FCSTrail3000 Series AC/AC Single-Phase to 3-Phase Freqency Converter

- Pure sinewave
- 3 - Phase output
- High frequency technology
- Light weight, compact size
- Full electronic protection
- Optional extended temperature range
- Optional output fail alarm (Form C)

AC/AC Converters

FCSTrail3000 Series

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 power modules; three input filters, three modules convert the input voltage to an internal DC bus voltage, which feeds the three output modules.
The built-in fans provide 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: 200AC input @ 16.66Hz, conformal coating and ruggedizing for rail application

Applications

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

Features

- Input is filtered to EN 55022 Class A
- Sinusoidal wave shape
- Isolated, floating output
- 3000VA of output power
- Full electronic protection
- High reliability
- Telecom quality
- Field-proven design topology

Specifications *(Specifications Subject to Change Without Notice)*

Input Voltage	200Vac nominal, 16.7Hz 170-230Vac operating range Input current: 31A rms max total (10.5A rms per input module)
Input Protection	Inrush current limiting Varistor Internal safety fuse Lower voltage than specified input min. will not damage unit
Isolation	2250Vdc input to chassis 2250Vdc output to chassis Output neutrals are connected to the chassis
Standards	Designed to meet EN60950-1 and corresponding standards
EMI	EN 55022 Class A
Output Voltage	3-phase 400Vrms (L-L), 50Hz 2.5Arms per phase continuous, All neutrals are internally connected to chassis in “Y” configuration Consult factory for other voltages, frequencies and options
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line / Load Regulation	Maximum ± 6% from 10% load to full load.
Load Crest Factor	Maximum 2 at 90% load
Output Noise	High frequency ripple is better than 500mVrms (20MHz BW)
Output Overload Protection	Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of insufficient airflow
Output Overvoltage Protection	440Vac by internal supply voltage limiting
Efficiency	80% at full load
Operating Temperature Range	0°C to +50°C for full specification without derating derating linearly 2.5% per °C rise above +50°C to +70°C max. Extended temperature range available
Temperature Drift	0.05% per °C over operating temperature range
Cooling	By built-in high-quality fans
Environmental Protection	Ruggedizing Conformal coating
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	Min. 70,000 hours at 45ºC Fan excluded
Indicators	None
Control Input	None
Alarm Output	None Option: output fail alarm (Form C)
Package / Dimensions	Three 3U3 cases with dimensions 187 x 132 x 407mm The modules can be 19” rack mounted as a 6U X 19” block
Weight	25 kg
Connections	Input: Terminal block Output: Terminal block Interconnections: Terminal blocks
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:

RIPEnergy®

The power conversion company

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