

Source Control Document.

Model: CSI 500R-5E-FXWT-T1850

COSD: XXXX

Summary Description: 500VA Railway Quality Sine Wave Inverter
110Vdc to 230Vac/50Hz

Customer Name:

Customer Part Number: Same as above



Product description:

This rugged DC/AC inverter 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 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 heatsinking 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.

Special Features: Ruggedizing, conformal coating.

SPECIFICATIONS

Input Voltage

110Vdc nominal
80-150Vdc operating range
Input current 7.5A max

Input Protection

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

Isolation

1000Vdc input to chassis
3000Vdc input to output
2250Vdc output to chassis

Standards

Designed to meet C22.2 No. 107.1 – 01.
UL 458 and EN 60950-1 and
EN 50155

EMI

EN 50121-3-2

Immunity

Meets criteria of EN 50155 and
EN 50121-3-2 including:

EN 61000-4-2 (ESD)
EN 61000-4-3 (RF Immunity)
EN 61000-4-4 (Fast Transients)
EN 50155 (Surge)
EN 61000-4-6 (Conducted Imm.)
EN 50155 (Voltage Variations)

Output Voltage

230Vac/50Hz/2.1Arms continuous
Output neutral is floating

Output Wave Form

Sinusoidal

Terminal Block Pin Out

AC OUTPUT								48VDC INPUT			
L1	L2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	GND	-	-	+	+
1	2	3	4	5	6	7	8	9	10	11	12
~	~						⊥	-	-	+	+

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

+/-5% from 10% load to full load

Load Crest Factor

2 at 90% load

Output Ripple Noise

Better than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow

Output Overvoltage Protection

By internal supply voltage limiting at 270Vac

Efficiency

80% at full load

Operating Temperature Range

-25°C to +55°C for full specification

Temperature Drift

0.05% per °C over operating temperature range

Cooling

By high quality built-in fans

Environmental Protection

Ruggedizing
Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A & B

Humidity

5 – 95% non-condensing

MTBF

130,000 hours at 45°C

Indicators

Green OUTPUT ON LED visible through the cooling slots

Control Input

None

Alarm Output

Not installed

Package/Dimensions (WxHxL)

FXW: 185 x 66 x 358mm
(7.3" x 2.6" x 14.1")
Mounting holes are clear

Weight

2.9 kg (6.4 lbs)

Connections

12-pole barrier-type terminal block,
3/8" spacing.

RoHS compliance

Compliant

Warranty

Two years subject to application within good engineering practice
Contamination related failures and shipping cost excluded

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