

500VA Rugged, Industrial Quality Inverter with Sine Wave Output Voltage

CSI 500 Series



- Sinusoidal output voltage
- Rugged, field-proven design
- Filtered input
- Conduction/convection cooling
- Full electronic protection

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate 500VA output power with pure sine wave output voltage. It is a mature design 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 enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise. Cooling is via baseplate to a heat-sinking surface and by natural convection. 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, 125Vdc
 $\pm 15\%$ are standard
Consult factory for other inputs

Input Protection

Inrush current limiting
Varistor
Reverse polarity protection
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

EMI

EN 55022 Class A
with margins

Output Voltage

115Vac/4.3A continuous at
60Hz or 400Hz; or
230Vac/2.17A continuous at 50Hz
Isolated floating output
Consult factory for other output requirements

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

Maximum $\pm 2\%$ from no load to full load.

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

Output Overvoltage Protection

Output voltage is limited by internal supply voltage

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

Conduction to customer heat-sink or chassis and natural convection

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

130,000 hours at 45°C
Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

None
Optional output fail alarm (Form C)

Package/Dimensions

F21: 254 x 66 x 361 mm
(10" x 2.6" x 14.2")
Includes terminal block and flanges

Weight

4.2 kg (9 lb)

Connections

Input/output: Compression-type terminals

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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