



Model: CSI 20-2A-F1T-U3799
COSD: XXXX
Summary description: 20VA Industrial Quality Sine Wave Inverter
 28Vdc to 110Vac/60Hz
Customer Name: Thiele KG/Germany
Customer Part Number: Same as above

Preliminary

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. 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 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: 20-32Vdc input range. Conformal coating

SPECIFICATIONS

Input Voltage

28Vdc nominal
 20-32Vdc operating range
 Input current: 1.5A 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

500Vdc input to chassis
 1500Vdc input to output
 1500Vdc output to chassis

Standards

Designed to meet EN 62368-1 and corresponding standards

EMI

EN55032 Class A with margins

Output Voltage

110Vac, 0.2Arms, 60Hz
 Output is floating

Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

± 3% from no load to full load

Load Crest Factor

2 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

140V by internal supply voltage limiting

Efficiency

80% at full load

Operating Temperature Range

0°C to +50°C baseplate temperature for full specifications

Temperature Drift

0.05% per °C over operating temperature range

Cooling

By natural air convection

Environmental Protection

Basic ruggedizing
 Conformal coating

Shock / Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing

MTBF

150,000 hours at 45°C
 Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

Not installed

Package Dimensions (W x H x L)

F1: 112 x 51 x 201mm
 (4.4" x 2" x 7.9")

Mounting holes are clear

Weight

0.8kg (1.8 lb)

Connections

9-pole barrier type terminal block with 3/8" spacing. Snap-on cover included

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

Terminal Block Pin-Out

110VAC OUTPUT			GND			28VDC INPUT		
GND	L1	L2	NOT USED	NOT USED	NOT USED	+	-	
1	2	3	4	5	6	7	8	9

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