

250Vdc, Wide Input Range 2kVA DC-AC Sine Wave Inverter for Crane Applications CSH 2K-3U7 Series



- 250Vdc input (230-600Vdc)
- Sinusoidal output voltage
- Field-proven design topology
- Cooling by high quality built in fans
- Full electronic protection

This rugged, industrial quality DC-AC sine wave inverter was developed for operation on cranes and in similar heavy duty applications that require high input overvoltage capability. The 250Vdc nominal input design is capable of operating reliably up to 600Vdc input without any damage. This ABSOPULSE inverter offers a significant advantage over other inverters with standard industrial input ranges, which typically fail under these operating conditions. Microprocessor controlled high frequency PWM technology enables compact construction, low weight and high efficiency. The unit is constructed with internal modules, one FID2000 and three KHH2000 modules. The DC-DC input stage converts the input voltage to a DC bus voltage, which feeds two MSI1500 DC-AC modules to generate the required AC output. The input and output are filtered for low noise. The built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. The fans can be equipped with filters to enable operation in dusty conditions. The fans draw air into the unit. Most 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. It is manufactured at our plant under strict quality control.

SPECIFICATIONS

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| <p>Input Voltage 250Vdc nominal 230-600Vdc operating range Input Current: 11A max Consult factory for other input voltages and ranges</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 2500Vdc input to chassis 4300Vdc input to output 2250Vdc output to chassis Isolated floating output</p> <p>Standards Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1</p> <p>EMI EN55022 Class A with margins</p> | <p>Output Voltage 115Vac/17Arms continuous at 60Hz or 400Hz; or 230Vac/8.6Arms continuous at 50Hz Isolated floating output Consult factory for other output requirements</p> <p>Output Wave Form Sinusoidal</p> <p>Total Harmonic Distortion Less than 5% at full load</p> <p>Line/load Regulation ±6% from no load to full load</p> <p>Load Crest Factor ±2.5 at 90% load</p> <p>Output Noise High frequency ripple is less than 500mVrms (20MHz BW)</p> <p>Output Overload Protection Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow.</p> <p>Output Overvoltage Protection By internal supply voltage limiting</p> | <p>Efficiency Typically 85% at full load depending on input/output configuration</p> <p>Operating Temperature 0°C to +50°C for full specification Extended temperature ranges available on request</p> <p>Temperature Drift 0.05% per °C over operating temperature range</p> <p>Cooling High quality built in fans draw air into the unit. Air filters on request</p> <p>Environmental Protection Ruggedizing Conformal coating</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 - 95% non-condensing</p> <p>MTBF 105,000 hours at 45 °C Demonstrated MTBF is significantly higher</p> | <p>Indicators None</p> <p>Control Input None</p> <p>Alarm Output None Output Fail Alarm (Form C) as option</p> <p>Package/Dimensions (H x W x D) 3U7: 132 x 483 x 407 mm 5.2" x 19" x 16" Incl. connectors, excl. flanges Mounting holes are clear</p> <p>Weight 12 kg (26 lb)</p> <p>Connections Input: PHOENIX terminal block MKDSP 10/3-10 Output: terminal block</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice</p> |
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Please note that ABSOPULSE inverters are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic specifications are subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility



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