

Model: FCP 500-EM-F21T-U3443
COSD: XXXX
Summary description: 500W Frequency Converter with Sinewave Output
 230Vac to 115Vac/400Hz
Customer Name: Thiele KG/Germany
Customer Part Number: Same as above



Product description:

This rugged AC/AC frequency converter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. The unit is built with internal modules; a CAP1000 and an MSI 1500. It is a mature design with a track record in numerous applications. The AC/DC input stage converts the input voltage to a 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 conduction via baseplate and by additional 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: Conformal coating.

SPECIFICATIONS

Input Voltage

230Vac nominal, 47-63Hz
 197-264Vac operating range
 Input current: 3Arms max
 Power factor meets EN61000-3-2

Input Protection

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

Isolation

2250Vdc input to ground
 3000Vdc input to output
 2250Vdc output to chassis

Standards

Designed to meet EN62368-1 and related standards

EMI

EN 55032 Class A with margins

Output Voltage

115Vac/4.3Arms continuous, 400Hz
 Output is floating

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

±5% from no load to full load

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is 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

140Vac by internal supply voltage limiting

Efficiency

80% at full load, nominal input

Operating Temperature Range

0° C to +50° C

Temperature Drift

0.05% per °C over operating temperature range

Cooling

Conduction via baseplate and by additional convection

Environmental Protection

Basic ruggedizing
 Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

110,000 hours @ 45° C

Indicators

None

Control Input

None

Alarm Output

None

Package / Dimensions (WxHxL)

F21: 254 x 66 x 351mm
 (10"x 2.6"x 11.5")
 Mounting holes are clear

Weight

3.8kg (8.5lbs)

Connections


Input: 3-pole Phoenix SMKDS 5/3-9.5
 Output: 3-pole Phoenix SMKDS 5/3-9.5

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

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