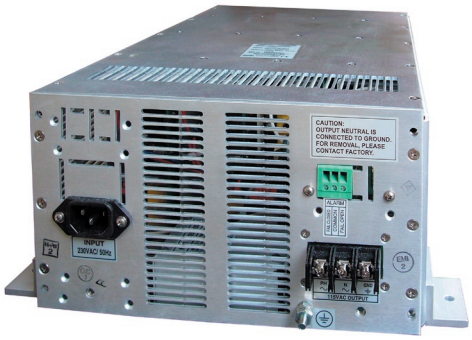
FCSS1500 Series AC/AC Frequency Converter



- 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

FCSS1500 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

- Input is filtered to EN 55022 Class A
- Compact size, light weight
- Sinusoidal wave shape
- 1500VA 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 95 – 264Vac universal input with PFC is also available
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 Floating output as option
Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950
EMI	EN 55022 Class A with margins
Output Voltage	115Vac @ 60Hz or 400Hz / 13A rms continuous; or 230Vac @ 50Hz / 6.6A rms continuous. Output neutral is connected to the chassis internally. Isolated floating output optional Consult factory for other outputs
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line / Load Regulation	Maximum ± 6% from no load to full load. ± 2% load regulation option is available
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	Depends on input and output voltage combination. 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	Forced air by high quality built-in fans which draw air into the unit
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. 90,000 hours at 45ºC Demonstrated MTBF is significantly higher Fans excluded
Indicators	None
Control Input	None Remote shutdown as option
Alarm Output	None Option: output fail alarm (Form C)
Package / Dimensions	Package size varies from 3U4 244 x 132 x 407 mm to a 3U x 19” x 407 mm modular configuration, depending on the input/output combination required. Chassis-mount and 19” rack-mount versions available at the same price
Weight	From 8kg to 14kg approx., depending on the modular configuration
Connections	Input: Terminal-block or threaded studs Outputs: Standard AC receptacle, IEC receptacle or terminal block
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

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