



SWITCHING

SWITCHING POWER SUPPLY SPECIFICATION

CP-56030

CLAYPOWER
C O M P A N Y

REV.00

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www.claypowercompany.com

1.1 Input Voltage Range --- 90~264Vac, Full Range With Active Power Factor 90% Min

1.2 Input Frequency Range --- 47Hz To 63Hz.

1.3 Input Ac Current (Max) --- 6.0A Max. Full Load.

**1.4 Inrush Current --- At 132Vac / 264Vac, Full Load Condition,
No Damage Occur. Input Fuse Shall Not Blow.**

1.5 Efficiency --- 63% 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 | 0.3 A | 18.0 A | - 5 % | + 5 % | 50 mV | 100 mV |
| 2. | +5.0 V | 2.0 A | 30.0 A | - 5 % | + 5 % | 50 mV | 100 mV |
| 3. | +12.0 V | 0.5 A | 16.0 A | - 5 % | + 5 % | 100 mV | 150 mV |
| 4. | -5.0 V | 0.0 A | 0.3 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 | 2.0 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 Current From +3.3V And +5V Rails Shall Not Exceed 32A.**
- 5. Provided With Fan Rating 20 CFM Air Flow Min.**
- 6. The Total Output Power Shall Not Exceed 300W.**

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 +120% - 170% 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 To 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 CISPR Requirement --- Class “ B “ Requirements Of CISPR 22.

5.3 VCCI Class “ 2 “.

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

6.1 UL/CUL ----- UL60950

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.

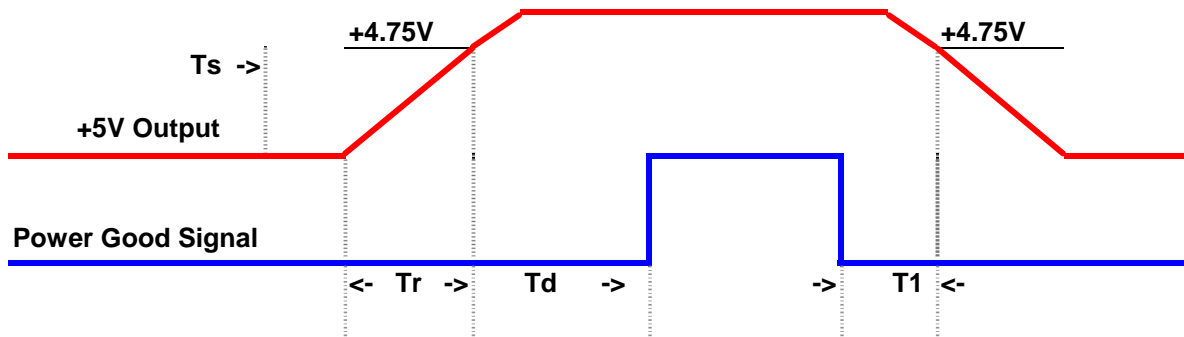
7.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 Minutes Per Cycle; 30 Minutes For Each Axis (X,Y,Z).

8. Burn-In

8.1 Burn-In ----- At 45 °C, Max. Load, 4 Hours.

9. Mean Time Between Failure ----- 100 KHrs Minimum At 75% Load For 25 °C Ambient Temperature.

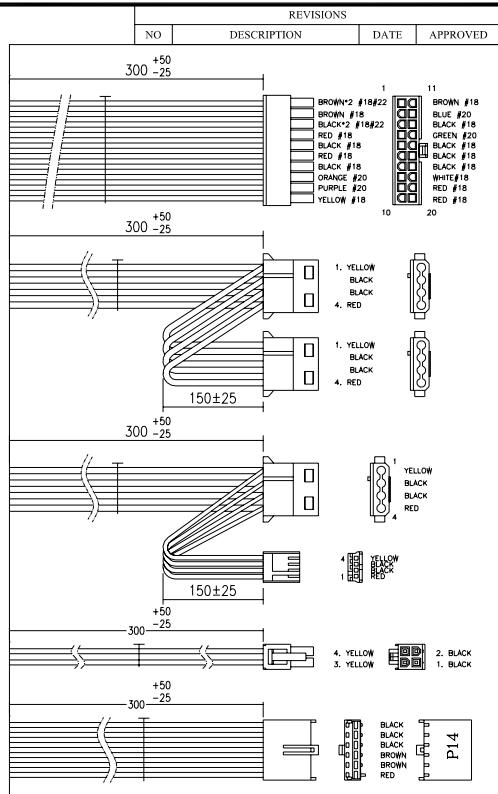
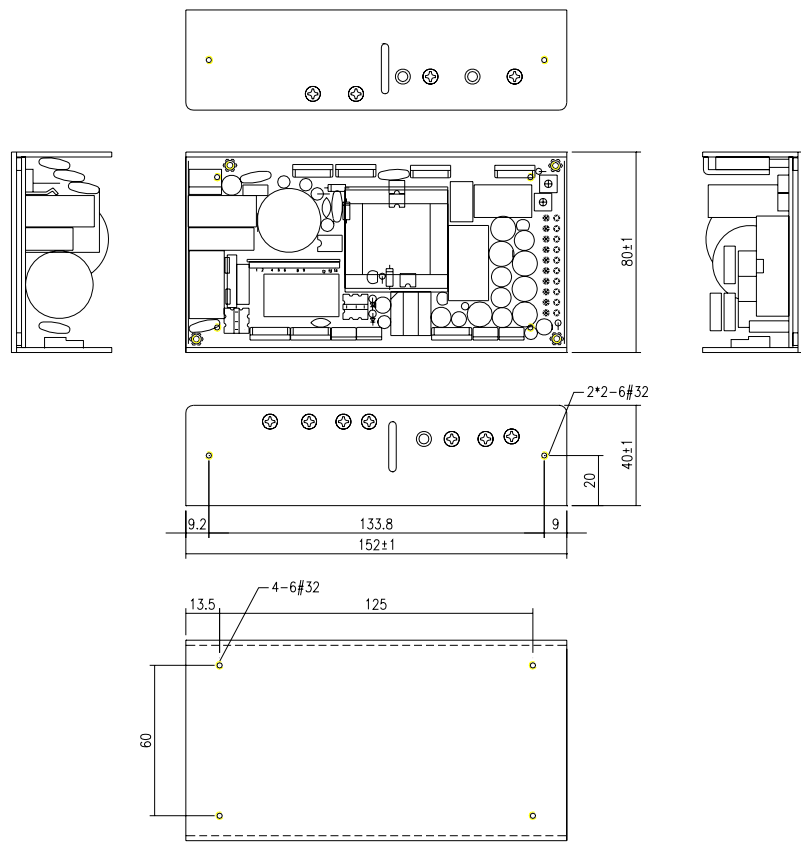
10. Power-Good Signal:



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 ----- 80.0 x 40.0 x 152.0(mm)



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| | | | | |
|--------------|------|--------------------|---------------------------|--------|
| APPROVED | DATE | TITLE | PART NO. | REV. |
| | | | | |
| CHECKED | DATE | DRAWING NO. | MODEL NO. | SHEET |
| | | | | |
| DESIGNED | DATE | SCALE : MM(INCHES) | TOLERANCES: | SHEET |
| <i>Yelco</i> | | 1:2 | .XX = ±.10 XXX = ±.010 | 1 of 1 |

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| 採購 | 生產 | 品質 |
|----|----|----|