

200W, Rugged Industrial Quality Power Supply PFC 200-FT Series



- Rugged Industrial quality
- Electronic power factor correction (PFC)
- Conduction/convection cooling
- Full electronic protection
- Large design headroom
- Most versions are available from stock

The PFC 200 Series rugged, industrial quality AC/DC power supply with power factor correction (PFC) utilizes field-proven topology to generate 200W output power. It is a mature design with a track record in numerous applications. The unit has two output terminals: a "Redundant" via a built-in redundancy diode, and "Non-Redundant" which is direct. Cooling is via base plate to a heat-sinking surface and by natural convection. Full electronic protection, low component count, large design headroom, and the use of components with established reliability result in a high MTBF. The PFC 200 is manufactured at our plant under strict quality control. For customized versions with additional options, and for Eurocard plug-in modules, the PFC 53 series will remain available.

SPECIFICATIONS

Input Voltage

Universal 95 ... 264Vac
47 - 420Hz

Input current 2.6 Arms max.

Power factor is better than 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 minimum

Switching Frequency

50-150KHz 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/16A; 24V/8A, 48V/4A or 125V/1.6A on the "Redundant" output
Voltage on the "Direct" terminal is one diode drop higher.
Output is floating; either terminal can be grounded.
Consult factory for other voltages

Redundancy Diode

Installed internally on the "Redundant" terminal

Line/Load Regulation

+/- 1% combined from zero load to full load on the "Direct" output

Dynamic Response

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

Output Ripple / Noise

Less 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 (no hiccup)
Thermal shutdown in case of insufficient cooling (self resetting)

Output Overvoltage Protection

Double regulator loop completely stable and independent of main loop

Efficiency

80% - 87% at full load, depending on output voltage

Operating Temperature Range

0°C to +50°C cold plate temperature range for full specification without derating (For extended temperature range see PFC 53 Series)

Temperature Drift

0.03% per °C over operating temperature range

Cooling

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

Environmental Protection

Basic ruggedizing

MTBF

150,000 hours @ 45 °C
Demonstrated MTBF is significantly higher.

Indicators

Green "Output ON" LED visible through the cooling slots

Control Input

None

Alarm Output

Form C contacts

Package/Dimensions (W x H x L)

F2: 114 x 58 x 256 mm (4.5" x 2.3" x 10.1") including terminal block and flanges
Mounting holes are clear

Weight

1.2 kg (2.6 lb)

Connections

9-pole barrier type terminal block with 3/8" spacing

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

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

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



ABSOPULSE ELECTRONICS LTD

110 Walgreen Road
Ottawa, Ontario. K0A 1L0. CANADA
Tel: +1-613-836-3511 Fax: +1-613-836-7488
E-mail: absopulse@absopulse.com
<http://www.absopulse.com>