

Model: CSI 1K-220E-F31T-U0116
COSD: XXXX
Summary Description: 1000VA, Conduction Cooled
 Sine Wave Inverter
 220Vdc to 230Vac / 50Hz
Customer Name: Thiele KG/Germany
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, two CAC1000 boosts input voltage to a higher DC voltage, which feeds the MIS 2300 DC/AC inverter to generate the required AC output. High frequency conversion enables compact construction, low weight and high efficiency. The unit has full electronic protection. Input and output are filtered for low noise. Cooling is via base plate to a cold plate surface and by additional natural convection. The use of components with established reliability results in high MTBF. It is manufactured at our plant under strict quality control.

Special Features: 176-264Vdc input range. Conformal coating

SPECIFICATIONS

Input Voltage
 220Vdc nominal
 176-264Vdc operating range (requested)
 Input current: 6.8A max.

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
 Input to chassis/output: 1700Vdc
 Output to chassis/input: 2250Vdc
 Output neutral is connected to chassis internally

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

EMI
 EN55032 Class A with margins

Output Voltage
 230Vac/4.3Arms / 50Hz
 1000VA continuous
 Output neutral is connected to chassis internally

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
 270Vac by internal supply voltage limiting

Efficiency
 Typically 85% 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

Environmental Protection
 Basic ruggedizing
 Conformal coating

Shock/Vibration
 IEC 61373 Cat 1 A&B

Humidity
 5 - 95% non-condensing

MTBF
 100,000 hours at 45°C

Indicators
 None

Control Input
 None

Alarm Output
 Not installed


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: 3-pole terminal block with 13mm spacing. Snap-on cover included.

RoHS Compliance
 Compliant

Warranty
 Two years subject to application within good engineering practice

Drawn by TS/kv	Date June 9, 2021
Checked by TS	Drawing No./ Rev. SCD U0116A
Approved by TS	

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