

500VA Rugged, Industrial Quality Inverter with Sine Wave Output CSI 500 Series



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

This rugged, DC/AC inverter system uses 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. The built-in fan provides sufficient airflow for operation without de-rating to the specified temperature. 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. For railway applications, please see our RSI 500 Series.

SPECIFICATIONS

Input Voltage

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

Input Protection

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

Isolation

Input to chassis/output: min.
1000Vdc corresponding to the
input voltage
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/4.34A rms continuous;
or 230Vac @ 50Hz/2.17A
continuous
Output neutral is connected to
the chassis internally.
Isolated floating output optional
Consult factory for other outputs

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line Regulation

± 0.5% max.

Load Regulation

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

Load Crest Factor

Maximum 3.0 at 90% load

Output Noise

High frequency ripple is better
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

Typically 78% 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 fan draws air into
the unit

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal
coating as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

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

Indicators

None

Control Input

None
Remote shutdown as option

Alarm Output

None
Option: output fail alarm (Form C)

Package/Dimensions (WxHxL)

3U2: 132 x 132 x 407mm
(5.2"x5.2"x16") including
connectors, excluding flanges

Weight

Approx. 4.5kg (10lbs)

Connections

Input: compression type terminal block
Output: standard AC receptacle
Option: 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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