

# SPECIFICATION

300W ATX  
PS/2 Form Factor  
Industrial Grade Power Supply  
(With Active PFC)

Model: P6300PS PFC

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



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## 1. Input Characteristics

- 1.1 Input voltage range ----- 90VAC to 264VAC
- 1.2 Input frequency range ----- 47Hz to 63Hz
- 1.3 Input AC current (max.) ----- 7A @ 115VAC, 4A @ 230VAC full load
- 1.4 Inrush current ----- At 132VAC / 264VAC, full load condition, no damage shall occur.  
Input fuse shall not blow.
- 1.5 Efficiency ----- 65% min. at typical line input full load.
- 1.6 Input leakage current ----- Leakage current from Line to Ground will be less than 3.5mA rms.  
Measurement will be made at 240VAC / 60Hz.
- 1.7 Power factor ----- > 0.95

## 2. Output Characteristics

### 2.1 Static output characteristics.

	Output Voltage	Load Range		Surge 10 Sec.	Regulation		Ripple Max. mV P-P	Ripple & Noise Max. mV P-P
		Min.	Max.		Min.	Max.		
1.	+3.3V	0.3A	20.0A		-5%	+5%	50mV	100mV
2.	+5.0V	2.5A	32.0A		-5%	+5%	50mV	100mV
3.	+12.0V	0.5A	11.0A	13.0A	-5%	+5%	100mV	150mV
4.	-5.0V	0.0A	1.0A		-10%	+10%	150mV	200mV
5.	-12.0V	0.0A	1.0A		-10%	+10%	150mV	200mV
6.	+5VSB	0.0A	1.0A		-5%	+5%	100mV	100mV

#### 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.

### 2.2 Dynamic output characteristics:

- 2.2.1 Rise time ----- 100mS 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 ----- 16mS 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. Protection

- 3.1 Over voltage protection ----- Standard on +3.3V output set at 4.10VDC at  $\pm 0.40$ VDC  
+5.0V output set at 6.25VDC at  $\pm 0.75$ VDC  
+12.0V output set at 14.6VDC at  $\pm 1.0$ VDC

- 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 exceeding +150% of full load, and protect against excessive power delivery due to a short circuit of any output or over total power.
- 3.4 No load operation ----- No parts shall be damaged on the power supply.

## 4. Dielectric Withstand Voltage

- 4.1 Primary to secondary ----- 1500VAC for 1 minute, or 1800VDC for 1 second.
- 4.2 Primary to safety ground --- 1500VAC for 1 minute or 1800VDC for 1 second.
- 4.3 Insulation resistance ----- Primary to safety ground - 500VDC, 50M ohms min.

## 5. Conducted EMI (internal filter meets the following)

- 5.1 FCC requirement ----- Part 15, Sub-Part J, Computing devices "Class B" limits.
- 5.2 CISPR requirement ----- "Class B" requirements of CISPR22.
- 5.3 VCCI ----- "Class 2"

## 6. Product Safety

- 6.1 UL/CUL ----- UL1950 (file #E176899)
- 6.2 TUV ----- EN60950 (file #R9839237)

## 7. Environment

- 7.1 Operation temperature ----- Ambient air temperature 0°C to 50°C.
- 7.2 Operation relative humidity ----- 20% to 90%.
- 7.3 Storage temperature ----- Ambient air temperature -20°C to +60°C.
- 7.4 Storage relative humidity ----- 5% to 95%.
- 7.5 Altitude ----- Operates properly at any altitude between 0 to 10,000 feet.  
Storage up to 40,000 feet.
- 7.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 minute per cycle. 30 minutes for each axis (X, Y, Z).

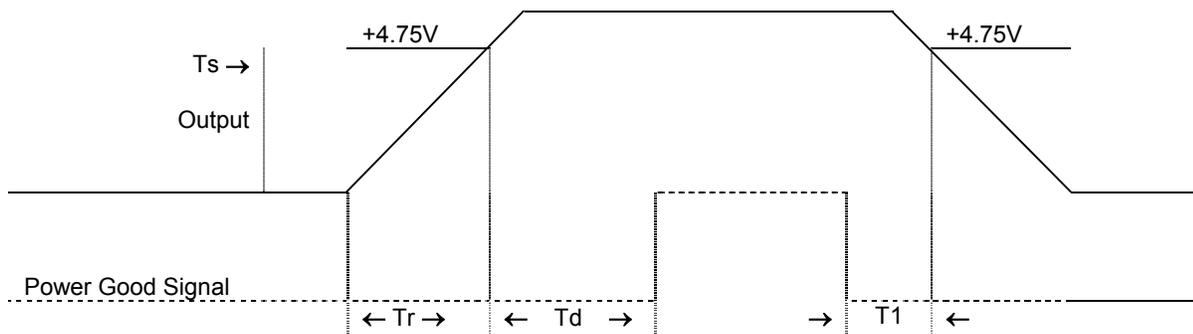
## 8. Burn-In

8.1 Burn-in ----- 40°C at full load per burn-in specification.

## 9. Mean Time Between Failure

9.1 MTBF ----- 100K hours minimum at 75% load at 25°C ambient temperature.

## 10. Power-Good Signal



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

## 11. Dimensions (W x H x D ----- 150mm x 86mm x 140mm)