

SWITCHING POWER SUPPLY SPECIFICATION

CP-02035-Q



REV. 00

1. Input Characteristics:

- 1.1 Input Voltage Range --- 100~240Vac, full range with active power factor 90% min
- 1.2 Input Frequency Range --- 47Hz to 63Hz.
- 1.3 Input Ac Current (Max) --- 8.0A max, full load.
- 1.4 Inrush Current --- At 132Vac / 264Vac, full load condition, no damage occur, input fuse shall not blow.
- 1.5 Efficiency ---70% min, at nominal line input full load.
- 1.6 Input Leakage Current --- Leakage current from line to ground will be less 10mA rms, measurement will be made at 240Vac/60Hz.

2. Output Characteristics:

2.1 Static Output Characteristics.

Output		Load Range		Regulation		Ripple Max	Ripple & Noise
	Voltage	Min.	Max.	Min.	Max.	mV P-P	Max. mV P-P
1.	+3.3 V	0.5 A	20.0 A	- 5 %	+ 5 %	50 mV	100 mV
2.	+5.0 V	0.3 A	30.0 A	- 5 %	+ 5 %	50 mV	100 mV
3.	+12.0 V	1.0 A	25.0 A	- 5 %	+ 5 %	100 mV	150 mV
4.	-5.0 V	0.0 A	0.5 A	- 10 %	+ 10 %	150 mV	200 mV
5.	-12.0 V	0.0 A	0.5 A	- 10 %	+ 10 %	150 mV	200 mV
6.	SB +5.0 V	0.0 A	3.0 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 150W.
- 5. The total output power shall not exceed 350W.
- 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 +115% 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 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 VDE Requirement --- Class "B" (General Operating Permit) Requirements Of VFG 234/1991.
 - 5.3 CISPR Requirement --- Class "B" Requirements Of CLSPR 22.
 - 5.4 Harmonic Requirement --- IEC61000-3-2 & IEC61000-3-3 Class " D ".
- 6. Product Safety: This Power Supply Is Designed Can Meet The Following Spec.
 - 6.1 UL/CUL ----- UL60950-1
 - 6.2 TUV ----- EN 60950-1

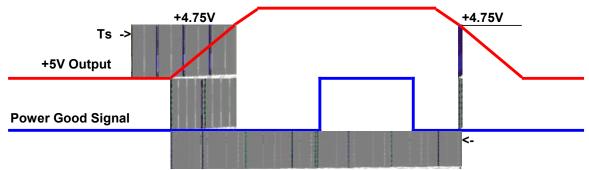
7. Environment:

- 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

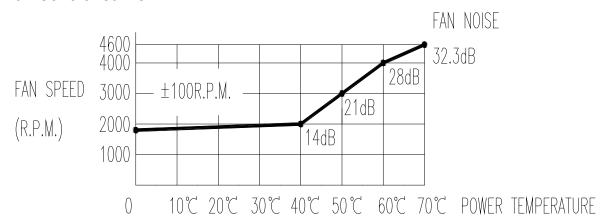
- 8.1 Burn-In ----- At 45 °C, max. load, 4 hours.
- 9. Mean Time Between Failure ----- 60 KHrs minimum at 75% load for 25 °C ambient temperature.

10. Power-Good Signal:



Note: $Tr \le 100 \text{ ms}$, $T1 \ge 1 \text{ ms}$, Td = 100 - 500 ms.

11. Fan control curve:



12. Dimension

11.1 W x H x D ----- 100.0 x 70.0 x 200.0 (mm)

