SPECIFICATION

Model: P6300P 2F

300W 2U Industrial Grade Power Supply Auto Ranging with PFC



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

Specification subject to change without prior notice unless we have a written agreement.

1. Input Characteristics:

- 1.1 Input Voltage Range ------ 90Vac To 264Vac, With Active Power Factor 90% Min.
- 1.2 Input Frequency Range ------ 47Hz To 63Hz.
- 1.3 Input Ac Current (Max) ------ 6.3A Max. @115Vac, 4A Max. @230Vac Full Load.
- 1.4 Inrush Current ----- At 132Vac / 264Vac, Full Load Condition, No Damage Occured. Input Fuse Shall Not Blow.

1.5 Efficiency ------ 65% 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	Load Range		Regulation		Ripple Max	Ripple & Noise
	Voltage	Min.	Max.	Min.	Max.	mV P-P	Max. mV P-P
1.	+3.3 V	0.3 A	22.0 A	- 5 %	+5%	50 mV	100 mV
2.	+5.0 V	2.5 A	30.0 A	- 5 %	+5%	50 mV	100 mV
3.	+12.0 V	0.5 A	11.0 A	- 5 %	+ 5 %	100 mV	150 mV
4.	-5.0 V	0.0 A	1.0 A	- 10 %	+ 10 %	150 mV	200 mV
5.	-12.0 V	0.0 A	1.0 A	- 10 %	+ 10 %	150 mV	200 mV
6.	SB +5.0 V	0.0 A	1.5 A	- 5 %	+ 5 %	100 mV	100 mV

Note:

- 1. Noise Test ----- Noise Bandwidth Is From Dc To 20MHz.
- 2. Ripple Frequencies Greater Than 1 MHz Shall Be Attenuated By the Measurement System.
- 3. Add 0.1uF / 10uF Capacitor At Output Connector Terminals For Ripple & Noise Measurements.
- 4. Combined Total Power From +3.3V And +5V Rails Shall Not Execeed 150W.
- 5. The Total Output Power Shall Not Exceed 300W.

2.2 Dynamic Output Characteristics:

2.3.1 Initial Delay Time ----- NONE.

- 2.3.2 Rise Time ------ 50 mS Max. At Nominal Line Full Load.
- 2.3.3 Turn-on Delay Time ----- 600mS Max. At Nominal Line Full Load.
- 2.3.4 Hold-up Time ------ 16mS min. For + 5V Output At Nominal Line Full Load.

2.3.5 Transient Overshoot --- 10% Max. Of Delay State After Load Change Of 25% Within The Range Of 50% To 100% Of Full Load.

2.3.6 Temperature Coefficient ----- 0.03% Per °C Max.

3. Protections:

- 3.1 Over Voltage Protection --- Standard On +3.3V Output Set At 3.7Vdc 4.5Vdc. +5.0V Output Set At 5.7Vdc – 6.5Vdc. +12.0V Output Set At 13.5Vdc – 14.5Vdc.
- 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 ----- UL1950
 - 6.2 TUV ----- EN 60950

7. Environment:

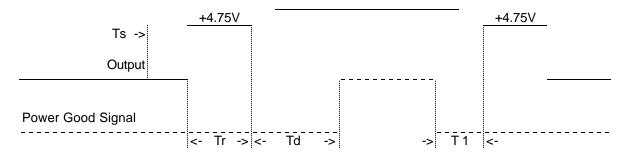
- 7.1 Operation Temperature ------ Air Temperature 0 °C To 50 °C.
- 7.2 Operation Relative Humidity ------ 20% To 90%.
- 7.3 Storage Temperature ------ Air Temperature -20 °C To 60 °C.
- 7.4 Storage Relative Humidity ----- 5% To 95%.
- 7.5 Altitude ------ Operate Properly At Any Altitude Between 0 To 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:



Note: $Tr \le 100 \text{ ms}$, $T1 \ge 1 \text{ ms}$, Td = 100 - 500 ms.

11. Dimension

11.1 W x H x D ------ 100.0 x 70.0 x 205.0 (mm)