

SPECIFICATION

TC-1U25P80

Main Feature:
Active PFC Circuit
Full Range Input

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1.0 Input Characteristics:

1.1 Input Voltage range:90ac to 264 Vac full range

MINIMUM	NOMINAL	MAXIMUM	UNITS
90	100-240	264	Vrms

1.2 Input Frequency

47Hz ~ 63Hz

1.3 Maximum input ac current:

6.3A max.@115Vac ;3A max.@230Vac

1.4 Inrush current: No damage shall occur to the power supply and the fuse shall not open or exceed its maximum rating:

100A max @ 230Vac 25 °C cold start.

1.5 Power Efficiency

80% (min.) at 20%,50%,100% loading line input.

1.6 Harmonic distortion production:comply with IEC 1000-3-2 with full load conditions.

1.7 PFC value range :0.9min.@120V/50HZ;0.8min.@240V/50HZ

1.8 LEAKAGE CURRENT

3.5mA (max.)

2.0 OUTPUT:

Voltage	+5V	+12V1	+12V2	+3.3V	-12V	+5Vsb
Max load	16A	16A	16A	16A	0.8A	2.5A
Min load	0.5A	1A	0.5A	1A	0.0A	0.0A
Peak load	---	---	---	---	---	---
Regulation	±4%	±4%	±4%	±4%	±10%	±5%
Ripple	50mV	120mV	120mV	50mV	120mV	50mV
Ripple & Noise	50mV	120mV	120mV	50mV	120mV	50mV

Note:

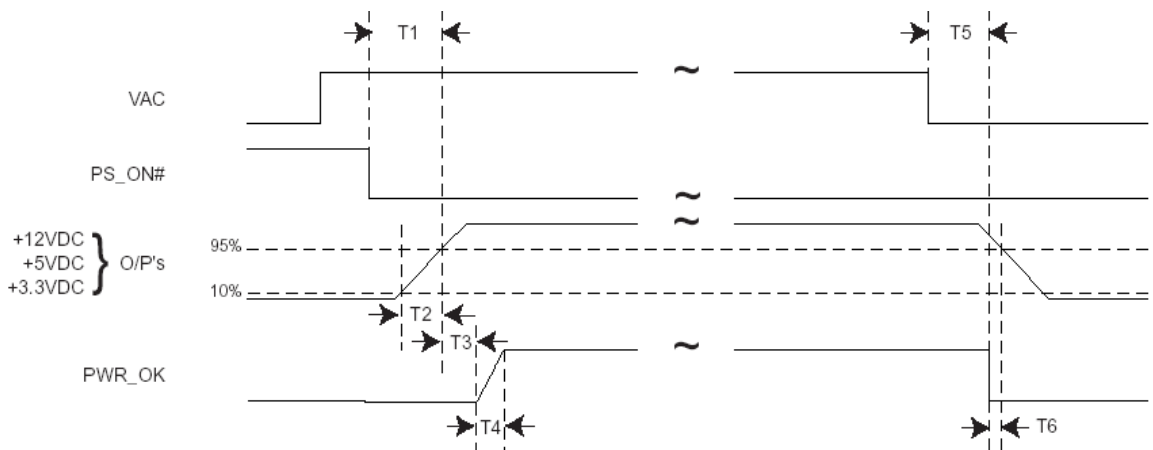
- The continuous total output power is 250W max.
- The combined power of +5V and +3.3V is 100W max.
- The combined power of +12V1 and +12V2 is 240W max. It is 20A max.
- Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.
- Noise test—Noise Bandwidth is from DC to 20MHz.

2.1 REMOTE ON/OFF

TTL High/PS-OFF; TTL Low/PS-ON

$V_{IL}=0.8V_{max}$, $I_{IL}=-1.6mA_{max}$ @ $V_{in}=0.4V$

$V_{IH}=2.0V_{min}$ @ $I_{in}=-200uA$, $V_{IH}=5.25V_{max}$ @ open ckt



Timing Schematic Diagram

2.2 Turn-On Delay Time

100~2000 ms max.(at full load and nominal Input).

2.3 Power On Time (T1)

The power-on time is defined as the time from when PS_ON# is pulled low to when the +12 VDC, +5 VDC, and +3.3 VDC outputs are within their regulation ranges. The power-on time shall be less than 500 ms ($T1 < 500$ ms).

2.4 Rise Time (T2)

20ms max at full load.

2.5 Power Good Delay Time (T3)

Test when main output voltages reach their regulation ranges to PG rise up:
100ms to 500 ms.

2.6 Power Good Rise Time (T4)

The Power Good Rise Time shall be less than 10 ms (T4< 500 ms).

2.7 Hold-Up Time (T5)

16 msec (minimum) at 80% of full load at 115Vac input.

2.8 Power Fail Delay Time (T6)

Power-down warning >1 msec.

2.9 Transient Over shoot

Summarizes 20% load change output transient step sizes * ① for each output when at typical load & with following capacitor load on each output terminal ,
The transient load slew rate is = 0.5 A/μs. Output voltages should not over +/- 10% of nominal value.

+5V	+3.3V	+12V1	+12V2	+12V3	+12V4	-12V	+5Vsb
1000uF	1000uF	2200uF	2200uF	2200uF	2200uF	350uF	350uF

3.0 Protections:

If the power supply protection latch off all main output. (when OCP, OVP or short protection is working) reset by cycling remote on/off control or AC power .
+5Vsb is Recovery.

3.1 Over Power Protection

Protection at 110%~150% full load

3.2 Over Voltage Protection

+3.3V output 4.10 ±0.40V

+5.0V output 6.25 ±0.75V

+12.0V output 14.6 ±1.00V

3.3 Short Circuit Protection

The power supply shall shut down and latch off for shorting +5V,+12V,-12V,+3.3V rail to ground. Shorting +5Vsb to ground will cause power unit to latch down and automatically recover when the fault condition is removed.

3.4 Over Current Protection

Not over 240VA for +3.3V and +5V output voltage ,
+12V1 & +12V2 between 20A and 32A

4.0 Environment:

4.1 OPERATING TEMP. 0 °C to +50 °C

4.2 STORAGE TEMP. -20 °C to +60 °C

4.3 OPERATING HUMIDITY 10% to 90%,non-condensing at 40 °C

4.4 STORAGE HUMIDITY 5% to 95%, non-condensing at 50 °C

4.5 OPERATING ALTITUDE 0 to 10,000 feet

4.6 STORAGE ALTITUDE 0 to 50,000 feet

4.7 Electrostatic Discharge(ESD)

The power supply shall withstand the following ESD conditions at any point on the power supply

- a) ±8kV with no abnormal operation
- b) ±8kV with no damage to power supply
- c) Transients as defined in IEC 801-2, Level 4

5.0 HI-POT:(Input/Output isolation)

5.1 PRIMARY TO SECONDARY

Primary to secondary 4242Vdc for 1 minute

5.2 INSULATION RESISTANCE

Primary to earth ground 500Vdc , 50M ohms Min.

6.0 EMI

6.1 MEET FCC : Class B

6.2 MEET CISPR 22 : Class B

6.3 MEET VCCI : Class B

7.0 SAFETY

7.1 UL/CUL (UL 60950)

7.2 TUV EN60950

7.3 CB (IEC 60950)

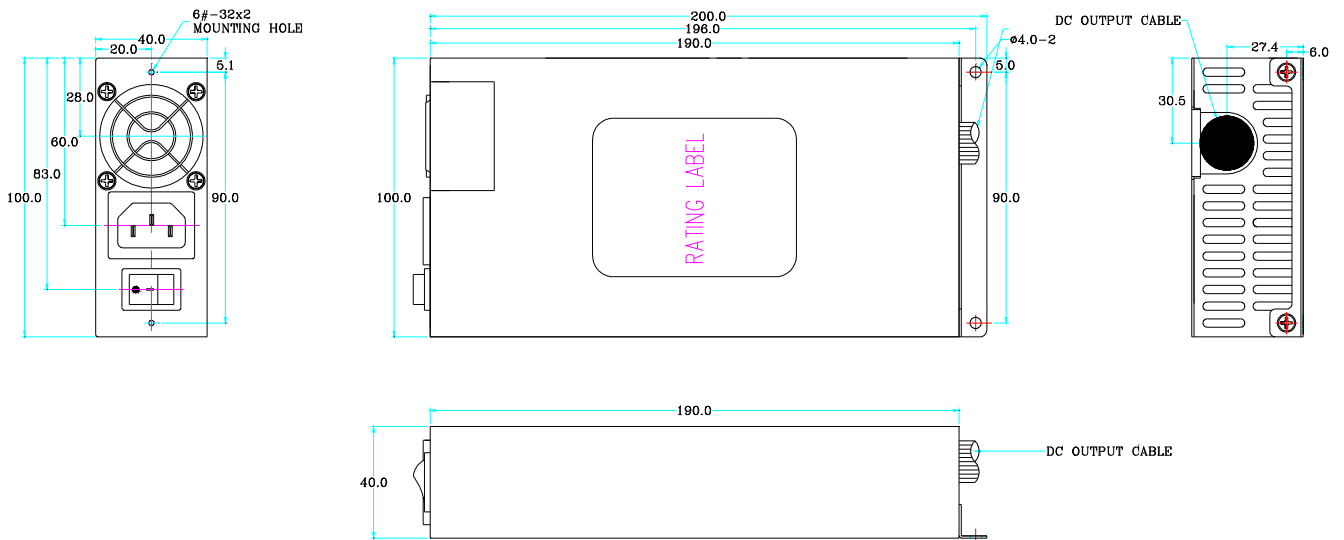
7.4 CE

8.0 MTBFat 25°C(demonstrated)

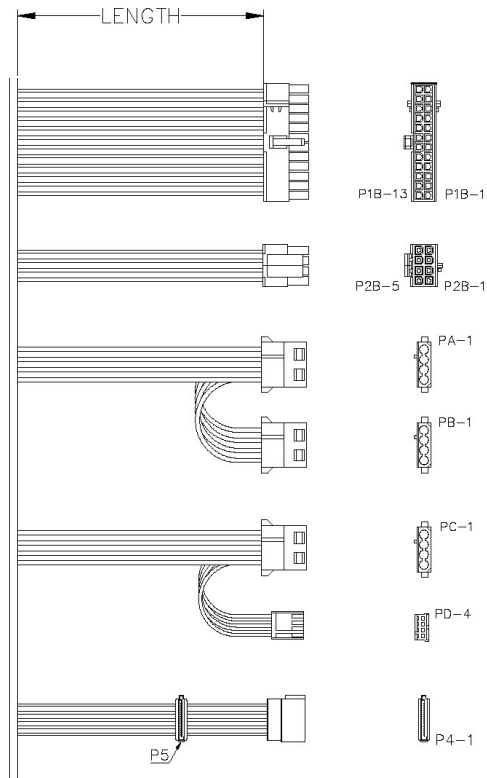
100kHrs Minimum at full load . *3 year Warranty

9.0 Mechanical Specifications:

DIMENSION : 190mm (L) *100mm (W) * 40mm (H)



10.0 Output cable drawing :



CONN	PIN	WIRE COLOR	OUTPUT	WIRE AWG	LENGTH
P1B	1	ORANGE	+3.3V	18	500±25
	2	ORANGE	+3.3V	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
	5	BLACK	GND	18	
	6	RED	+5V	18	
	7	BLACK	GND	18	
	8	GRAY	PG	22	
	9	PURPLE	+5VSB	18	
	10	YELLOW	+12V	18	
	11	YELLOW	+12V	18	
	12	ORANGE	+3.3V	18	
	13	ORANGE	+3.3Vs	22	
	14	ORANGE	+3.3V	18	
	15	BLUE	-12V	18	
	16	BLACK	GND	18	
	17	GREEN	PS-ON	22	
	18	BLACK	GND	18	
	19	BLACK	GND	18	
	20	NC	NC	NC	
	21	RED	+5V	18	
	22	RED	+5V	18	
	23	RED	+5V	18	
	24	BLACK	GND	18	
P2B	1	BLACK	GND	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	BLACK	GND	18	
	5	YELLOW/BLUE	+12V2	18	
	6	YELLOW/BLUE	+12V2	18	
	7	YELLOW/BLUE	+12V2	18	
	8	YELLOW/BLUE	+12V2	18	
PA,PC	1	YELLOW	+12V	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
PB:	1	YELLOW	+12V	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
P5	1	ORANGE	+3.3V	18	
	2	BLACK	GND	18	
	3	RED	+5V	18	
	4	BLACK	GND	18	
	5	YELLOW	+12V	18	
PD:	1	RED	+5V	20	
	2	BLACK	GND	20	
	3	BLACK	GND	20	
	4	YELLOW	+12V	20	
P4:	1	YELLOW	+3.3V	18	
	2	ORANGE	+3.3V	18	
	3	RED	+5V	18	
	4	BLACK	GND	18	
	5	YELLOW	+12V	18	

NOTE:

P1B	HOUSING:	WST P4/P20-I42002K7	OR EQU
	TERMINAL:	WST I42002PS-2	
P2B	HOUSING:	WH P4-I42002K3A	OR EQU
	TERMINAL:	WH P4-I42002K4A	
PA,PB:	HOUSING:	AMP 1-480424-0	OR EQU
PC:	TERMINAL:	AMP 60619-4	
	HOUSING:	AMP 171822-4	OR EQU
	TERMINAL:	AMP 170262-2	
P4	HOUSING:	WST P5-I12701 插拔式	OR EQU
	TERMINAL:	WST 112701PS-00	
P5	HOUSING:	WST P5-I12702	OR EQU
	TERMINAL:	WST 112702PL	