# SURE STAR COMPUTER CO., LTD

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## MODEL:TC-1U40 (400W for 1U Single)

### 1. Specification

1.1 AC Input Voltage: 90 to 132 or 180 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 | 20A | 0.3A | 0.8A | 20A |
| Minimum Load: | 3A | 2A | 0.1A | 0.1A | 0.3A |
| Ripple: | 50mv | 120mv | 50mv | 120mv | 50mv |
| Ripple/Noise: | 100mv | 150mv | 100mv | 240mv | 50mv |
| Line Regulation: | ±1% | ±1% | ±1% | ±1% | ±1% |
| Output Regulation: | ±5% | ±5% | ±10% | ±10% | ±5% |
| Cross Regulation: | ±5% | ±5% | ±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 & 3.3V shall not exceed 200W. The combined total power from 5V and 12V & 3.3V shall not exceed 378W
5. +5V SB DC Output 2A.

1.3 **PS-ON**

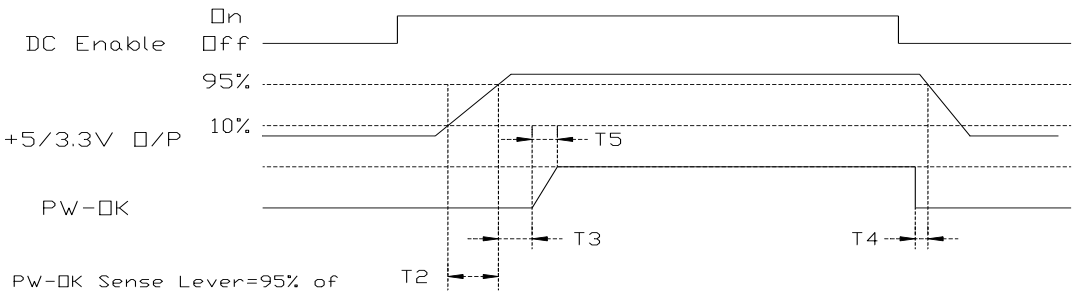
**Remote On/Off Control:**

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:
2ms≦T2≦200ms
100ms≦T3≦500ms
T4＞1ms
T5≦10ms

1.5 Efficiency: ≧ 70% at full load.(Normal 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 6.25VDC ± 075VDC.

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℃ to 40℃

3.2 Cooling: By forced air

3.3 Storage Temperature:-20℃ to 70℃

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℃ ambient temperature

4.2 LIFE EXPECTANCY OF FAN

40,000 hours at 40℃

## 5. AGENCY APPROVALS

UL 1950 QQGQ2

UL 1950 QQGQ8

TUV Rheinland ( EN60950-1+A12; IEC:60950 )

## 6. EMI

FCC part 15, Subpart B, Class A

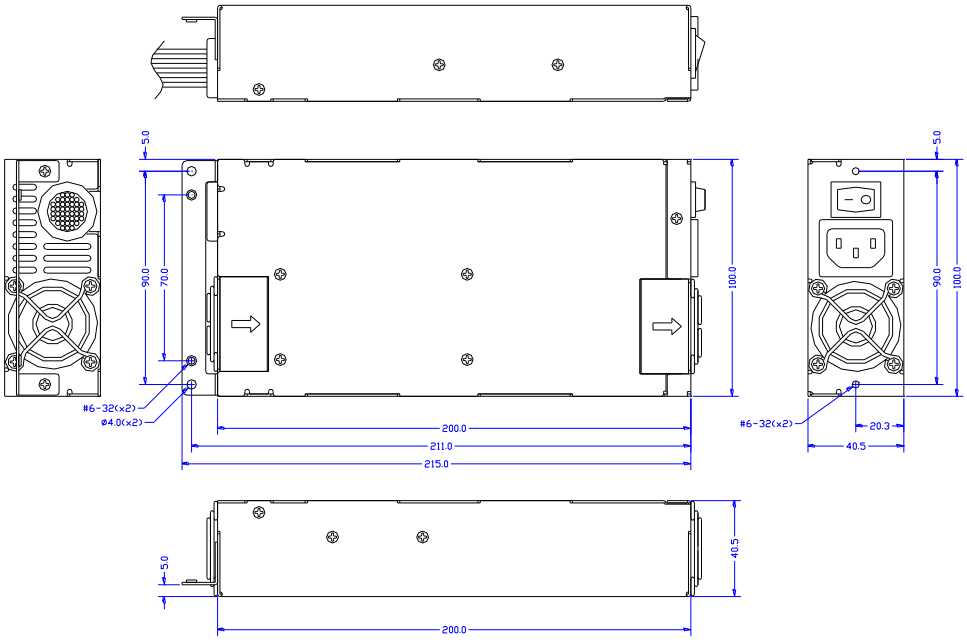
EN55022 CISPR22 Class A,

EN61000-3-3;1995

EN61000-4-2, -3, -4, -5, -6, -11

## 7. DIMENSION

L 200 x W 100 x H 41.5 mm



## 8. PINOUTS OF CONNECTORS

ATX or EPS (20+4)Pin x 1 ,

M8P +12V Power Connector x 1 ,

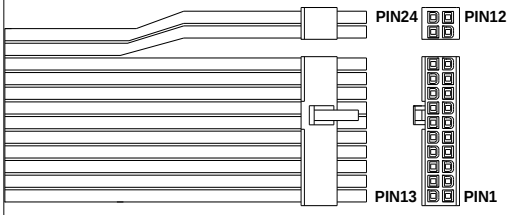
M4P +12V Power Connector x 1 ,

H.D.D. x 6 ,

Floppy x 2.

| REVISIONS | | | |
|---|---|---|---|
| REV | DESCRIPTION | SIGN | DATE |
| 03 | | | / / |

L=560mm±15mm

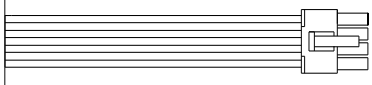



P24

**24Pins(EPS12V)**
**Connector HOUSING: MOLEX 39-01-2240 or equivalent**
**TERMINAL: MOLEX 39-00-0039 or equivalent**

| Housing | Pin No. | WIRE COLOR | LENGTH | Pin No. | WIRE COLOR | LENGTH |
|---|---|---|---|---|---|---|
| P24 | 1 | PURPLE(+3.3V) | 560mm/18AWG | 13 | PURPLE(+3.3V)<br>PURPLE(+3.3Vs) | 560mm/18AWG<br>560mm/22AWG |
| | 2 | PURPLE(+3.3V) | 560mm/18AWG | 14 | BLUE(-12V) | 560mm/18AWG |
| | 3 | BLACK(GND) | 560mm/18AWG | 15 | BLACK(GND) | 560mm/18AWG |
| | 4 | RED(+5V) | 560mm/18AWG | 16 | GRAY(PS-ON) | 560mm/20AWG |
| | 5 | BLACK(GND) | 560mm/18AWG | 17 | BLACK(GND) | 560mm/18AWG |
| | 6 | RED(+5V) | 560mm/18AWG | 18 | BLACK(GND) | 560mm/18AWG |
| | 7 | BLACK(GND) | 560mm/18AWG | 19 | BLACK(GND) | 560mm/18AWG |
| | 8 | ORANGE(PG) | 560mm/18AWG | 20 | WHITE(-5V) | 560mm/18AWG |
| | 9 | BROWN(+5VSB) | 560mm/18AWG | 21 | RED(+5V) | 560mm/18AWG |
| | 10 | YELLOW(+12V) | 560mm/18AWG | 22 | RED(+5V) | 560mm/18AWG |
| | 11 | YELLOW(+12V) | 560mm/18AWG | 23 | RED(+5V) | 560mm/18AWG |
| | 12 | PURPLE(+3.3V) | 560mm/18AWG | 24 | BLACK(GND) | 560mm/18AWG |

L=580mm±15mm

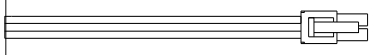



P8

**8Pins(EPS12V)**
**Connector HOUSING: MOLEX 39-01-0280 or equivalent**
**TERMINAL: MOLEX 39-00-0060 or equivalent**

| Housing | Pin No. | WIRE COLOR | SIGNAL | WIRE TYPE | LENGTH |
|---|---|---|---|---|---|
| P8 | 1 | BLACK | COM | 18AWG | 580mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | BLACK | COM | 18AWG | |
| | 5 | YELLOW | +12V | 18AWG | |
| | 6 | YELLOW | +12V | 18AWG | |
| | 7 | YELLOW | +12V | 18AWG | |
| | 8 | YELLOW | +12V | 18AWG | |

L=580mm±15mm




P4

**4Pins(ATX12V,FOR P4)**
**Connector HOUSING: MOLEX 39-01-0280 or equivalent**
**TERMINAL: MOLEX 39-00-0060 or equivalent**

| Housing | Pin No. | WIRE COLOR | SIGNAL | WIRE TYPE | LENGTH |
|---|---|---|---|---|---|
| P4 | 1 | BLACK | COM | 18AWG | 580mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | YELLOW | +12V | 18AWG | |
| | 4 | YELLOW | +12V | 18AWG | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 容許公差 TOLERANCES: .XXX= .XX= .X= | 材料規格 MATERIAL | | | 單位 UNITS | mm | SURE STAR |
| | 核准者 APPROVE BY. | 審核者 CHECK BY. | 繪圖者 DRAW BY. | 圖號 DRAW NO | | |
| 投影法: PROJECTION: 第三角法 | | | Kevin | 編號 SHEET | OF | 品名 MODEL NO: TC-1U30.35 HARNESS |
| | | | | 日期 DATE | 2010,12,23 | 料號 PART NO |

| REVISIONS | | | |
|---|---|---|---|
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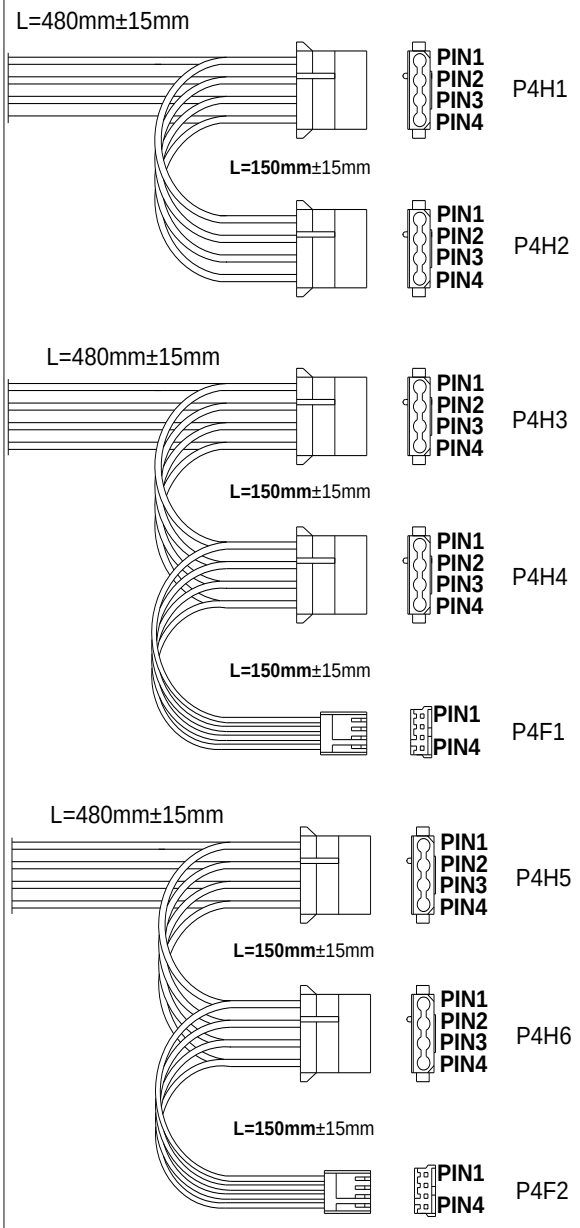


4Pins(HD/CD-ROM/RW):P4H1~P4H6
Connector HOUSING: AMP 480424-0 or equivalent
TERMINAL:AMP 60619-4 or equivalent
4Pins(FLOPPY DISK):P4F
Connector HOUSING: AMP 171822-4 or equivalent
TERMINAL: AMP 170262-2 or equivalent

| Housing | Pin No. | WIRE COLOR | SIGNAL | WIRE SIZE | LENGTH |
|---|---|---|---|---|---|
| P4H1 | 1 | YELLOW | +12V | 18AWG | 480mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4H2 | 1 | YELLOW | +12V | 18AWG | 150mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4H3 | 1 | YELLOW | +12V | 18AWG | 480mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4H4 | 1 | YELLOW | +12V | 18AWG | 150mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4F1 | 1 | YELLOW | +12V | 22AWG | 150mm ±15mm |
| | 2 | BLACK | COM | 22AWG | |
| | | BLACK | COM | 22AWG | |
| | 4 | RED | +5V | 22AWG | |
| P4H5 | 1 | YELLOW | +12V | 18AWG | 480mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4H6 | 1 | YELLOW | +12V | 18AWG | 150mm ±15mm |
| | 2 | BLACK | COM | 18AWG | |
| | 3 | BLACK | COM | 18AWG | |
| | 4 | RED | +5V | 18AWG | |
| P4F2 | 1 | YELLOW | +12V | 22AWG | 150mm ±15mm |
| | 2 | BLACK | COM | 22AWG | |
| | 3 | BLACK | COM | 22AWG | |
| | 4 | RED | +5V | 22AWG | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 容許公差 TOLERANCES: .XXX= .XX= .X= | 材料規格 MATERIAL | | | 單位 UNITS | mm | SURE STAR |
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| 投影法 PROJECTION: 第三角法 | | | Kevin | 編號 SHEET | OF | 品名 MODEL NO: TC-1U30.35 HARNESS |
| | | | | 日期 DATE | 2010,12,23 | 料號 PART NO |

**Note: Specification and wiring diagram subject to change without notice.**

2014/5/16