

500W, Rugged, Industrial Quality AC/DC Power Supply with PFC-Input PFC 65F-FT Series



- Electronic power factor correction (PFC)
- Rugged, industrial quality
- Field-proven design
- Full electronic protection
- N+1 redundancy as an option

The PFC 65F series rugged, industrial quality AC/DC power supply with power factor corrected input uses a field proven design to generate 500W output power. It has an excellent track record in numerous heavy-duty applications. Cooling is by built-in fans, 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 unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

Universal 95 ... 264Vac
47 - 420Hz

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

Isolation

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

Standards

Designed to meet EN 60950 and related standards

EMI

EN55022 Class A with margins

Switching Frequency

50-150KHz for boost section (dependent on the load)
55 KHz +/-3KHz for the DC/DC (half-bridge) section

Hold Up Time

Min. 10ms at any input for 5% drop in the output voltage

Output Voltage/Current

12V/40A, 24V/20A or
48V/10A standard.
Consult factory for other voltages

Redundancy Diode

On request

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

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

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient cooling (self resetting)

Output Over-voltage Protection

Second regulator loop.
Typically set at 120% of nominal output voltage

Efficiency

Output voltage dependent .
Typically 80% at full load

Operating Temperature Range

0°C to 50°C cold plate temperature for full specification without derating
Extended temperature 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
Full ruggedizing and conformal coating on request

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

130,000 hours @ 45°C (fans excluded)
Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Alarm Output

None on standard version

Package/Dimensions (W x H x L)

FF3: 153 x 64 x 300 mm (6.1" x 2.5" x 11.8") including terminal block, flanges and fans
Mounting holes are clear

Weight

2.3 Kg (5.0 lb)

Connections

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

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice



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