



ANALYTIC SYSTEMS

Power Conversion Solutions

AC/AC Frequency
Converters

Model
VFCA500



Description

The VFCA500 Series is a variable AC power source designed to deliver power at a selectable frequency between 47Hz to 424Hz.

The unit uses PWM technology and generates a pure sine-wave output with typical distortion of less than 5%. The output voltage is continuously adjustable from 0 to full scale.

The VFCA500 Series AC power source can be used as a compact AC/AC frequency converter, suitable for a wide range of applications.

It features full electronic protection, high efficiency and low output noise. The unit is fan cooled.

Benefits

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

Design Features

- ◆ Variable output voltage & frequency
- ◆ Compact size, light weight
- ◆ Sinusoidal wave shape
- ◆ Digital meters for Vrms & frequency
- ◆ Isolated, floating output
- ◆ 500VA output power
- ◆ Full electronic protection
- ◆ High reliability
- ◆ Professional quality
- ◆ Field-proven design topology

Applications

- ◆ Test Facilities
- ◆ Electric Utilities and Substations
- ◆ Telecom Power Plants
- ◆ Manufacturing Locations
- ◆ Steel Mills
- ◆ Military Applications (COTS)
- ◆ Industrial Controls
- ◆ OEM Applications
- ◆ Solar / Alternative
- ◆ Power Systems
- ◆ Fuel Cells

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VFCA500 Series Variable AC Power Supply

Input Voltage	115 or 230VAC \pm 20% 48Hz 410Hz
Input Protection	Thermal fuse, Inrush current limiting
Isolation	2250VDC input to chassis / 2250 VDC input to output / 8mm spacing 2250VDC output to chassis
Output Voltage	0 ... 260V range; max current 2A
Output frequency	47 ... 424Hz in one band
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	Max. \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	EN 55022 Class B
Load Crest Factor	Maximum 3.0 at 90% load
Operating Temperature Range	0°C to +50°C
Frequency Stability	\pm 0.1%
Temperature Drift (for output voltage level)	0.05% per °C over operating temperature range
Dimensions	8.5" x 5.1" x 14" enclosed case (W x H x L)
Connections	Input: IEC inlet connector Output: Standard AC receptacle
Weight	9 pounds (4 kg)
Safety	Full compliance to IEC950, CSA C22.2 No. 950 and UL 1950

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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