



# SURE STAR COMPUTER CO., LTD

**SURE STAR**

## MODUL : TC-400PATX ( ATX 400W )

### 1. Specification

1.1 AC Input Voltage: 95 to 132 or 185 to 264 Auto selectable 50 to 60 Hz..

1.2 DC Output: 400W maximum

	Output-1	Output-2	Output-3	Output-4	Output-5
Voltage:	+5V DC	+12V DC	-5V DC	-12V DC	+3.3V DC
Maximum Load:	40A	15A	0.5A	0.8A	20A
Minimum Load:	8A	4A	0.1A	0.1A	0.3A
*** Note: Output-1 + Output-5 total 200W maximum					
Ripple:	50mv	120mv	50mv	120mv	40mv
Ripple/Noise:	100mv	150mv	100mv	240mv	40mv
Line Regulation:	±1 %	±1 %	±1 %	±1 %	±1 %
Output Regulation:	±5 %	±6 %	±10 %	±10 %	±5 %
Cross Regulation:	±5 %	±6 %	±10 %	±10 %	±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 and +3.3V shall not exceed 200W.
5. +5V SB DC Output 1.5A. (Peak 2A)

#### 1.3 PS-ON

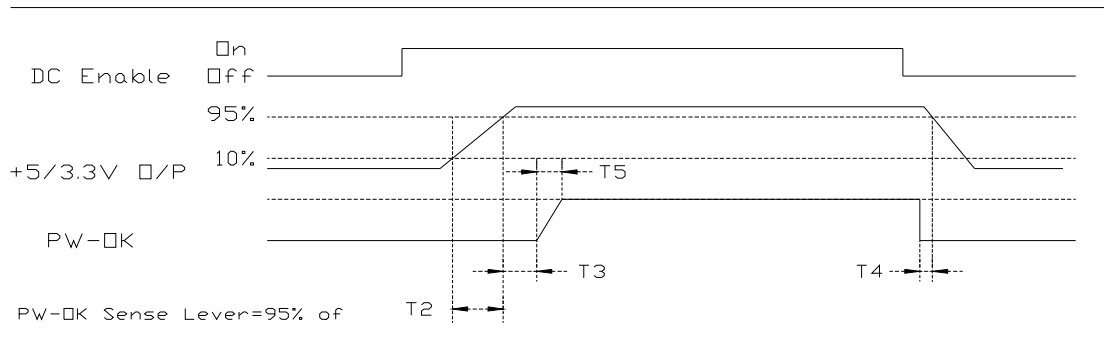
##### Remote On/Off Control:

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.

#### 1.4 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:

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

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

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

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

1.5 Efficiency: minimum  $\geq 67\%$  at full load.(Nominal Line)

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

## 2.PROTECTIONS

### 2.1 OVER-VOLTAGE PROTECTION

Standard on +5.0V output, set at  $6.25\text{VDC} \pm 0.75\text{VDC}$ .

### 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 130% to 160%  
of full load and require a power on cycle be performed by the operate

### 2.4 NO LOAD OPERATION

No parts shall be damaged on the power supply.

## 3. ENVIRONMENT TEMPERATURE

3.1 Operation Temperature:  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$

3.2 Cooling: By forced air

3.3 Storage Temperature:  $-20^{\circ}\text{C}$  to  $70^{\circ}\text{C}$

3.4 Humidity: 5 to 90% non-condensing.

#### 4. RELIABILITY

##### 4.1 MTBF OF POWER SUPPLY ELECTRONIS

100,000 hours at full load and 25°C ambient temperature

##### 4.2 LIFE EXPECTANCY OF FAN

40,000 hours at 40°C

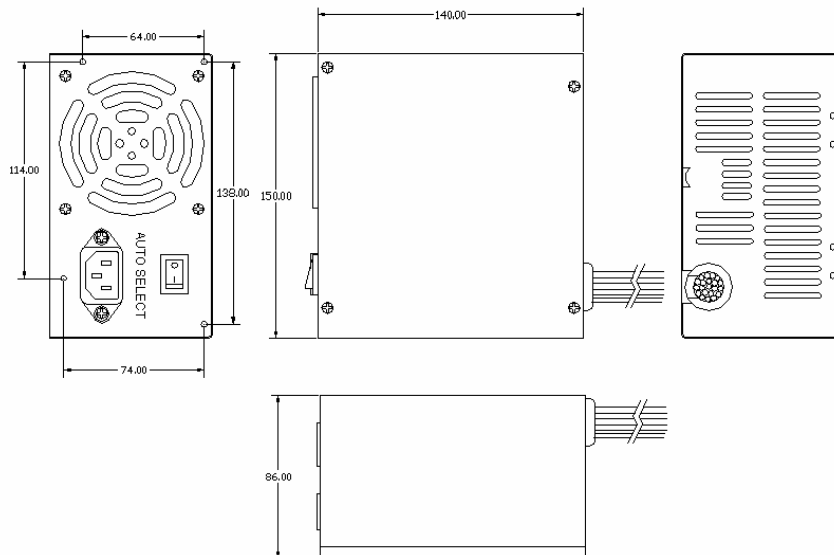
#### 5. AGENCY APPROVALS

UL 1950 QQGQ2

UL 1950 QQGQ8

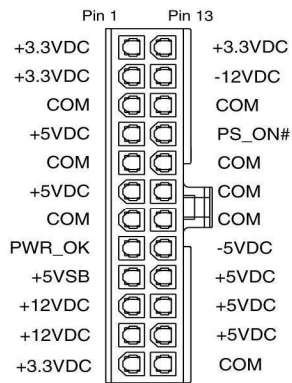
#### 6. DIMENSION

L 140 x W 150 x H 86 mm



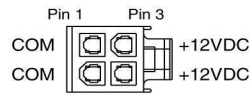
## 7. PINOUTS OF CONNECTORS

5 x 5.25", 1 x 3.25", 2 x SATA, 1 x ATX (20+4) Pin ( for motherboard),  
1 x +12V Power Connector

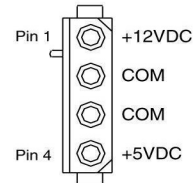


Main Power Connector

+12V = <b>yellow</b>	+5VSB = <b>brown</b>	-5V = <b>white</b>
+5V = <b>red</b>	PS_ON# = <b>gary</b>	-12V = <b>blue</b>
+3.3V = <b>purple</b>	PWR_OK = <b>orange</b>	COM = <b>black</b>



+12V Power Connector



Peripheral Power Connector



Floppy Drive Power Connector