

250VA Rugged, Industrial Quality, Frequency Converter with Sine Wave Output FC 250 Series



- Rugged construction
- Sinusoidal output voltage
- Filtered input
- Conduction/convection cooled
- Full electronic protection
- Field-proven design topology

This rugged, AC/AC frequency converter uses field proven, microprocessor-controlled technology to generate 250VA continuous output power with pure sine wave output voltage. It is a mature design with a track record in numerous applications. The AC/DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output. Cooling is via baseplate to a heatsinking surface and by natural convection. The 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. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

115 or 230Vac, +/-15%
47 ... 410Hz are standard
Factory set for required input

Input Protection

Inrush current limiting
Varistors
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250Vdc input to chassis/output

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN60950

EMI

EN 55022 Class A
as a minimum

Output Voltage

115Vac @ 60Hz or
400Hz/2.17A rms continuous;
or 230Vac @ 50Hz/1.08A rms
continuous.
Output is floating
Consult factory for other outputs

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

± 2% load regulation option is
available

Load Crest Factor

Maximum 2.5 at 90% load

Output Noise

High frequency ripple is less
than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit
protection.
Thermal shutdown with automatic
recovery in case of insufficient
cooling

Output Overvoltage Protection

140Vac (for 115Vac output) or
280Vac (for 230Vac output) by
internal supply voltage limiting

Efficiency

Typically 78% at full load

Operating Temperature Range

0° C to +50° C for full specification
without derating.
Extended temperature ranges
available

Temperature Drift

0.05% per °C over operating
temperature range

Cooling

Conduction via base plate to
customer heatsink or chassis and
natural convection

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal
coating available as an option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

Min. 95,000 hours at 45°C
Demonstrated MTBF is
significantly higher

Indicators

None

Control Input

None

Alarm Output

None
Option: output fail alarm (Form C)

Package/Dimensions (W x H x L)

F3: 132 x 64 x 300 mm
(5.2" x 2.5" x 11.8") including
mounting flanges and terminals.

Weight

2 kg (4.4 lb)

Connections

12 pole barrier type terminal block
with 3/8" spacing

RoHS Compliance

Fully compliant

Warranty

Two years subject to application
within good engineering practice

Terminal Block Pin-out

OUTPUT							INPUT				
NOT USED	L1	L2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	GND	N	PH	
1	2	3	4	5	6	7	8	9	10	11	12

Enhancements to these general specifications can be accommodated upon request. Specifications are subject to change

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-proved Facility.



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