

1000W Rugged, Industrial Power Supply with PFC-Input in 5" X 5" X 12" Package PFC 1K Series



- Compact size
- Electronic power factor correction
- Adjustable output
- Full electronic protection
- Robust industrial quality
- Field-proven design

The PFC 1K Series rugged, industrial quality AC/DC power supply with power factor corrected input uses a field proven design to generate up to 1000W output power. It has an excellent track record in numerous heavy-duty applications. Cooling is by a built-in fan, with additional conduction via the baseplate. It has full electronic protection. Low component count, large design headroom, and the use of components with established reliability result in a high MTBF. The chassis has four M6 PEM nuts for mounting on the under-surface. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

95VAC to 264VAC
47 - 63Hz
Input current 13A max at 95V

Power Factor is 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

Input Isolation

2250VDC input to chassis
4300VDC input to output
8mm spacing
500VDC output to chassis

Standards

Compliance to EN60950 and related standards
Please consult factory for approval status for the requested input/output configuration

EMI

Meets and EN 55022 Class A with wide margins

Switching Frequency

55kHz +/- 3kHz

Hold-up Time

Min. 10ms at full load for 5% drop of output voltage

Output Voltages

12V/75A; 24V/40A; 48V/20A; are standard
+/-5% adjustable
Output is floating, either terminal can be grounded
Consult factory for other voltages

Redundancy Diode

Not installed
Available as option

Line/Load Regulation

+/-1% combined from zero load to full load.

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

Output Overload Protection

Rectangular current limiting with short circuit protection
Thermal shutdown with automatic reset in case of insufficient airflow

Output Overvoltage Protection

Double regulator loop

Efficiency

80% - 84% at full load, depending on output voltage

Operating Temperature Range

0 to +50 °C for full specification with proper cooling
Extended temp. range available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Forced air by two built-in fans and conduction to customer heatsink or chassis

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating available as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

120,000 hours @ 45 °C
Demonstrated MTBF is significantly higher.

Indicators

None

Control Input

None

Alarm Output

None
Available as option

Dimensions (W x H x L)

U5512: 127 x 127 x 315mm
(5" x 5" x 12.4") enclosed case
Four M6 PEM nuts for mounting on the under-surface

Weight

5.2 kg (11.5 lb.)

Connections

Barrier-type terminal block and brass studs for higher output current

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice



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