



# SWITCHING

SWITCHING POWER SUPPLY SPECIFICATION

# CP-43040

**CLAYPOWER**  
C O M P A N Y

REV.00

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

[www.claypowercompany.com](http://www.claypowercompany.com)

## 1. Input Characteristics

1.1 Input Voltage Range ----- -32Vdc To -72Vdc,

1.2 Input Dc Current ( Max ) ----- 19.0A Max. Full Load.

## 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	0.1 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	- 5 %	+ 5 %	150 mV	200 mV
5.	-12.0 V	0.0 A	3.0 A	- 5 %	+ 5 %	150 mV	200 mV
6.	SB +5.0 V	0.0 A	1.0 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 210W.
5. 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 ----- 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

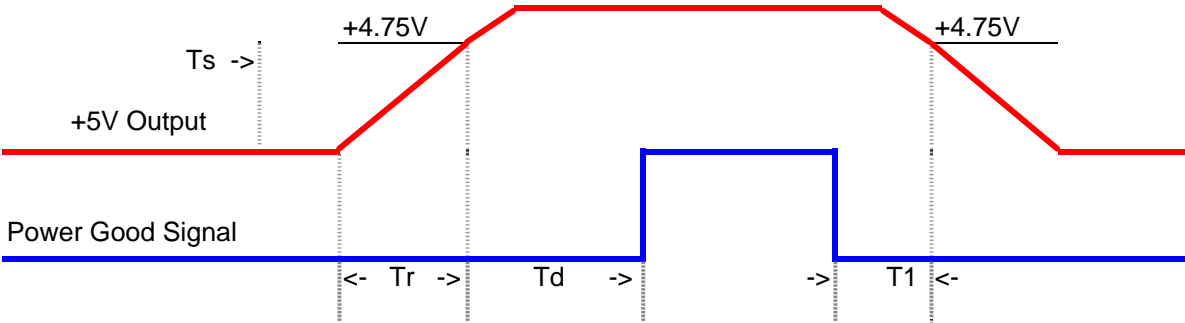
- 4.1 Operation Temperature ----- Air Temperature 0 °C To 50 °C.
- 4.2 Operation Relative Humidity ----- 20% To 90%.
- 4.3 Storage Temperature ----- Air Temperature -20 °C To 60 °C.
- 4.4 Storage Relative Humidity ----- 5% To 95%.
- 4.5 Altitude ----- Operate Properly At Any Altitude Between 0 To 100,000 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.Power-Good Signal



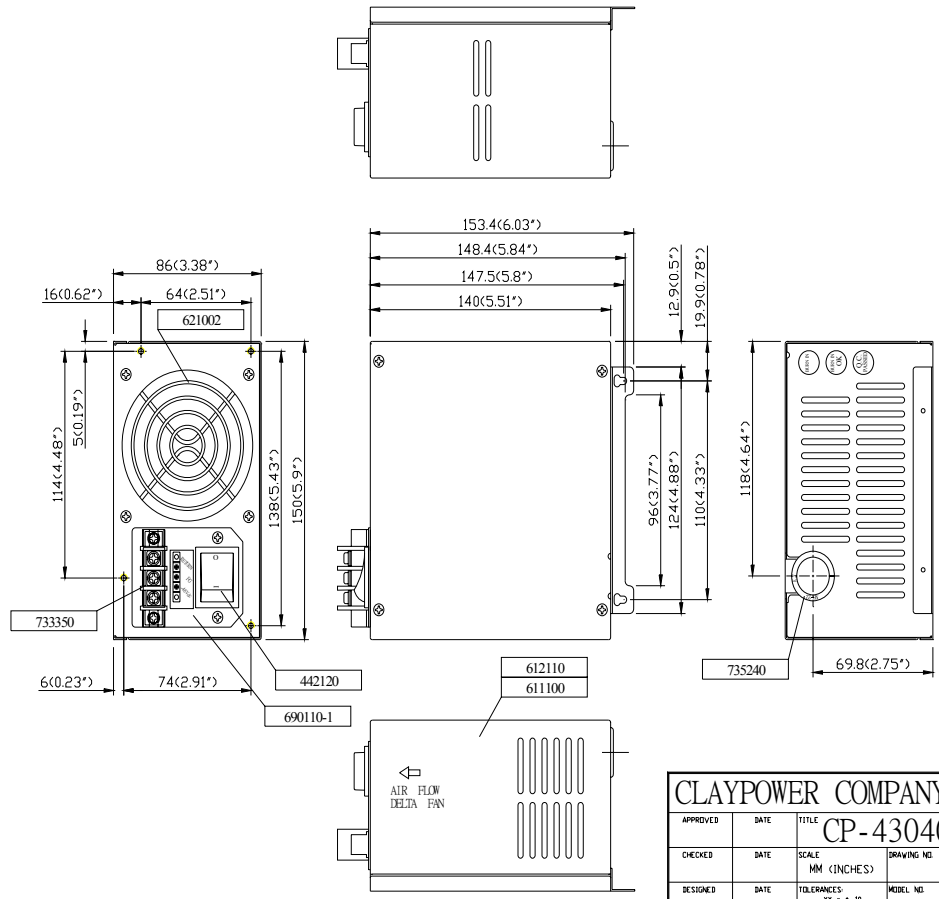
Note:  $T_r \leq 100 \text{ ms}$ ,  $T_1 \geq 1 \text{ ms}$ ,  $T_d = 100 - 500 \text{ ms}$ .

# 8.Dimension

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

Note: See The Mechanical Drawing.

REVISIONS				
ECN	LTR	DESCRIPTION	DATE	APPROVED



CLAYPOWER COMPANY				
APPROVED	DATE	TITLE	PART NO.	
		CP-43040		
CHECKED	DATE	SCALE	DRAWING NO.	REV.
		MM (INCHES)		
DESIGNED	DATE	TOLEANCES	MODEL NO.	SCALE
		ZK = ± .10 XXX = ± .010		