



# ANALYTIC SYSTEMS

Power Conversion Solutions

AC/AC Frequency  
Converters

Model  
FCA5000R



## Description

The FCA5000R Series is a compact AC/AC frequency converter that uses established design techniques to ensure high reliability. Suitable for a wide range of applications, the FCA5000R features full electronic protection, high efficiency and low output noise.

The built-in fan provides sufficient airflow for operation without de-rating up to 50°C ambient temperature. Extended operating temperature (-40 to +65°C) is available.

The converter can be loaded with a fluorescent lamp load up to the full specified output power.

## Benefits

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

## Design Features

- ◆ Input is filtered to EN 55022 Class B
- ◆ Very low 60Hz input ripple current
- ◆ Modular design, light weight
- ◆ Sinusoidal wave shape
- ◆ Multiple input and output voltages available
- ◆ 5000VA of output power
- ◆ Full electronic protection
- ◆ Field-proven design topology

## 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 Frequency Converters FCA5000R

Input Voltage	115 or 230VAC, 48...410Hz +/-20% are standard Other inputs available, please consult factory
Input Protection	Thermal fuse, Inrush current limiting, Reverse polarity protection
Isolation	2250 VDC input to chassis / 2250 VDC input to output / 2250 VDC output to chassis
Output Voltage	115VAC / 60Hz / 43.4A or 115VAC / 400Hz / 43.4A or 230VAC / 50Hz / 21.7A continuous with grounded neutral Isolated floating output optional (Consult factory for other voltages and frequencies)
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Efficiency	Min 78% at full load
Line Regulation	Maximum 0.5%
Load Regulation	Maximum $\pm$ 6% from 10% load to full load
Output Protection	Current limiting with short circuit protection, thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow
EMI	Meets EN 55022 Class B
Load Crest Factor	Maximum 3.0 at 90% load
Operating Temperature Range	0°C to +50°C Extended range available (Consult factory)
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Dimensions	6U x 19" rack-mount enclosure Depth: 18" maximum
Connections	Input: Compression-type terminal Output: Standard AC receptacle
Weight	60 pounds (31.8 kg)
Safety	Compliance to IEC950, CSA C22.2 No. 950 and UL 1950 Please contact factory for approval status for the requested input/output configuration

Warranty: Twelve months subject to application within good engineering practice Enhancements to these general specifications can be accommodated upon request Designed to meet common approval requirements. Specifications Subject to Change Without Notice Designed and Manufactured in Canada



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