

Model: FC 1K1-AE-3U3-U2975
COSD: XXXX
Summary Description: 1150VA Industrial Quality Frequency Converter
 115Vac to 230Vac / 50Hz
Customer Name: Thiele KG/Germany
Customer Part Number: Same as above



Preliminary

Product Description:

This rugged, AC/AC frequency converter system uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. The frequency converter is built with internal power modules. Two CAP 1200 modules converts the input voltage to an internal DC voltage, which feeds the MSI 1500 AC output module. The built-in fan provides sufficient airflow for operation without de-rating to the specified temperature. The 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. 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

115Vac nominal, 47-63Hz
 97-132Vac operating range
 Input current: 14Arms max.
 Power factor meets EN61000-3-2

Input Protection

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

Isolation

Input to chassis: 2250Vdc
 Output neutral is connected to
 the chassis internally

Standards

Designed to meet
 C22.2 No. 107.1 – 01,
 UL 458 and EN 62368-1

EMI

EN55032 Class A with margins

Output Voltage

230Vac /50Hz/ 5Arms continuous
 Output neutral is internally
 connected to chassis

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line / Load Regulation

± 6% 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

270Vac by internal supply voltage
 limiting

Efficiency

Min. 80% at full load

Operating Temperature Range

0°C to +50°C for full specification
 with proper installation

Temperature Drift

0.05% per °C over operating
 temperature range

Cooling

By built-in high quality fan

Environmental Protection

Basic ruggedizing
 Conformal coating

Shock / Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing

MTBF

110,000 hours at 45 °C (Fan not included)
 Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

Not installed

Package / Dimensions (W x H x L)

3U3: 187 x 132 x 407mm
 (7.4" x 5.2" x 16")
 Chassis mount

Weight

7kg (15 lbs)

Connections


Input: Terminal block
Output: Terminal block Phoenix FRONT

RoHS Compliance

Compliant

Warranty

Two years subject to application
 within good engineering practice
 Contamination related failures and
 shipping cost excluded

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