

# **TC-1U50PD8**

## **Switching Power Supply**

**( 1 U 500W EPS12V 8 0 P L U S )**

# **SPECIFICATION**

Revision: 1.0

727. Phillips Drive City of Industry. CA 91748. USA  
[http:// www.Xeal.com.tw](http://www.Xeal.com.tw)  
TEL: 626-303-8885 FAX: 626-301-0588

## 1. Specification

1.1. AC Input Voltage Range: 100VAC ~ 240VAC,  $\pm 10\%$ , 47 to 63 Hz.

1.2. INPUT CURRENT: 8.0 A ( RMS ) FOR 115VAC / 4.0 A ( RMS ) FOR 230VAC.

1.3. Input Power Factor: The minimum power factor at full load shall be  
0.98/115V 60 Hz and 0.95/230V 50 Hz.

1.4. Inrush current: 35A MAX. FOR 115 VAC / 55A MAX. FOR 230 VAC.

1.5. DC Output: 520W maximum

	Output-1	Output-2	Output-3	Output-4	Output-5
Output Voltage	+5V DC	+12V DC	-12V DC	+3.3V DC	+5VSB
Output Current(Max)	25A	40A	0.8A	25A	3.5A
Output Current(Min.)	0.5A	2A	0A	0.5A	0.1A
Ripple/Noise Max. (P-P)	60mV	120mV	120mV	60mV	60mV
Line Regulation:	$\pm 1\%$				
Load Regulation:	$\pm 5\%$				

Note:

1. Noise Test – Noise bandwidth is from DC to 20 MHz.
2. Ripple frequencies greater than 1MHz shall be attenuated by the measurement System.
3. Add 0.1uF/10uF capacitor at output connector terminals for ripple and noise measurements.
4. The combined total power from 5V & 3.3V shall not exceed 170W.

### 1.6. PS-ON

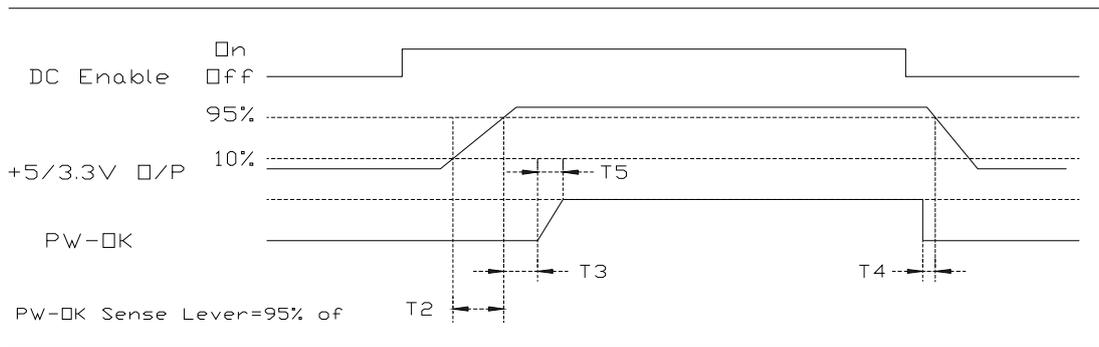
Remote On/Off Control:

When PS-ON is pulled to TTL Low, the DC output is to be enabled.

When PS-OFF is pulled to TTL high, the DC output is to be disabled.

### 1.7. PW-OK

PW-OK is power good signal and should be asserted high by the power supply to indicate that +5VDC and +3.3VDC output are above the under voltage thresholds of the power supply TTL. compatible signal out with 100ms to 500ms.



## Timing of PS-ON, PW-OK, and Germane Voltage Rails

Although there is no requirement to meet specific timing parameters, The following signal timings are recommended:

$$2\text{ms} \leq T2 \leq 200\text{ms}$$

$$100\text{ms} \leq T3 \leq 500\text{ms}$$

$$T4 > 1\text{ms}$$

$$T5 \leq 10\text{ms}$$

1.8. Efficiency: TYPICAL >80% AT 115VAC , FULL LOAD.

1.9. Hold-Up Time:16ms at maximum load & normal input voltage.

## 2. PROTECTIONS

### 2.1 OVER-VOLTAGE PROTECTION

OUTPUT	Min	Max
+3.3V	3.7V	4.1V
+5V	5.7V	6.5V
+12V	13.1V	14.5V

### 2.2 SHORT CIRCUIT PROTECTION

A short circuit placed between the DC Return and the output shall cause No damage and the power supply shall shutdown.

### 2.3 OVER POWER PROTECTION

The power supply shall shut down when output power exceeds 110% to 160% of full load and require a power on cycle be performed by the operate

## 3. ENVIRONMENT TEMPERATURE

3.1 Operation Temperature: 0°C to 45°C

3.2 Cooling: ONE 40mm DC FANS.

3.3 Storage Temperature:-20°C to 70°C

3.4 Humidity: 5 to 90 % non-condensing.

4. Mean Time Between Failure(MTBF)

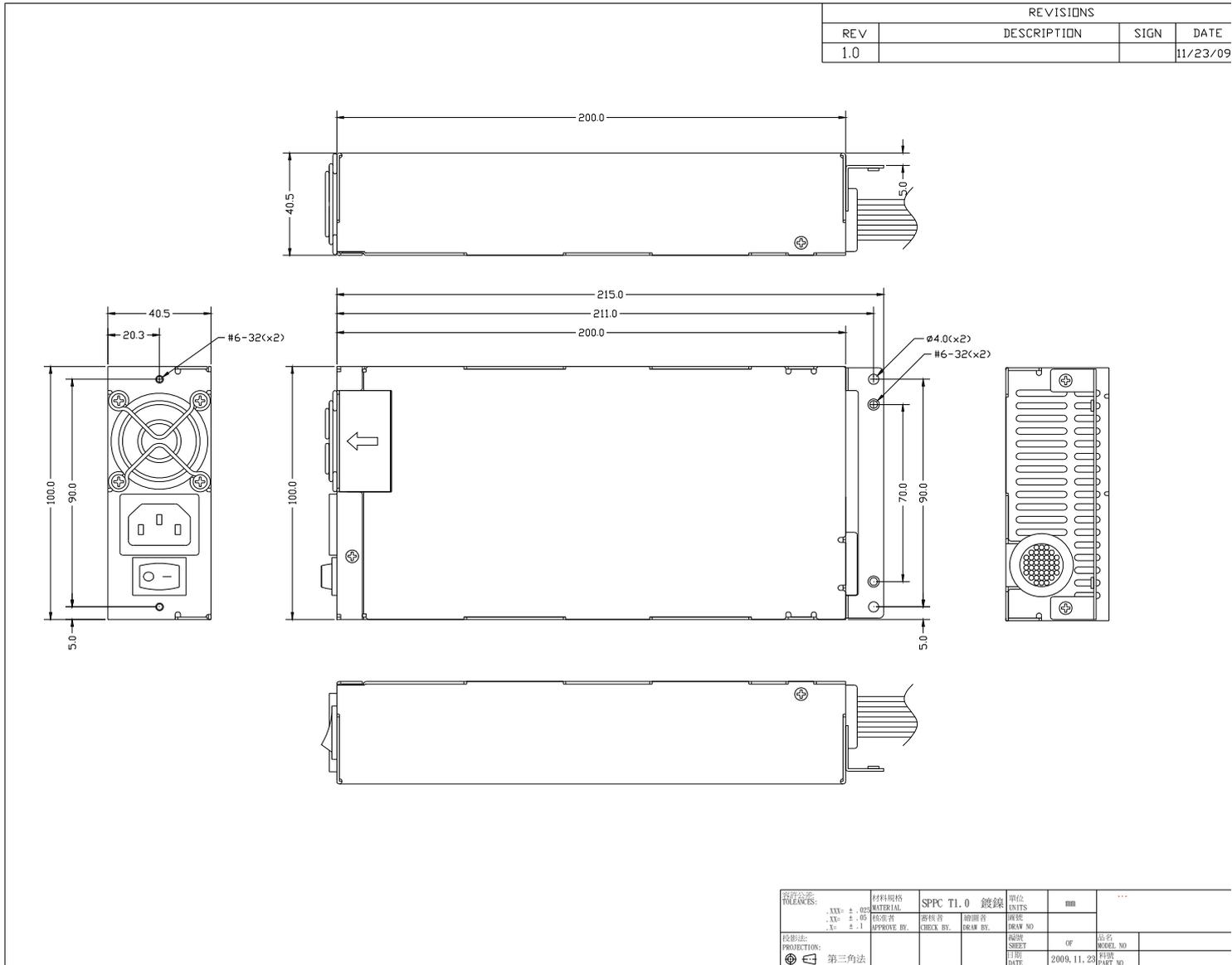
Using MIL - HDBK -217F the calculated MTBF=100,000 hours at 25°C 75% loading.

5. SAFETY: TO MEET UL, CUL, TUV.

6. EMI NOISE FILTER: FCC CLASS A, CISPR22 CLASS A.

7. DIMENSION

L 200 x W 100 x H 40.5 mm



8. PINOUTS OF CONNECTORS

- ATX or EPS (20+4)Pin x 1 ,
- M8P +12V Power Connector x 1 ,
- M4P +12V Power Connector x 1 ,
- H. D. D. x 6 ,
- Floppy x 1.
- SATA x 2