



## AC/AC Frequency Converters

### FCA4000R Series Frequency Converters

#### Benefits

- Ultra-Quiet
- 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

#### Description

The FCA4000R 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 FCA3000R 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.

#### 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
- 4000VA of output power
- Full electronic protection
- Field-proven design topology

# FCA4000R Series AC/AC Frequency Converters

## Specification

|                                    |  |
|------------------------------------|--|
| <b>Input Voltage</b>               | 115 or 230VAC, 48...410Hz +/-20% are standard<br>Other inputs available, please consult factory  |
| <b>Input Protection</b>            | Thermal fuse, Inrush current limiting, Reverse polarity protection   |
| <b>Isolation</b>                   | 2250 VDC input to chassis / 2250 VDC input to output / 2250 VDC output to chassis  |
| <b>Output Voltage</b>              | 115VAC / 60Hz / 34.7A or 115VAC / 400Hz / 34.7A or<br>230VAC 50Hz / 21.7A continuous with grounded neutral<br>Isolated floating output optional (Consult factory for other voltages and frequencies) |
| <b>Wave Form</b>                   | Sinusoidal   |
| <b>Total Harmonic Distortion</b>   | Less than 5% at full load  |
| <b>Efficiency</b>                  | Min 78% at full load   |
| <b>Line Regulation</b>             | Maximum 0.5%   |
| <b>Load Regulation</b>             | Maximum +/-6% from 10% load to full load   |
| <b>Output Protection</b>           | Current limiting with short circuit protection, thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow  |
| <b>EMI</b>                         | Meets EN 55022 Class A.<br>Custom filtering is available as an option  |
| <b>Load Crest Factor</b>           | Maximum 3.0 at 90% load  |
| <b>Operating Temperature Range</b> | 0° C to +50° C<br>Extended range available (Consult factory)   |
| <b>Humidity</b>                    | 5 - 95% non-condensing   |
| <b>Temperature Drift</b>           | 0.05% per °C over operating temperature range  |
| <b>Dimensions</b>                  | 8U x 19" x 17"<br>(H x L x W) enclosed case  |
| <b>Connections</b>                 | Input: Compression-type terminal<br>Output: Terminal block   |
| <b>Weight</b>                      | 70lb (31.8 kg)   |
| <b>Safety</b>                      | Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950  |
| <b>Options</b>                     | Output Fail Alarm (Form C)<br>Remote Inhibit: By connecting DC voltage (as specified) to the inhibit terminals   |

Warranty: Twenty four 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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