

SWITCHING POWER SUPPLY SPECIFICATION

# CP-67020-12



**REV. 00** 

- 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	Load Range	Regulat	ion	Ripple Max	Ripple & Noise
	Voltage	Min. Max.	Min.	Max.	mV P-P	Max. mV P-P
I	1. +48.0 V	0.0 A 4.1 A	- 5 %	+ 5 %	200 mV	250 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. 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 +48V output set at 53Vdc 60Vdc.
- 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 A " Limits.
  - 5.2 VDE Requirement --- Class " A " ( General Operating Permit ) Requirements Of VFG 234/1991.
  - 5.3 CISPR Requirement --- Class "A" Requirements Of CLSPR 22.
  - 5.4 Harmonic Requirement --- IEC10000-3-2 & IEC10000-3-3 Class "D".
- 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:

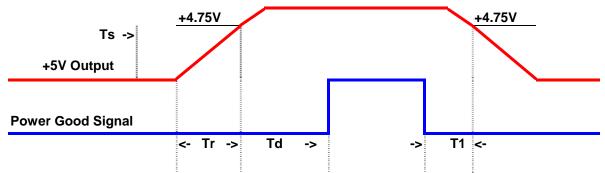
- 7.1 Operation Temperature ----- Air temperature 0 °C to 50 °C.
- 7.2 Operation Relative Humidity ----- 20% to 90%.

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

## 11. Dimension

11.1 W x H x D ------ 80.0 x 40.0 x 177.0( mm )

