

1000VA Heavy-duty, Industrial Quality Sine Wave Inverter with Very Low Output Noise CSI 1K-3U3LN Series



- Sinusoidal output voltage
- Rugged, industrial quality
- Cooling by high quality internal fans
- Compact construction
- Full electronic protection
- Cost-effective construction

This rugged, modular DC/AC inverter system uses a field proven microprocessor controlled high frequency PWM technology to generate 1000VA output power with pure sine wave output voltage. The inverter is built with internal power modules. The DC/DC input stage boosts the DC voltage which feeds the DC/AC inverter to generate the required AC output. The output has a second-stage high performance filter which reduces the residual output ripple to less than 100mVrms (20MHz BW), delivering a very smooth pure sine wave output. The high frequency conversion enables a compact construction, low weight and high efficiency. Cooling is by a high quality built-in fan, which draws air into the unit and the exhaust exits at the terminal side of the unit. Full electronic protection, generous design headroom and the exclusive use of components with established reliability contribute to high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

48Vdc (42-56V)
110Vdc (90-130V)
125Vdc (106-145V)
Please contact factory for other input requirements

Input Protection

Inrush current limiting
Varistors
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

1700Vdc input to chassis/output or corresponding to the voltage requirements
Output neutral is connected to the chassis internally
Floating output as option

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN60950-1

EMI

EN 55022 Class A with margins

Output Voltage

115Vac /8.7Arms continuous at 60Hz or 400Hz; or
230Vac/ 4.3Arms continuous at 50Hz
Output neutral is connected to the chassis internally
Isolated floating output optional
Other outputs available on request

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

± 5% combined from 5% load to full load. A tighter regulated version is also available

Load Crest Factor

2 at 90% load

Output Ripple/Noise

Less than 100mVrms (20MHz BW) by internal second stage output filter

Output Overload Protection

Current limiting with short circuit protection
Thermal shutdown with automatic recovery in case of insufficient cooling

Output Overvoltage Protection

140Vac (for 115Vac output) or 280Vac (for 230Vac output) by internal supply voltage limiting

Efficiency

Input voltage dependent
Typically 80% at full load

Operating Temperature Range

0° C to +50° C for full specification
Extended temperature ranges available

Temperature Drift

0.05% per °C over operating temperature range

Cooling

High quality built-in fan draws air into the unit

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal coating as option

Humidity

5 - 95% non-condensing

MTBF

Min. 110,000 hours at 45°C
Demonstrated MTBF is significantly higher
Fan excluded

Indicators

Green high intensity output ON LED on the internal DC bus visible through the perforation on the terminal side

Control Input

None
Remote shutdown as option

Alarm Output

None
Optional output fail alarm

Package/Dimensions (H x W x D)

3U3: 132 x 187 x 407 mm (5.2 x 7.4 x 16") including connectors
Mounting holes are clear
19" rack-mount version as option

Weight

Approximately 6.5 kg (14lbs)

Connections

Input: terminal-block with 9.5mm spacing
Outputs: terminal-block with 9.5mm spacing

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice.

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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