

FCSS250 Series AC/AC Frequency Converter



Pure sinewave



Convection cooling (no fan)



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

FCSS250 Series

Description

This rugged, AC/AC frequency converter uses 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 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.

The use of components with established reliability results in high MTBF.

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

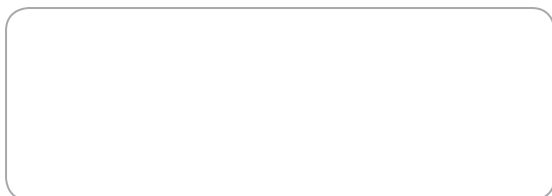
Features

- 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)

Input Voltage	115 or 230Vac, +/-15% 47 ... 410Hz are standard Factory set for required input
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
Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950
EMI	EN 55022 Class A as a minimum
Output Voltage	115Vac @ 60Hz or 400Hz / 2.17A rms continuous; or 230Vac @ 50Hz / 1.08A rms continuous. Output is floating Isolated floating output optional Consult factory for other outputs
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line / Load Regulation	± 2% load regulation
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 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
Efficiency	Typically 78% 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	Conduction via base plate to customer heatsink or chassis and natural convection
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	Min. 95,000 hours at 45°C Demonstrated MTBF is significantly higher Fans excluded
Indicators	None
Control Input	None
Alarm Output	None Option: output fail alarm (Form C)
Package / Dimensions	F3: 132 x 64 x 300 mm including mounting flanges and terminals.
Weight	2kg
Connections	12 pole barrier type terminal block with 3/8" spacing
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