



FCVS1000 INDUSTRIAL VARIABLE FREQUENCY CONVERTER

SERIES FCVS1000

The FCVS1000 Series is a variable AC power source with an adjustable output of 0...132Vrms (maximum current 8Arms) and 0...264Vrms (maximum current 4Arms).

The unit uses PWM technology to generate a 1000VA sine-wave output with a total harmonic distortion less than 5% at full load. The input is power factor corrected.

The output frequency is adjustable from 40 to 440Hz.

The FCVS1000 Series AC power source is suitable for a diverse range of industrial, engineering and academic or laboratory applications. It can also be used as an AC frequency converter.

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

The use of components with established reliability results in a high demonstrated MTBF. The FCVS1000 is manufactured at our plant under strict quality control.

Customized versions are also available



Pure
Sinewave



High
frequency
technology



Light weight,
compact size



Full electronic
protection



Digital Meters



Optional
Remote
shutdown

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
- 1000VA of output power

SPECIFICATIONS

Input Voltage	95 - 264Vac universal input 47 ... 410Hz are standard Input current 12A 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...132Vrms range; max current 8Arms 0...264Vrms range; max current 4Arms
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 cooling Hiccup at approx. 120% of output max. current
Output Overvoltage Protection	140Vac in low range and 280Vac in high range by internal supply voltage limiting

Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458, EN 60950, EN 62368-1 and CE
EMI	EN 55032 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 fans draws air into the unit
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Dimensions	3U x 19" x 18" enclosed case Black
Weight	14 Kg
Connections	Input: terminal block Output: banana sockets on frontpanel AC receptacle on rear panel optional
MTBF	95,000 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 Remote shutdown as option
Alarm output	None
RoHS Compliance	Fully compliant
Warranty	2 years

