



FCST500 INDUSTRIAL FREQUENCY CONVERTER

SERIES FCST500

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage.

It is a mature design concept with a track record in numerous applications. The DC/DC input stage boosts the input voltage to a higher DC bus voltage, which feeds the DC/AC inverter to generate the required AC output.

The use of high frequency conversion enables a compact construction, low weight and high efficiency.

The unit has full electronic protection.

The input and output are filtered for low noise.

Cooling is by built-in high quality fans and also via baseplate to a heatsinking surface.

The use of components with established reliability results in high MTBF. The unit 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



Optional Remote shutdown



Optional Extended temperature range



Optional Output fail alarm (Form C)

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

- Single-Phase sine wave output voltage
- Field-proven rugged design
- Cooling by internal fans
- Filtered input and output
- Full electronic protection
- Compact size
- 500VA of output power

SPECIFICATIONS

Input Voltage	230Vac nominal, 47-63Hz 197-264Vac operating range Input current: 4.5Arms max
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 2250Vdc output to chassis Output is floating
Output Voltage	400Vrms (L-L)/ 3-phase at 50 or 60Hz, 0.7Arms per phase Output is floating. Neutral can be grounded Consult factory for other voltages, frequencies and options
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line/Load Regulation	± 6% from no load to full load
Load Crest Factor	2 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	85% at full load
Output Overload Protection	Current limiting with short circuit protection. Thermal shutdown with automatic recovery in case of insufficient cooling.
Output Overvoltage Protection	440Vac (L-L) 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	EN55032 Class A with margins
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	By built-in high quality fans and also conduction via base plate to customer heatsink or chassis
Environmental Protection	Basic ruggedizing Conformal coating
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	F7W: 280 x 66 x 361mm (11" x 2.6" x 14.2") Mounting holes are clear
Weight	4 Kg
Connections	Input: 6-pole terminal block with 3/8" spacing Output: 12-pole terminal block with 3/8" spacing Snap-on covers included
MTBF	110'000 hours at 45°C Demonstrated MTBF is significantly higher Fans excluded
Indicators	None
Control Input	None Remote shutdown as option
Alarm output	None Optional output Fail Alarm (Form C)
RoHS Compliance	Fully compliant
Warranty	2 years

