

**Model:** CSI 50-6E-F1T-T6398  
**COSD:** XXXX  
**Summary description:** 50VA Industrial Quality Sine Wave Inverter  
 220Vdc to 230Vac, 50Hz  
**Customer Name:** Thiele KG/Germany (KS)  
**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:** 180-250Vdc input, conformal coating. Actual load 40VA max.

**SPECIFICATIONS**

**Input Voltage**

220Vdc nominal  
 180-250Vdc operating range  
 Input current: 0.35A max

**Input Protection**

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

**Isolation**

2250Vdc input to chassis  
 2800Vdc input to output  
 2250Vdc output to chassis

**Standards**

Designed to meet EN 60950-1 and corresponding standards

**EMI**

EN55032 Class A with margins

**Output Voltage**

230Vac / 0.2Arms, 50Hz  
 50VA continuous  
 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**

270V by internal supply voltage limiting

**Efficiency**

80% at full load

**Operating Temperature Range**

0°C to +50°C for full specifications

**Temperature Drift**

0.05% per °C over operating temperature range

**Cooling**

Convection/conduction

**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

**Indicators**

None

**Control Input**

None

**Alarm Output**

None

**Package Dimensions (W x H x L)**

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

230VAC OUTPUT			NOT USED			220VDC INPUT		
NOT USED	L1	L2	NOT USED	NOT USED	NOT USED	⊖	+	-
1	2	3	4	5	6	7	8	9

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