

## 100 - 180W, Rugged, Industrial Quality AC/DC Power Supply with PFC Input

### PFC 100-FT and PFC 150-FT Series

- Electronic power factor correction (PFC)
- Rugged Industrial quality
- Field proven design
- Conduction/convection cooling
- Full electronic protection



PFC 100 in F1 chassis



PFC 150 in F2 chassis

This rugged, industrial quality AC/DC power supply with power factor corrected input utilizes field proven technology to generate the required output power. It has an excellent track record in numerous demanding applications. Cooling is via baseplate to a heatsinking surface and by natural convection. Full electronic protection, low component count, large design headrooms, and the exclusive use of components with established reliability contribute to a high MTBF. All of our products are manufactured at our plant under strict quality control.

#### SPECIFICATIONS

##### Input Voltage

95-264Vac universal operating range; 47... 63Hz  
Power Factor is better than 0.97 at full load for the entire input range.  
Meets EN61000-3-2  
DC-input versions also available

##### 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  
700VDC output to chassis

##### Standards

Designed to meet EN60950-1 and corresponding UL and CSA standards

##### EMI

EN 55022 Class A with margins

##### Switching Frequency

Input stage: 50kHz-150kHz load dependent  
Output stage: 47kHz  $\pm$  2kHz

##### Hold Up Time

Min. 5msec at any input for 5% drop of the output voltage

##### Output Voltage/Current

12V, 24V or 48V are standard  
Output is floating; either terminal can be grounded  
Other outputs available on request

##### Redundancy Diode

Not installed

##### Line/Load Regulation

$\pm$  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 0.2% rms or 1% peak-to-peak of the output voltage (20MHz BW)

##### Output Overload Protection

Rectangular current limiting with short-circuit protection  
Thermal shutdown in case of insufficient cooling (self-resetting)

##### Output Overvoltage Protection

Double regulator loop completely stable and independent of main loop

##### Efficiency

Typically 80% at full load

##### Operating Temperature Range

0 °C to 50 °C for full specification  
Extended temperature range available

##### Temperature Drift

0.03% per °C over operating temperature range

##### Cooling

Conduction to customer heat-sink or chassis and natural convection

##### Environmental Protection

Basic ruggedizing  
Heavy ruggedizing and conformal coating available as an 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 on standard version

##### Control Input

None

##### Alarm Output

None

##### Package / Dimensions (W x H x L)

###### For PFC 100

F1: 114 x 51 x 201 mm  
(4.5" x 2" x 7.9")

###### For PFC 150

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

##### Weight

F1: 0.8 kg (1.8 lb)  
F2: 1.2 kg (2.6 lb)

##### Connections

9 pole screw type terminal block, 3/8" spacing

##### RoHS Compliance

Fully compliant

##### Warranty

Two years subject to application within good engineering practice  
Contamination related items and shipping costs not included.

##### PFC 100 Terminal Block Pin-Out

DC OUTPUT						AC INPUT		
NOT USED	-	+	NOT USED	NOT USED	NOT USED	GND	PH	N
1	2	3	4	5	6	7	8	9

##### PFC 150 Terminal Block Pin-Out

			OUTPUT			INPUT		
NOT USED	NOT USED	NOT USED	-	+	NOT USED	GND	PH	N
1	2	3	4	5	6	7	8	9

Model Name	Output Power Range	Chassis
PFC 100	100 – 120W	F1
PFC 150	150 – 180W	F2



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