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

- Sinusoidal output voltage
- 500VA output power
- Filtered input
- Cooling by internal fan
- Full electronic protection
- Field-proven design topology



The CSI 500 Series is a rugged, compact DC/AC Inverter which uses field proven topology to generate 500W output power. It is a mature design with a track record in hundreds of 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. Suitable for a wide range of applications, the CSI 500 features full electronic protection and low output noise. Cooling is by built-in fan.. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a high demonstrated MTBF. The CSI 500 is manufactured at our plant under strict quality control. Customized versions are also available. 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 ranges

### **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: 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/4.34Å/60Hz or 400Hz; or 230VAC/2.17Å/50Hz 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 Regulation

 $\pm$  0.5% max.

### **Load Regulation**

Maximum  $\pm$  6% from no load to full load.

 $\pm$  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

Thermal shutdown with automatic recovery in case of insufficient cooling

### **Output Overvoltage Protection**

140/280V 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  $^{\circ}$  C over operating temperature range

# Cooling

Built-in fan

### **Environmental Protection**

Basic ruggedizing

#### Humidity

5 - 95% non-condensing

### **MTBF**

Min. 140,000 hours at 45°C

#### Indicators

None

### **Control Input**

None

Remote shutdown as option

# **Alarm Output**

None

Option: output fail alarm (Form C)

### Package/Dimensions (W x H x L)

12: 127 x 133.1 x 393.7 mm (5" x 5.2" x 15.5") including terminal block and flanges Mounting holes are clear

# Weight

4 Kg (9 lb)

#### Connections

Input: Compression-type terminal block Outputs: 115Vac: Standard AC receptacle 230Vac: IEC connector

# **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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