



1U

SWITCHING POWER SUPPLY SPECIFICATION

CP-81025

CLAYPOWER
C O M P A N Y

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1. Input Characteristics:

1.1 Input Voltage Range --- 100~240Vac, 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 --- 70% min, at nominal line input full load.

1.6 Input Leakage Current --- Leakage current from line to ground will be less 10mA 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 Max. mV P-P
	Min.	Max.	Min.	Max.		
1. +3.3 V	0.5A	20.0 A	- 5 %	+ 5 %	50 mV	100 mV
2. +5.0 V	0.3 A	25.0 A	- 5 %	+ 5 %	50 mV	100 mV
3. +12.0 V	1.0A	20.0 A	- 5 %	+ 5 %	100 mV	150 mV
4. -5.0 V	0.0 A	0.5A	- 10 %	+ 10 %	150 mV	200 mV
5. -12.0 V	0.0 A	0.5 A	- 10 %	+ 10 %	150 mV	200 mV
6. SB +5.0 V	0.3 A	3.0 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 exceed 150W.
5. The total output power shall not exceed 250W.

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. for + 5V output 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 +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 +115% - 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 2200Vdc for 3 sec.

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

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

5. Conducted EMI: Internal Filter Can Meet.

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

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

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

5.4 Harmonic Requirement --- IEC61000-3-2 & IEC61000-3-3 Class “ D “.

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

6.1 UL/CUL ----- UL60950-1

6.2 TUV ----- EN 60950-1

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.

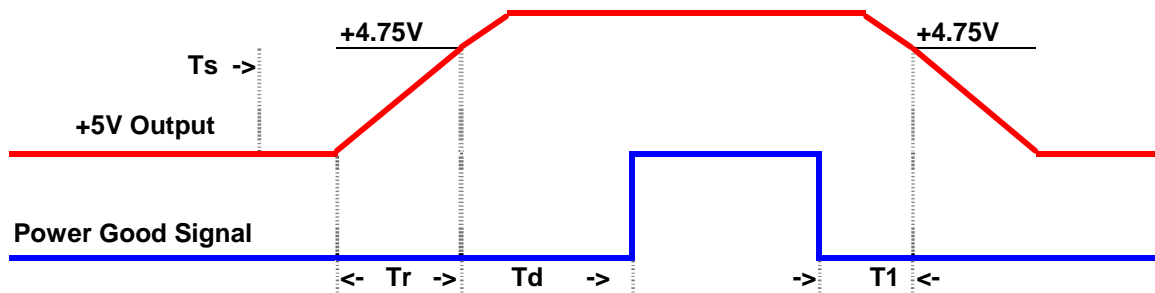
7.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 minutes per cycle; 30 minutes for each axis (X,Y,Z).

8. Burn-In

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

9. Mean Time Between Failure ----- 60 KHrs minimum at 75% load for 25 °C ambient temperature.

10. Power-Good Signal:

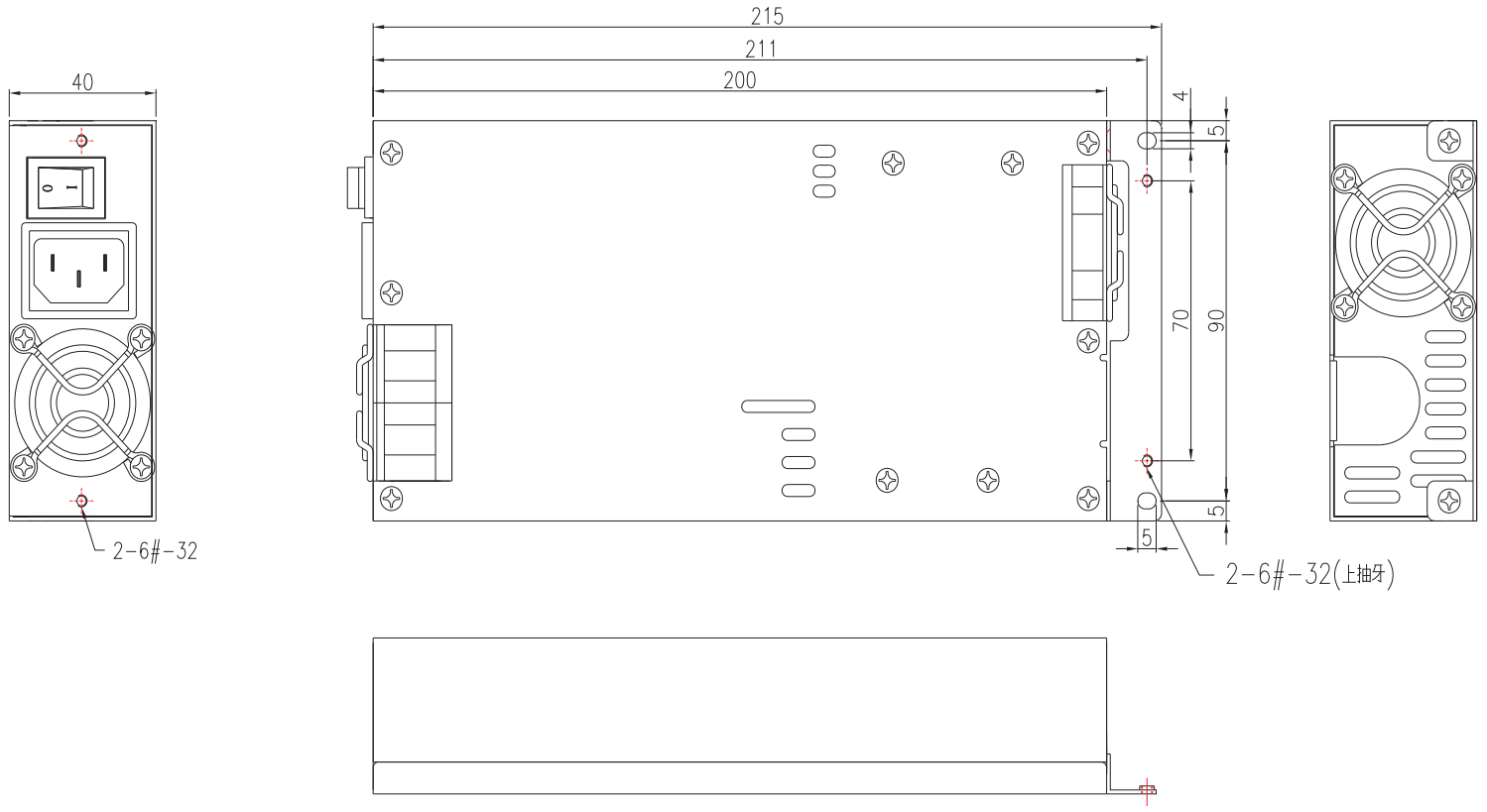


Note: $T_r \leq 100$ ms, $T_1 \geq 1$ ms, $T_d = 100 - 500$ ms.

11. Dimension

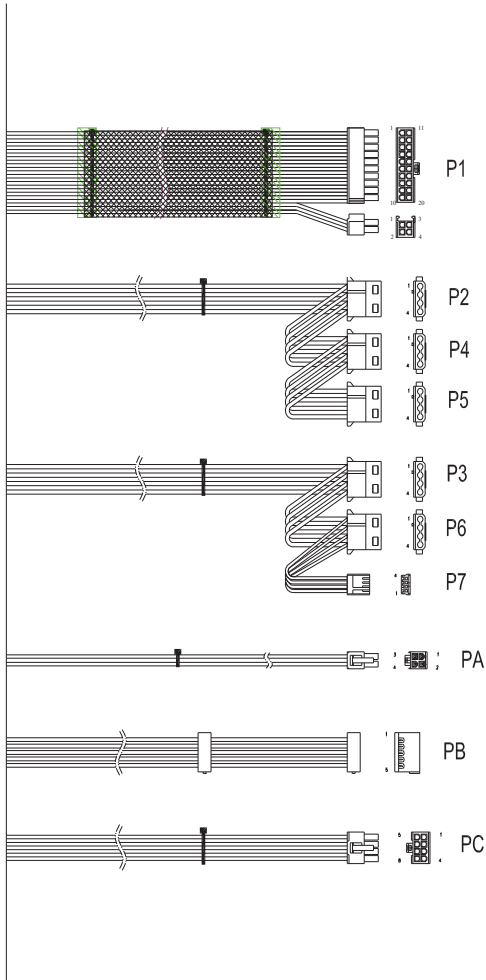
11.1 W x H x D ----- 100.0 x 40.0 x 200.0 (mm)

REVISIONS			
NO	DESCRIPTION	DATE	APPROVED



CLAYPOWER C O M P A N Y									
APPROVED	DATE	TITLE				PART NO.			
		CP-81025				PRX 1U			
CHECKED	DATE	SCALE : MM(INCHES)		DRAWING NO.		REV.			
		1:1		PRX 1U		A0			
DESIGNED	DATE	TOLERANCES:		MODEL NO.		SHEET			
2008	03/06'08	.XX = ±.10 .XXX = ±.010		昱辰		1of1			
第三角法 (Projection)		FINISH:			MATERIAL:				
		採購	生產	品質					

REVISIONS			
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REF.ID	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	LENGTH
P1	1	+3.3V	ORANGE	18	LTI/H756-20S+ LTI/H756-4S	500+50mm -25mm
		+3.3V Sense	ORANGE	22		
	2	+3.3V	ORANGE	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
	5	COM	BLACK	18		
	6	+5V	RED	18		
	7	COM	BLACK	18		
	8	PWR OK	GRAY	22		
	9	+5VSB	PURPLE	18		
	10	+12V	YELLOW	18		
	11	+12V	YELLOW	18		
	12	+3.3V	ORANGE	18		
	13	+3.3V	ORANGE	18		
	14	-12V	BLUE	18		
	15	COM	BLACK	18		
	16	PS-ON	GREEN	22		
	17	COM	BLACK	18		
	18	COM	BLACK	18		
	19	COM	BLACK	18		
	20	Reserved(-5V in 1A0)	NC			
	21	+5V	RED	18		
	22	+5V	RED	18		
	23	+5V	RED	18		
24	COM	BLACK	18			
P2	1	+12V	YELLOW	18	WST/P4-A10202 or equivalent	500+50mm -25mm
P3	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P4	1	+12V	YELLOW	18	WST/P4-A10202 or equivalent	150±20mm
P6	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P7	1	+12V	YELLOW	22	YYY/H6681-004 or equivalent	150±20mm
P7	2	COM	BLACK	22		
	3	COM	BLACK	22		
	4	+5V	RED	22		

PA	1	COM	BLACK	18	YYY/H6657#M or equivalent	500+50mm -25mm
	2	COM	BLACK	18		
	3	+12V	YELLOW	18		
	4	+12V	YELLOW	18		
PB	1	+3.3V	ORANGE	18	TKP/H127M2 or equivalent	500+50mm -25mm
	2	GND	BLACK	18		
	3	+5V	RED	18		
	4	GND	BLACK	18		
	5	+12V	YELLOW	18		
PC	1	GND	BLACK	18	YYY/H6657#M or equivalent	500+50mm -25mm
	2	GND	BLACK	18		
	3	GND	BLACK	18		
	4	GND	BLACK	18		
	5	+12V	YELLOW	18		
	6	+12V	YELLOW	18		
	7	+12V	YELLOW	18		
	8	+12V	YELLOW	18		



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		1:1	PRX線材圖	A0
DESIGNED	DATE	TOLERANCES:	MODEL NO.	SHEET
LOJ	03/06/08	XX = ±.10 XXX = ±.010		1of1

第三角法 (Projection)	FINISH:	MATERIAL:			
	採購	生産		品管	