

FCSS250 Series AC/AC Frequency Converter



Benefits

- Ultra-Quiet
- Convection cooled
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

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

FCSS250 Series

Description

This rugged, AC/AC frequency converter uses field proven, microprocessor-controlled technology to generate 250VA continuous output power.

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 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.

The unit has full electronic protection. The input and output are filtered for low noise.

Components with established reliability contribute to high MTBF.

The FCSS250 is manufactured at our plant under strict quality control. The system can be customized for exact requirements.

Features

- Input is filtered to EN 55022 Class A
- Compact size, light weight
- Convection cooled
- Sinusoidal wave shape
- 250VA of output power
- Full electronic protection
- High reliability
- Telecom quality
- Field-proven design topology

Specifications (Specifications Subject to Change Without Notice)

Electrical (Input)

Input Voltage VAC	115 or 230 +/-15% Other inputs available, please consult factory
Frequency Hz	47...410
Input Protection	Inrush current limiting Varistors Internal safety fuse Lower voltage than the specified minimum input will not damage the unit

Electrical (Output)

Output	115VAC / 60Hz or 400Hz / 2.17A or 230VAC / 50Hz / 1.08A Output neutral is connected to the chassis internally. Isolated floating output optional. Consult factory for other output requirements
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
Wave Form	Sinusoidal

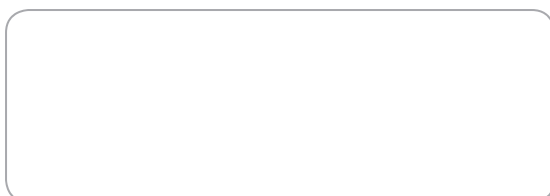
Indications & Electrical

Total Harmonic Distortion	Less than 5% at full load
Efficiency	Typically 78% at full load
Line/Load Regulation	±2% load regulation option is available
Load Crest Factor	Maximum 2.5 at 90% load
Output Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Operating Temperature Range	0°C to +50°C for full specification without derating. Extended temperature ranges available
Humidity	5 - 95% non-condensing
Temperature Drift (for output voltage level)	0.05% per °C over operating temperature range
Safety	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950
Cooling	Conduction via base plate to customer heatsink or chassis and natural convection
Environmental Protection	Basic ruggedizing full ruggedizing and conformal coating available as an option
Shock/Vibration	IEC 61373 Cat 1 A&B
EMI	EN 55022 Class A
Isolation	Compliant to input and output voltages according to the corresponding standards
MTBF	Min. 95,000 hours at 45°C, Demonstrated MTBF is significantly higher
Indicators	None
Control Inputs	None; Remote shutdown as option
Alarm Output	None; Option: output fail alarm (Form C)

Mechanical Specifications

Dimensions (W x H x L)	F3: 132 x 62 x 300 mm including mounting flanges and terminals.
Weight	2 kg
Connections	12 pole barrier type terminal block with 3/8" spacing
RoHS Compliance	Fully compliant
Warranty	2 year

Available from:



RIPEnergy®

The power conversion company

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