

Model: CSI 1K-60/E-F31TA-T3541

COSD: XXXX

Summary Description: 1000VA, Conduction Cooled, Industrial Quality Sine Wave Inverter; 60Vdc to 230Vac / 50Hz

Customer Name: Thiele KG/Germany (KS)

Customer Part Number: Same as above

Product Description:

This rugged, industrial quality DC/AC inverter utilizes 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. Two CDC500 modules convert the input voltage to an internal DC bus voltage, which feeds the MSI2300 output module. High frequency conversion enables a compact construction, low weight and high efficiency. The input and output are filtered for low noise. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headrooms, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: 60Vdc input (51-69vdc input range), coating coating, alarm Form C



SPECIFICATIONS

Input Voltage

60Vdc nominal
51-69Vdc operating range
Input current: 24A max.

Input Protection

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

Isolation

700Vdc input to chassis
2250Vdc output to chassis
Output neutral is internally connected to chassis

Standards

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

EMI

EN 55032 Class A with margins

Output Voltage

230Vac/4.3Arms continuous, 50Hz
Output neutral is internally connected to chassis

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line / Load Regulation

± 6% combined from zero load to full load

Load Crest Factor

2 at 90% load

Output Noise

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

280Vac by internal supply voltage limiting

Efficiency

80% at full load

Operating Temperature Range

0°C to +50°C cooling plate temperature

Temperature Drift

0.05% per °C over operating temperature range

Cooling

By conduction cooling to customer chassis or heat sink and additional convection

Environmental Protection

Basic ruggedizing
Conformal coating

Shock / Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing

MTBF

140,000 hours at 45°C
Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

Output fail alarm
Form C contacts

Package / Dimensions (WxHxL)

F31: 483 x 67 x 355mm
(19" x 2.6" x 14")

Mounting holes are clear.

Weight

Approx. 8 kg (17.6 lbs)

Connections

Input & Output: Phoenix terminal, SMKDS 5/3-9.5

Alarm: Phoenix terminal Front 2.5-V/SA10

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice