



## FCVS501 INDUSTRIAL VARIABLE FREQUENCY CONVERTER

### SERIES FCVS501

The FCVS501 Series is a variable AC power source designed to deliver power at a selectable frequency between 40Hz to 440Hz.

The unit uses PWM technology and generates a sine-wave output with typical distortion of less than 5%.

The output voltage is continuously adjustable from 0 to full scale.

The input is power factor corrected.

The FCVS501 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. The use of components with established reliability results in a high demonstrated MTBF.

The FCVS501 is manufactured at our plant under strict quality control.

Customized versions are also available.

### APPLICATIONS

- Aviation
- Industrial Controls
- Telecom Power Plants
- Railway / Transportation
- Military Applications
- Marine
- Mining
- Oil Rigs
- Steel Mills
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power
- Manufacturing Location
- OEM Applications

### FEATURES

- Variable output voltage and frequency
- Sine wave output voltage
- Digital meters for output voltage and frequency
- Isolated, floating output
- Field-proven rugged design
- Cooling by internal fan
- Filtered input and output
- Full electronic protection
- Compact size
- Light weight
- 500VA of output power



Pure  
Sinewave



High  
frequency  
technology



Light weight,  
compact size



Full electronic  
protection



Digital Meters

# SPECIFICATIONS

Input Voltage	95 - 264Vac universal input 47 ... 410Hz are standard Input current 6.6A rms max.
Power Factor	Min. 0.97 at full load for the entire input range. Meets EN61000-3-2
Input Protection	Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	2250VDC input to chassis 2250 VDC input to output 8mm spacing 2250VDC output to chassis
Output Voltage	0...264Vrms range; max. current 4Arms; max power 500VA
Output Frequency	40 ...440Hz in one band 1Hz step 50, 100, 200, 400Hz 'hot' push buttons
Frequency Stability	± 0.1%
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line/Load Regulation	Maximum ± 5% of Vout max from no load to full load
Load Crest Factor	3.0 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	Typically 80% at full load
Output Overload Protection	Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of insufficient airflow Hiccup at 4.8Arms
Output Overvoltage Protection	280Vac by internal supply voltage limiting

Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN 60950
EMI	EN 55022 Class A as a minimum
Operating Temperature	0 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 on request
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Built-in fan draws air into the unit
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Dimensions	185 x 141 x 356 mm
Weight	4 Kg
Connections	Input: IEC inlet connector Output: banana sockets on frontpanel
MTBF	120,000 hours at 45°C Demonstrated MTBF is significantly higher Fan excluded
Indicators	Digital meters for output voltage and frequency
Control Input	Switch ON/OFF Frequency Up/down buttons Frequency Pre Select buttons Voltage Up/down buttons
Alarm output	None
RoHS Compliance	Fully compliant
Warranty	2 years

