

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



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

This rugged, AC/AC frequency converter utilizes 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 bus 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. Full electronic protection, generous design headroom and the exclusive use of components with established reliability contribute to high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

115 or 230Vac $\pm 15\%$
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
4300Vdc input to output
2250Vdc output to chassis
Floating output

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN60950-1

EMI

EN 55022 Class A
with margins

Output Voltage

115Vac @ 60Hz or 400Hz
/2.17A rms continuous;
or 230Vac @ 50Hz/1.08A rms
continuous.

Output is floating, either terminal can be grounded
Other outputs are available on request.

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

$\pm 2\%$ load regulation option is available

Load Crest Factor

2 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 80% at full load

Operating Temperature Range

0° C to +50° C for full specification
Extended temperature ranges available

Temperature Drift

0.05% per °C over operating temperature range

Cooling

Conduction to customer heat-sink 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. 110,000 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	NOT USED	NOT USED	GND	N	PH
1	2	3	4	5	6	7	8	9	10	11	12	
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Please note that ABSOPULSE power supplies are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic 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-approved Facility.



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