p>	<p><b>Output Overvoltage Protection</b> 140Vac (for 115Vac output) or 280Vac (for 230Vac output) by internal supply voltage limiting</p> <p><b>Efficiency</b> Input voltage dependent Typically 80% at full load</p> <p><b>Operating Temperature Range</b> 0° C to +50° C for full specification Extended temperature ranges available</p> <p><b>Temperature Drift</b> 0.05% per °C over operating temperature range</p> <p><b>Cooling</b> Two high quality built-in fans draw air into the unit</p> <p><b>Environmental Protection</b> Basic ruggedizing Conformal Coating</p> <p><b>Humidity</b> 5 - 95% non-condensing</p> <p><b>MTBF</b> Min. 95,000 hours at 45°C (Fans excluded) Demonstrated MTBF is significantly higher Fans excluded</p>	<p><b>Indicators</b> Green OUTPUT ON LED installed on internal power card visible through the cooling slots</p> <p><b>Control Input</b> None Remote shutdown as option</p> <p><b>Alarm Output</b> None Optional output fail alarm (Form C)</p> <p><b>Package/Dimensions (H x W x D)</b> <b>3U2:</b> 132 x 132 x 381 mm 5.2" x 5.2" x 15" excludes connectors, flanges, external fans <b>3U3:</b> 132 x 187 x 381 mm 5.2 x 7.4 x 15" excludes connectors, flanges, external fans 19" rack-mount version as option Mounting holes are clear</p> <p><b>Weight</b> 3U2 chassis: 5.2 kg, (11.5 lb.) 3U3 chassis: 6.5 kg (14 lb.)</p> <p><b>Connections</b> Input: 3-pole terminal block, 13mm spacing Output: 3-pole terminal block.13mm spacing</p> <p><b>RoHS Compliance</b> Compliant</p> <p><b>Warranty</b> Two years subject to application within good engineering practice Contamination related failures and shipping cost excluded</p>
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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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