

SPECIFICATION

300W ATX 2U
48VDC Input
Industrial Grade Power Supply

Model: P6300P-48 2U

Specification subject to change without prior notice.



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

1. Input Characteristics

1.1 Input Voltage Range ----- -38Vdc to -72Vdc,

1.2 Input Dc Current (Max) ----- 11.0A Max. Full load.

2. Output Characteristics

2.1 Static Output Characteristics.

	Output Voltage	Load Range		Regulation		Ripple Max mV P-P	Ripple & Noise Max. mV P-P
		Min.	Max.	Min.	Max.		
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:

- 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.
- Combined total power from +3.3V and +5V rails shall not exceed 160W
- The total output power shall not exceed 300W.

2.2 Dynamic Output Characteristics:

2.2.1 Rise Time ---- 100 ms Max. at nominal line full load.

2.2.2 Turn-on Delay Time ----- 600mS Max. at nominal line full load.

2.2.3 Hold-up Time ----- 16 ms Min. for + 5V output at nominal line full load.

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

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

3. Protections

- 3.1 Over Voltage Protection --- Standard on +3.3V output set at 4.10Vdc at +/-0.40Vdc.
+5.0V output set at 6.25Vdc at +/-0.75Vdc.
+12.0V output set at 14.6Vdc at +/-1.0Vdc.
- 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 +150% 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 1800Vac for 1 Sec.
- 4.2 Primary to Safety Ground --- 1500Vac for 1 minute. Or 1800Vac for 1 Sec.
- 4.3 Insulation Resistance --- Primary to safety ground - 500Vdc, 50M ohms Min.

4. Environment

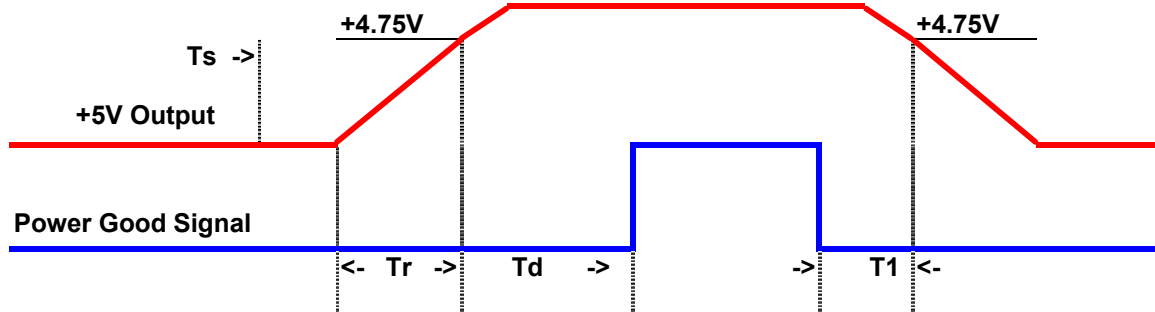
- 4.1 Operation Temperature ----- Air temperature 0 °C to 50 °C.
- 4.2 Operation Relative Humidity ----- 20% To 90%.
- 4.3 Storage Temperature ----- Air temperature -20 °C to 60 °C.
- 4.4 Storage Relative Humidity ----- 5% to 95%.
- 4.5 Altitude ----- Operate properly at any altitude between 0 to 100,000 feet. Storage 40,000 Feet.
- 4.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 minutes per cycle; 30 minutes for each axis (X,Y,Z).

5. Burn-In

- 5.1 Burn-In ----- At 45 °C, Max. load, 4 hours.

6. Mean Time Between Failure ----- 150 KHrs minimum at full load for 25 °C ambient temperatures.

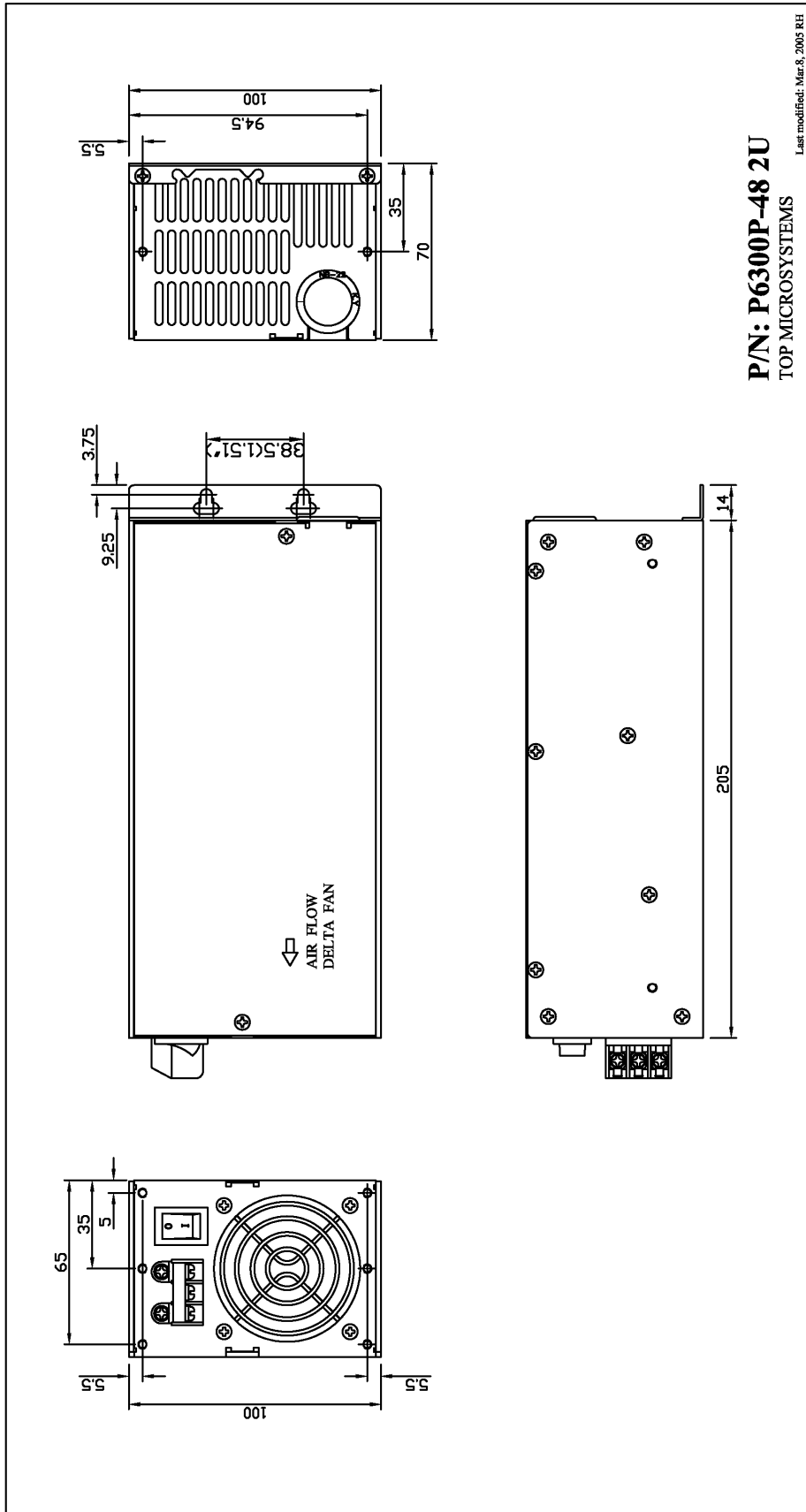
7. Power-Good Signal



Note: $T_r \leq 100 \text{ ms}$, $T_1 \geq 1 \text{ ms}$, $T_d = 100 - 500 \text{ ms}$.

8. Dimension

8.1 W x H x D ----- 100.0 x 70 x 205 (mm)



		REVISIONS		
NO	DESCRIPTION	DATE	APPROVED	
CONN	FIN	COLOR	OUTPUT	LENGTH
1	BROWN	+3.3V/S+		
2	BROWN	+3.3V		
3	BLACK	G,3.3V/S-		
4	RED	+5V		
5	BLACK	GND		
6	RED	+5V		
7	BLACK	G, +5V, S-		
8	ORANGE	PG		
9	PURPLE	+5V/SB		508.0(20.0)
10	YELLOW	+12V, S-		+50.8(2.0)
11	BROWN	+3.3V		-25.4 (1.0)
12	BLUE	-12V		
13	BLACK	GND		
14	GREEN	PS-ON		NOTE 1
15	BLACK	GND		
16	BLACK	GND		
17	BLACK	GND		
18	WHITE	-5V		
19	RED	+5V		
20	RED	+5V, S+		
1	BLACK	GND		508.0(20.0)
2	BLACK	GND		+50.8(2.0)
3	YELLOW	-12V		-25.4 (1.0)
4	YELLOW	-12V		
1	BLACK	GND		
2	BLACK	GND		
3	BLACK	GND		508.0(20.0)
4	BROWN	+3.3V		+50.8(2.0)
5	BROWN	+3.3V		-25.4 (1.0)
6	RED	+5V		
1	YELLOW	-12V		508.0 (20.0)
2	BLACK	GND		+50.8(2.0)
3	BLACK	GND		-25.4 (1.0)
4	RED	+5V		
1	YELLOW	-12V		152.4(6.0)
2	BLACK	GND		$\pm 12.7 (0.5)$
3	BLACK	GND		
4	RED	+5V		
1	RED	-12V		152.4 (6.0)
2	BLACK	GND		
3	BLACK	GND		
4	YELLOW	+5V		$\pm 12.7(0.5)$

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NOTE: POWER ON-TTL ACTIVE LOW.
2 +5V (S+S) -12V(S-) FOR
REDUNDANT SYSTEM ONLY.

P1 HOUSING MOLEX 39-01-2200
SOCKET MOLEX 39-00-0039

P14 HOUSING MOLEX 39-01-2040
SOCKET MOLEX 39-00-0039

P14 HOUSING MOLEX 3931
SOCKET MOLEX 08-50-0276

PA, PB, PC, PG, PH HOUSING AMP 1-48024-0
SOCKET AMP 60619-1

PM, PN HOUSING AMP 171922-4
SOCKET AMP 17204-1

TOP MICROSYSTEMS

DATE DATE DATE

APPROVED CHECKED DESIGNED

TITLE CABLE

SCALE : MM(INCHES)

TOLERANCES:
XX ±.10
XXX ±.010

REVISIONS

DATE APPROVED

PART NO. P6300P-48 2U

DRAWING NO. REV.

MODEL NO. SHEET

Last modified Mar. 16, 2005 RH