RIPEENERGY
The Power Conversion Company

FCSS250 INDUSTRIAL FREQUENCY CONVERTER

SERIES FCSS250

This rugged, AC/AC frequency converter utilizes field proven, microprocessor-controlled technology to generate 250VA continuous output power with pure sine wave output voltage.

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

The AC/DC input stage boosts the input voltage to a higher DC bus voltage, which feeds the DC/AC inverter to generate the required AC output.

Cooling is via baseplate to a heatsinking surface and by natural convection. The high frequency conversion enables a compact construction, low weight and high efficiency.

Full electronic protection, generous design headroom and the exclusive use of components with established reliability contribute to high MTBF.

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

Pure Sinewave

HF
High frequency technology

Light weight, compact size

Full electronic protection

Conduction convection cooled

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
- Conduction / convection cooled, no fan
- Filtered input and output
- Full electronic protection
- Low profile
- Compact size
- 250VA of output power

SPECIFICATIONS

Input Voltage	115 or 230Vac ±15% 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 4300Vdc input to output 2250Vdc output to chassis
Output Voltage	115Vac @ 60Hz or 400Hz /2.17A rms continuous or 230Vac @ 50Hz/1.08A rms continuous. Output is floating, either terminal can be grounded. Other outputs are available on request.
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Load/Line Regulation	± 2% from no load to full load
Load Crest Factor	2 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	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 and EN 60950-1
EMI	EN 55022 Class A with margins
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	Conduction to customer heat sink or chassis and natural convection
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	F3: 132 x 64 x 300 mm (W x H x L) including terminal block and flanges Mounting holes are clear
Weight	2 Kg
Connections	12-pole Barrier type terminal block with 3/8" spacing
MTBF	110,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None
Alarm output	None Optional output Fail Alarm (Form C)
RoHS Compliance	Fully compliant
Warranty	2 years

Terminal Block Pin-out

OUTPUT							INPUT				
NOT USED	L1 ~	L2 ~	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	GND ⏚	N ~	PH ~
1	2	3	4	5	6	7	8	9	10	11	12

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RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

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