

SPECIFICATION

Model: P1400P 1F48
1U 400W 48VDC out PFC
Universal Input
Industrial Grade Power Supply
(closed frame)

Specification subject to change without prior notice.
(unless we have an agreement with you on file.)



3261 Keller St.
Santa Clara, CA 95054
Tel: 408-980-9813
Fax: 408-980-8626
E-mail: info@topmicro.com

This specification is for a 400W ATX switching mode power supply in 1U closed frame form factor with active PFC and forced fan cooling.

1. Input Characteristics:

1.1 Input Voltage Range --- 90~264Vac, full range with active power factor 90% min

1.2 Input Frequency Range --- 47Hz to 63Hz.

1.3 Input Ac Current (Max) --- 8.0A Max, full load.

1.4 Inrush Current --- At 132Vac / 264Vac, full load condition, no damage occur, input fuse shall not blow.

1.5 Efficiency --- 63% min, at nominal line input full load.

1.6 Input Leakage Current --- Leakage current from line to ground will be less 3.5mA rms, measurement will be made at 240Vac/60Hz.

2. Output Characteristics:

2.1 Static Output Characteristics.

	Output Voltage	Load Range		Regulation		Ripple Max mV P-P	Ripple & Noise	
		Min.	Max.	Min.	Max.		Max. mV P-P	
1.	+48.0 V	0.0 A	8.3A	- 5 %	+ 5 %	200 mV	250	mV

Note:

- Noise Test --- Noise bandwidth is from Dc to 20MHz.
- Ripple frequencies greater than 1 MHz shall be attenuated by the measurement system.
- Add 0.1uF / 10uF capacitor at output connector terminals for ripple & noise measurements.
- The total output power shall not exceed 400W.

2.2 Dynamic Output Characteristics:

2.2.1 Initial Delay Time --- NONE.

2.2.2 Rise Time --- 50 mS max, at nominal line full load.

2.2.3 Turn-on Delay Time --- 600mS max, at nominal line full load.

2.2.4 Hold-up Time --- 16mS min, at nominal line full load.

2.2.5 Transient Overshoot --- 10% Max. of delay state after load change of 25% within the range of 50% to 100% of full load.

2.2.6 Temperature Coefficient --- 0.03% per °C max.

3. Protections:

3.1 Over Voltage Protection --- Standard on +48V output set at 53Vdc – 60Vdc.

3.2 Short Circuit Protection --- A short circuit placed between DC return and output shall cause no damage and the power supply shall shutdown.

3.3 Over Power Protection --- The power supply can use electronic circuit to limit the output. Power against excessing +120% - 170% of full load, or protected against excessive power delivery due to short circuit of any output or over total power.

3.4 No load Operation --- No parts damaged on power supply.

4. Dielectric Withstand Voltage:

4.1 Primary to Secondary ----- 1500Vac for 1 minute, or 2200Vdc for 3 sec.

4.2 Primary to Safety Ground --- 1500Vac for 1 minute, or 2200Vdc for 3 sec.

4.3 Insulation Resistance ----- Primary to safety ground - 500Vdc, 100M ohms min.

5. Conducted EMI: Internal Filter Can Meet.

5.1 FCC Requirement --- Part15, SUB-Part J, Computing Devices “ Class A “ Limits.

5.2 VDE Requirement --- Class “ A “ (General Operating Permit) Requirements Of VFG 234/1991.

5.3 CISPR Requirement --- Class “ A “ Requirements Of CLSPR 22.

5.4 Harmonic Requirement --- IEC10000-3-2 & IEC10000-3-3 Class “ D “.

6. Product Safety: This Power Supply Is Designed Can Meet The Following Spec.

6.1 UL/CUL ----- UL60950

6.2 TUV ----- EN 60950

7. Environment:

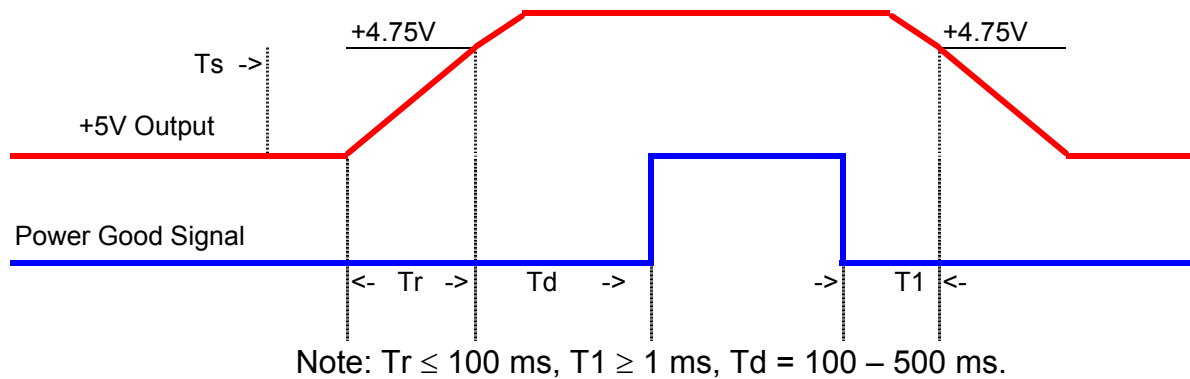
- 7.1 Operation Temperature ----- Air temperature 0 °C to 50 °C.
- 7.2 Operation Relative Humidity ----- 20% to 90%.
- 7.3 Storage Temperature ----- Air temperature -20 °C to 60 °C.
- 7.4 Storage Relative Humidity ----- 5% to 95%.
- 7.5 Altitude ----- Operate properly at any altitude between 0 to 100,000 feet, storage 40,000 feet.
- 7.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 minutes per cycle; 30 minutes for each axis (X,Y,Z).

8. Burn-In

- 8.1 Burn-In ----- At 45 °C, max. load, 4 hours.

9. Mean Time Between Failure ----- 100 KHrs minimum at 75% load for 25 °C ambient temperature.

10. Power-Good Signal:



11. Dimension

- 11.1 W x H x D ----- 80.0 x 40.0 x 197.0(mm)