

1000VA Inverter with Sine Wave Output Rugged, Industrial Quality CSI 1K Series

- Sinusoidal output voltage
- Filtered input
- Cooling by internal fans
- Full electronic protection
- Field-proven design topology

Photo: 3U3



This rugged, modular, DC/AC inverter system uses a microprocessor controlled field proven design to generate 1000VA output power. It is a mature product with a track record in numerous applications. 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. The use of high frequency conversion ensures a compact construction and low weight. It features full electronic protection, high efficiency and low output noise. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. The use of components with established reliability results in a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

24V, 36V, 48V, 125V, 250Vdc
+/-15% are standard
Consult factory for other inputs

Input Protection

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

Isolation

500Vdc input to chassis for input voltages up to 48Vdc
1700Vdc input to chassis for input voltage 125Vdc
2250Vdc input to chassis for input voltage 250Vdc
2250Vdc input to output
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

EMI

EN 55022 Class A
as a minimum

Output Voltage

115Vac @ 60Hz or
400Hz/8.7A rms continuous;
or 230Vac @ 50Hz/ 4.35A rms
continuous.

Output neutral is connected to the chassis internally.

Isolated floating output optional
Consult factory for other output requirements

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

Maximum $\pm 6\%$ from no load to full load.
 $\pm 2\%$ load regulation option is available

Load Crest Factor

Maximum 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

Depends on input and output voltage combination.
Typically 76% at full load

Operating Temperature Range

0°C to +50°C for full specification without derating.
Extended temperature ranges available

Temperature Drift

0.05% per °C over operating temperature range

Cooling

Built-in fans drawing 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
Option: 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

6 kg (14 lb) approx

Connections

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

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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