

SWITCHING

SWITCHING POWER SUPPLY SPECIFICATION

CP-08040

CLAYPOWER
C O M P A N Y

REV.00

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1.Input Characteristics:

- 1.1 Input Voltage Range -----90 To 264Vac Full Range, With Active PFC,PF=90%
- 1.2 Input Frequency Range -----47Hz To 63Hz.
- 1.3 Input Ac Current (Max) -----8A Max. @115Vac, 5A Max. @230Vac 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 3.5mA 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	0.2 A	20.0 A	- 5 %	+ 5 %	50 mV	100 mV
2.	+5.0 V	2.5 A	42.0 A	- 5 %	+ 5 %	50 mV	100 mV
3.	+12.0 V	0.5 A	14.0 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	1.0 A	- 5 %	+ 5 %	100 mV	100 mV
7.	+24.0 V	0.1 A	4.0 A	- 5 %	+ 5 %	240 mV	240 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 210W.
- The Total Output Power Shall Not Exceed 400W.

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 ----- 16mS Max. 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.

2.3.1 Initial Delay Time ----- 35A Max. At Nominal Line Full Load.

2.3.2 Rise Time ---- 100 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 ----- 20mS Max. 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 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.
+24.0V Output Set At 25.6Vdc At +/-1.2Vdc.

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.

5. ELECTROMAGNETIC COMPATIBILITY

5.1 Electromagnetic Interference (EMI) :

- a.FCC Part 15,subject j, class B.
- b.EN55022 (CISPR 22), class B.
- c.VCCI Class “ 2 “.

- 5.2 Electrostatic Discharge (ESD) / 8KV :
Comply with IEC 801-2 (1984).
- 5.3 Radio-Frequency Electromagnetic Field (RS) :
Comply with IEC 801-3 (1984).
- 5.4 Harmonics Current :

- Comply with EN61000-3-2.
- 5.5 Fast Transient Burst (EFT) / 2KV :
Comply with IEC 801-4 (1988).

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:

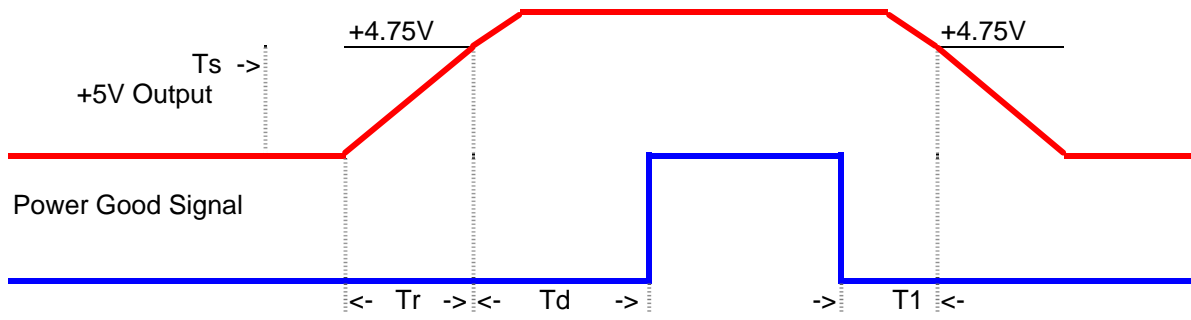
- 7.1 Operation Temperature ----- Air Temperature 0 °C To 50 °C.
- 7.2 Operation Relative Humidity ----- 20% To 90%.
- 7.3 Storage Temperature ----- Air Temperature -20 °C To 60 °C.
- 7.4 Storage Relative Humidity ----- 5% To 95%.
- 7.5 Altitude ----- Operate Properly At Any Altitude Between
0 To 100,000 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 ----- 50 KHrs Minimum At Full Load For
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.Dimension

11.1 W x H x D ----- 150.0 x 86.0 x 140.0 (mm)

