

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



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

This rugged, modular DC/AC inverter system uses a field proven microprocessor controlled high frequency PWM technology to generate the required 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. Two high quality built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. The high frequency conversion enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

24V, 36V, 48V, 125V, 250Vdc
± 15% are standard
Other inputs available on request

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

Better than ± 6% from no load to full load.
± 2% load regulation option is available

Load Crest Factor

2.5 at 90% load

Output Noise

High frequency ripple is less than 500mVrms (20MHz BW)

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

Two high quality built-in fans draw air into the unit

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal coating as option

Humidity

5 - 95% non-condensing

MTBF

Min. 95,000 hours at 45°C
Demonstrated MTBF is significantly higher
Fans excluded

Indicators

None

Control Input

None
Remote shutdown as option

Alarm Output

None
Optional output fail alarm (Form C)

Package/Dimensions (W x H x D)

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

Weight

Approx . 6.5 kg (14lbs)

Connections

Input: Compression-type terminal-block
For 24Vdc input – threaded studs with nuts
Outputs: 115Vac – standard AC receptacle;
230Vac – IEC receptacle
Compression-type terminal block

RoHS Compliance

Fully compliant

Warranty

Two years subject to application
within good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications are subject to change

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output 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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