SWITCHING POWER SUPPLY SPECIFICATION

CP-2023

CLAYPOWER COMPANY

REV. 00

TEL 626.303.8885 FAX 626.301.0588 11911 Clark St. Suite C Arcadia, CA 91006 www.claypowercompany.com

1.Input Characteristics

1.1 Input Voltage Range ---------- +24Vdc

1.2 Input Dc Current (Max) ---------- 15.0A Max. Full Load.

2.Output Characteristics

2.1 Static Output Characteristics.

Output Voltage	Load Range Min.	Load Range Max.		Regulation Min.	Regulation Max.	Ripple Max mV P-P	Ripple & Noise Max. mV P-P
1. +3.3 V	0.3 A	15.0 A		- 5 %	+ 5 %	50 mV	100 mV
2. +5.0 V	2.5 A	25.0 A		- 5 %	+ 5 %	50 mV	100 mV
3. +12.0 V	0.5 A	9.0 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	0.75 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 Exeeced 125W.

5. The Total Output Power Shall Not Exceed 230W..

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 Temperature.

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

7.1 UL/CUL ---------- UL 60950-1

7.2 TUV ---------- EN 60950-1

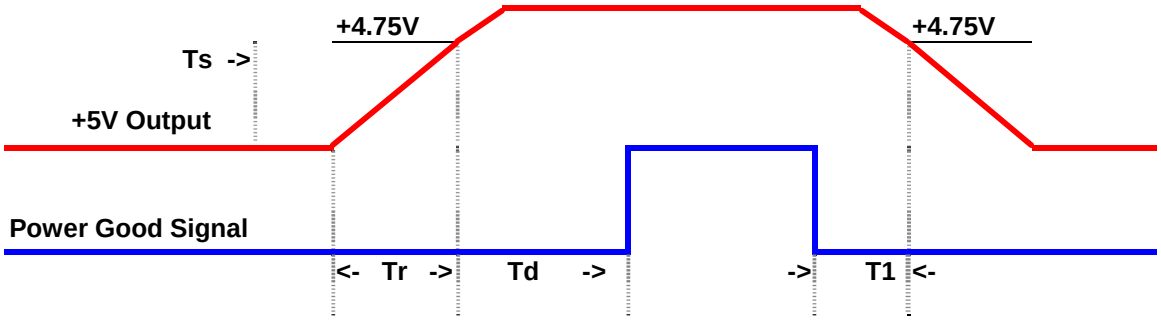
8. Conducted EMI: Internal Filter Can Meet.

8.1 FCC Requirement --- Part15, SUB-Part J, Computing Devices " Class A " Limits.

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

8.3 CISPR Requirement --- Class " A " Requirements Of CLSPR 22.

9.Power-Good Signal

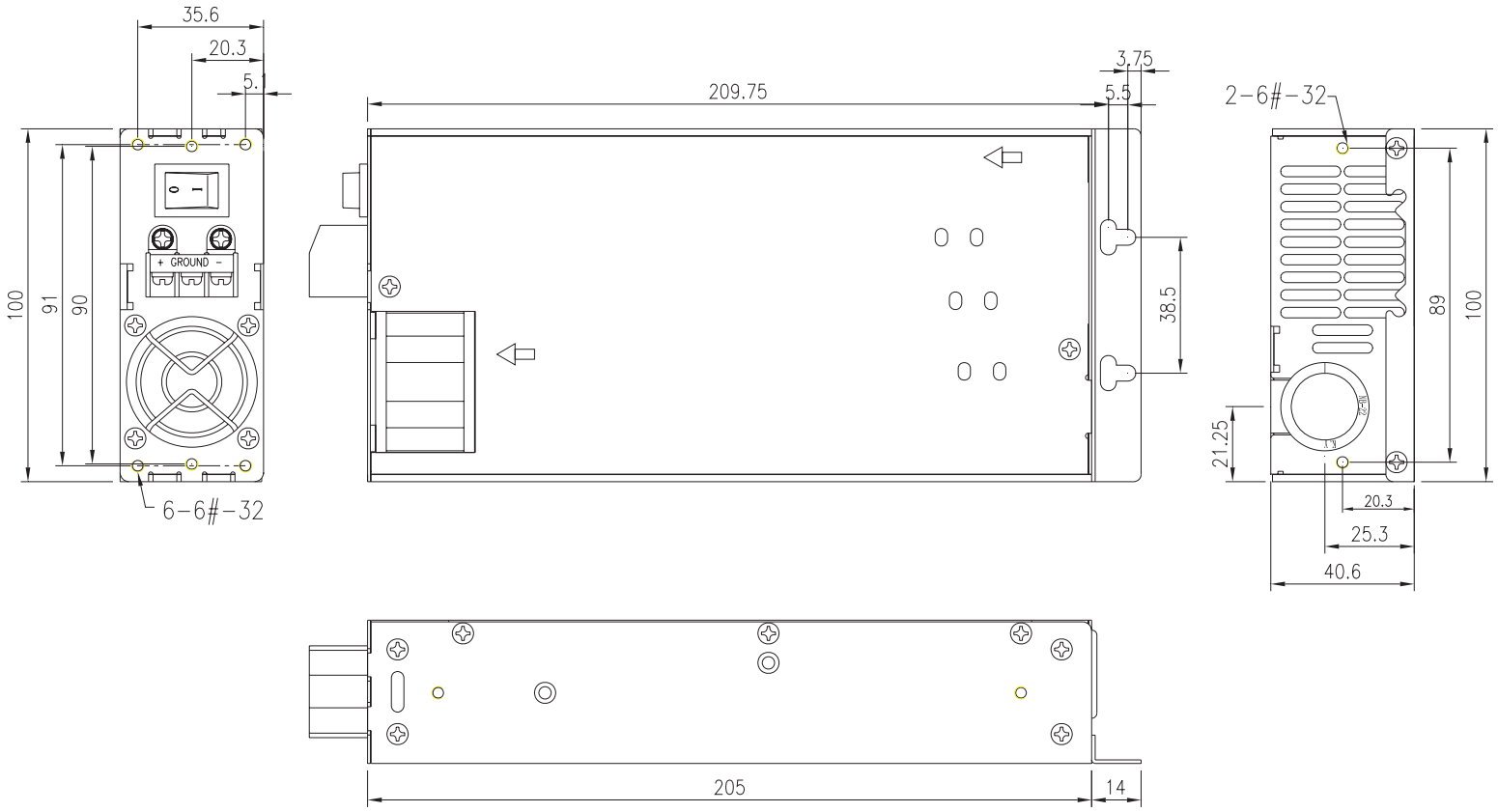


Note: Tr ≤ 100 ms, T1 ≥ 1 ms, Td = 100 - 500 ms.

10.Dimension

10.1 W x H x D ---------- 100.0 x 40.6 x 205.2 (mm)

REVISIONS			
NO	DESCRIPTION	DATE	APPROVED



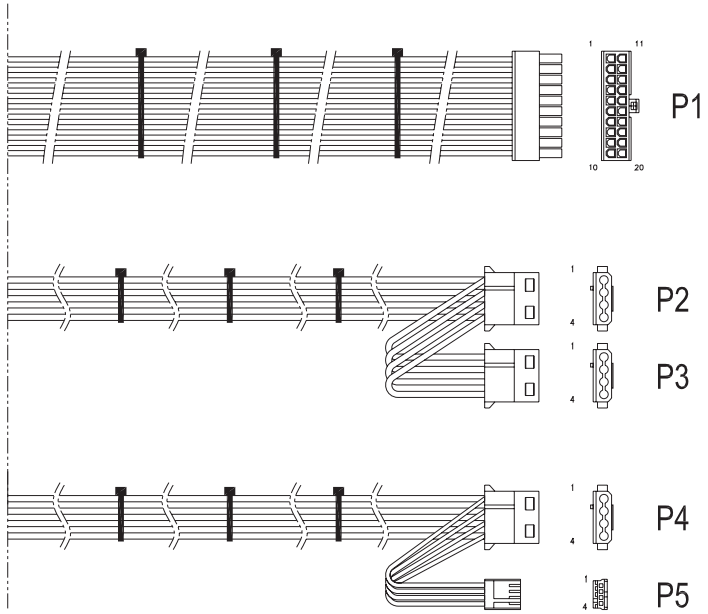
第三角法 (Projection)	FINISH:		MATERIAL:		
	採購		生產		品管

CLAYPOWER COMPANY

APPROVED	DATE	TITLE: CP-20023	PART NO. PSD230D-A	
CHECKED	DATE	SCALE : MM(INCHES) 1:1	DRAWING NO. PSD230D-A	REV. A0
DESIGNED LOIS	DATE 10/22'08	TOLERANCES: .XX = ±.10 .XXX = ±.010	MODEL NO.	SHEET 1of1

REVISIONS			
NO	DESCRIPTION	DATE	APPROVED

REF.ID	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	LENGTH
P1	1	+3.3V	BROWN	18	JMT/JP2416-20 or equivalent	540±20mm
		+3.3V Sense	BROWN	22		
	2	+3.3V	BROWN	18		
	3	COM	BLACK	18		
		COM Sense	BLACK	22		
	4	+5V	RED	18		
	5	COM	BLACK	18		
	6	+5V	RED	18		
	7	COM	BLACK	18		
	8	PWR OK	ORANGE	20		
	9	+5VSB	PURPLE	20		
	10	+12V	YELLOW	18		
	11	+3.3V	BROWN	18		
	12	-12V	BLUE	20		
	13	COM	BLACK	18		
	14	PS-ON	GREEN	20		
	15	COM	BLACK	18		
	16	COM	BLACK	18		
	17	COM	BLACK	18		
	18	-5V	WHITE	20		
	19	+5V	RED	18		
	20	+5V	RED	18		
P2 / P4	1	+12V	YELLOW	18	JMT/JP1120-4 or equivalent	P2=530±20mm P3=150±20mm P4=530±20mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P5	1	+12V	YELLOW	22	JMT/JP11635-4 or equivalent	150±20mm
	2	COM	BLACK	22		
	3	COM	BLACK	22		
	4	+5V	RED	22		



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CHECKED	DATE	SCALE : MM(INCHES) 1:1	DRAWING NO. PSD230D-A	REV. A0
DESIGNED 2038	DATE 10/22'08	TOLERANCES: .XX = ±.10 .XXX = ±.010	MODEL NO.	SHEET 1of1