



S
INGLE

SWITCHING POWER SUPPLY SPECIFICATION

CP-65020-08

CLAYPOWER
C O M P A N Y

REV.00

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www.claypowercompany.com

1. Input Characteristics:

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) --- 4.0A 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. +16.5 V | 0.0 A | 12.0 A | - 5 % | + 5 % | 100 mV | 150 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. Provided with fan rating 20 CFM air flow min.
5. The total output power shall not exceed 200W.

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. 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 +16.5V output set at 18.5Vdc – 21.45Vdc.

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 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 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.

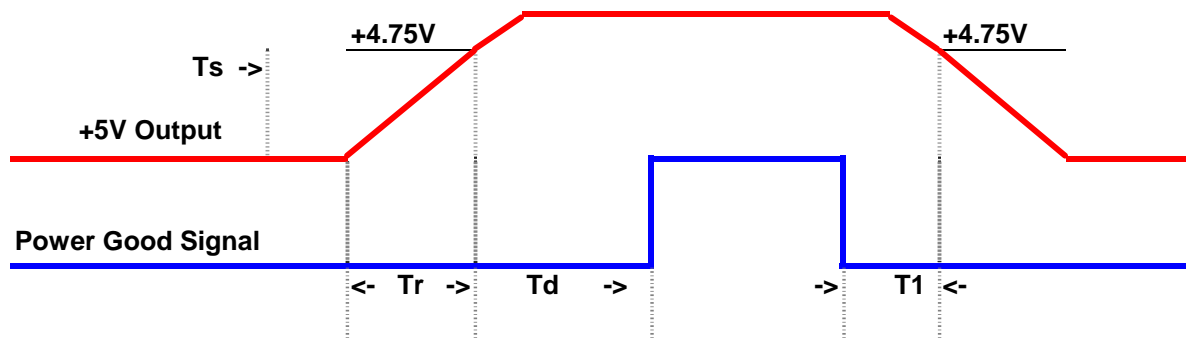
7.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 minutes per cycle; 30 minutes for each axis (X,Y,Z).

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:

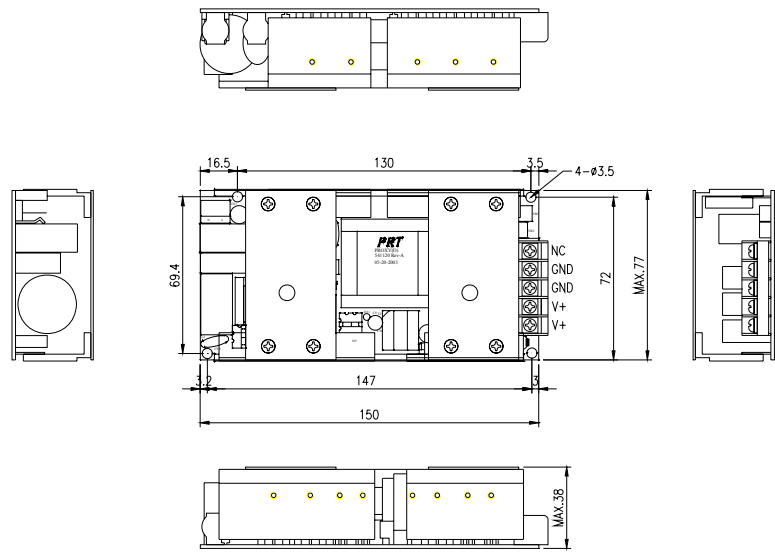


Note: $T_r \leq 100 \text{ ms}$, $T_1 \geq 1 \text{ ms}$, $T_d = 100 - 500 \text{ ms}$.

11. Dimension

11.1 W x H x D ----- (O)76.0 x 38.0 x 150.0 (mm)
(U)80.0 x 40.0 x 152.0 (mm)

| REVISIONS | | | |
|-----------|-------------|------|----------|
| NO | DESCRIPTION | DATE | APPROVED |



CLAY POWER COMPANY

| | | | | |
|----------|------|-------------------|------------------------------------|------------------|
| APPROVED | DATE | TITLE | CP-65020-08 | |
| CHECKED | DATE | DRAWING NO. | PART NO. | REV. A |
| DESIGNED | DATE | SCALE: MM(INCHES) | TOLERANCES: XX +0.10 XXX -0.010 | MODEL NO. Single |
| SHEET | | 1 of 1 | | |

| | | | | | | | | | |
|----|----|----|----------|------|-------------------|------------------------------------|------------------|-------|--------|
| 採購 | 生產 | 品質 | DESIGNED | DATE | SCALE: MM(INCHES) | TOLERANCES: XX +0.10 XXX -0.010 | MODEL NO. Single | SHEET | 1 of 1 |
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