

Source Control Document.

Model: FTP 1K5-EM-3U7RC-S3700
COSD: 0N78-A1 (0N78-A2, 0N78-A3)

Summary description: 1.5kVA Frequency Converter
220Vac Single-phase/50 or 60Hz to
3-phase 115Vac (L-N) 400Hz

Customer Name: JDGA GPS/Texas
Project Name: Onrion



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. Three CAC 500 modules convert input voltage to an internal DC voltage, which feeds the three MSI 1500 AC output modules. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. 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. The use of components with established reliability results in a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: 19" rackmount, Ruggedizing, Conformal coating, -20C operation

SPECIFICATIONS

Input Voltage
 220VAc, 47-63Hz
 Operating range 195-264VAc
 Input current: 14Arms max at 195VAc

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

Isolation
 2250Vdc Input to chassis
 Output neutrals are connected to chassis internally

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

EMI
 EN 55022 Class A with margins

Output Voltage
 3-phase 115Vac (L-N) / 400Hz
 4.35A rms continuous per phase
 All output neutrals are internally connected to chassis

Output Wave Form
 Sinusoidal

Total Harmonic Distortion
 Less than 5% at full load

Line/Load Regulation
 Maximum $\pm 6\%$ from no load to full load

Load Crest Factor
 Maximum 2.5 at 90% load

Output Noise
 High frequency ripple is better than 500mVrms (20MHz BW)

Output Overload Protection
 At approximately 600VA per phase unit enters cycling (hiccup) mode
 Thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow.

Output Overvoltage Protection
 By internal supply voltage limiting at 140VAc on output

Operating Temperature Range
 -20°C to +50°C

Temperature Drift
 0.05% per °C over operating temperature range

Efficiency
 78% at full load

Cooling
 By built-in high quality fans

Environmental Protection
 Full ruggedizing
 Conformal coating

Shock/Vibration
 IEC 61373 Cat 1 A&B

Humidity
 5 - 95% non-condensing

Indicators
 None

Control Input
 None

Alarm Output
 None


Package/Dimensions (WxHxL)
 3U7: 432 x 132 x 432mm
 (19" x 5.2" x 17")
 19" rackmount

Weight
 Approx. 14kg (30 lbs)

Connections
 Input: Barrier-type terminal strip with 3/8" spacing, 3 poles
 Output: Barrier-type terminal strip with 3/8" spacing, 10 poles

RoHS Compliance
 Fully compliant

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

Originated by JG/TS/kv	Date March 5, 2025
Updated by TS	Drawing No./ Rev. SCD 0N78 A1J0A
Approved by TS	

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