RIPEENERGY
The Power Conversion Company

FCSS4000 INDUSTRIAL FREQUENCY CONVERTER

SERIES FCSS4000

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 number of modules depends on the input/output combination

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.

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 use of components with established reliability results in high MTBF.

The unit is manufactured at our plant under strict quality control.

Pure Sinewave

High frequency technology

Light weight, compact size

Full electronic protection

Optional Remote shutdown

Optional Extended temperature range

Optional Output fail alarm (Form C)

APPLICATIONS

- Aviation
- Industrial Controls
- Telecom Power Plants
- Railway / Transportation
- Military Applications
- Marine
- Mining
- Oil Rigs
- Steel Mills
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power
- Manufacturing Location
- OEM Applications

FEATURES

- Sine wave output voltage
- Field-proven rugged design
- Cooling by internal fans
- Filtered input and output
- Full electronic protection
- Compact size
- 4000VA of output power

SPECIFICATIONS

Input Voltage	95 - 264Vac universal input with PFC 47 ... 410Hz are standard Consult factory for other inputs
Input Protection	Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	2250Vdc input to chassis 2250Vdc input to output
Output Voltage	115Vac @ 60Hz or 400Hz/35A rms continuous or 230Vac @ 50Hz/17A rms continuous Output neutral is connected to the chassis internally Isolated floating output optional Consult factory for other outputs
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line Regulation	± 0.5% max.
Load Regulation	Maximum ± 6% from no load to full load. A ± 2% load regulation option is available.
Load Crest Factor	2.5 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	Depends on input and output voltage combination. Typically 80% at full load
Output Overload Protection	Current limiting with short circuit protection Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	140Vac (for 115Vac output) or 280Vac (for 230Vac output) by internal supply voltage limiting

Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458, EN 60950, EN 62368-1 and CE
EMI	EN 55032 Class A as a minimum
Operating Temperature	0 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 on request
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Built-in fans draw air into the unit
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	4x3U3: 6U x 19" rack-mount or chassis mount assembly 432 x 266x 407 mm (W x H x L) including connectors
Weight	28 Kg
Connections	Input(s): terminal block or threaded studs Outputs: terminal block Interconnections: terminal blocks
MTBF	95,000 hours at 45°C Demonstrated MTBF is significantly higher Fans excluded
Indicators	None Available as an option
Control Input	None Remote shutdown as option
Alarm output	None Optional output Fail Alarm (Form C)
RoHS Compliance	Fully compliant
Warranty	2 years

Version 01.12.20
Specifications Subject to Change Without Notice

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RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Phone +41 43 818 53 85
www.ripenergy.ch