

FCrail2000 Series AC/AC Frequency Converter



3U7 Rack-mount



Pure sinewave



High frequency technology



Light weight, compact size



Full electronic protection



Optional extended temperature range



Optional output fail alarm (Form C)

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

AC/AC Converters

FCrail2000 Series

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.

It is a mature design with a track record in numerous applications.

The frequency converter is built with internal power modules. The AC/DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output.

Long-life 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 system is manufactured at our plant under strict quality control.

Customized versions are also available.

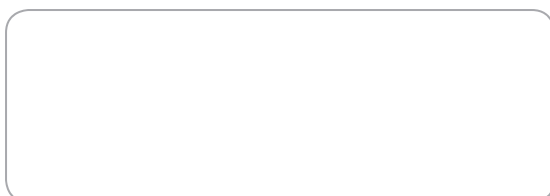
Features

- Extended Operating Temperature
- Input 230VAC / 16.7Hz
- Modular design, light weight
- Sinusoidal wave shape
- 2000VA of output power
- Full electronic protection
- High reliability
- Telecom quality
- Field-proven design topology

Specifications (Specifications Subject to Change Without Notice)

Input Voltage	230Vac nominal, 16.7Hz 196-264Vac operating range Input current: 18.3Arms max.
Input Protection	Inrush current limiting Varistors Internal safety fuse Lower voltage than specified input min. will not damage unit
Isolation	2250Vdc input to chassis/output Output neutral is 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	230Vac/50Hz/8.6Arms continuous Output neutral is internally connected to chassis
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	Current limiting with short circuit protection. At approximately 2400VA, unit enters cycling (hiccup) mode. Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	270Vac by internal supply voltage limiting
Efficiency	80% at full load
Operating Temperature Range	-25°C to +50°C for full specification without derating derating linearly 2.5% per °C rise above +50°C to +70°C max.
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Built-in fans draw air into the unit
Environmental Protection	Basic ruggedizing
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	Min. 95,000 hours at 45°C Fans excluded
Indicators	None
Control Input	None
Alarm Output	None
Package / Dimensions	3U7: 132 x 483 x 407mm 19" rack mounted
Weight	10kg
Connections	Input: PHOENIX connector SMKDSP 5/3-9.5 Output: Barrier type terminal strip with 1/2" spacing, 3 poles Terminal blocks cover included.
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



RIPEnergy®

The power conversion company

RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Ph +41-(0)43-818 53 85
Fax +41-(0)43-818 53 87
www.ripenergy.ch