200W, Rugged Industrial Quality AC/DC Power Supply
PFU 200-FT-1U Series

- Electronic power factor correction (PFC)
- Rugged industrial quality
- Conduction/convection cooling, no fans
- Full electronic protection
- N+1 redundancy available

This rugged, industrial quality AC/DC power supply with PFC input uses field proven technology to generate up to 200W output power. It is built on 3.6" x 10.6" size PCB and installed in a standard F4212 package. An optional built-in redundancy diode allows for parallel and N+1 operation. The cooling is combined: natural air convection and conduction via base plate. 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
95-264Vac (Universal) 47… 63Hz
Input Current: 2.6Arms max.at 95V
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 EN60950-1 and related standards.
Meets requirements for CE marking

EMI
EN 55022 Class A with margins

Switching Frequency
50-150kHz input stage (load dependent)
55kHz +/-3kHz for the output stage

Output Voltage/Current
24Vdc ± 0.3V/8A
48Vdc ± 0.3V/4A or
125Vdc ± 0.3V/1.6A
200W continuous
Output is floating; either terminal can be grounded
Consult factory for other outputs

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)

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

Output Overvoltage Protection
Second regulator loop, completely stable and independent of main regulator loop

Efficiency
Output voltage dependent
Typically 80% at full load

Operating Temperature
0 °C to 50 °C cold plate temperature range for full specification
Extended temperature range available on request

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
Heavy ruggedizing and conformal coating as option

Shock/Vibration
IEC 61373 Cat 1 A&B

Humidity
5-95% non-condensing

MTBF
130,000 hours @45 °C
Demonstrated MTBF is significantly higher.

Indicators
Green "Output ON" LED visible through the cooling slots

Control Input
None

Alarm Output
None

Package / Dimensions (W x H x L)
F4212: 102 x 43 x 305 mm
4.0" x 1.7"(1U) x 12.0"
Mounting holes are clear

Weight
1kg (2.2 lb)

Connections
8-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

AC INPUT			DC OUTPUT				
N ~	PH ~	GND ⏚	N/A	N/A	N/A	−	+
1	2	3	4	5	6	7	8

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