

# Synergy Global Inc

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## MODEL : PS2002 / TC-1U35 ( 350W)

### 1. Specification

1.1 AC Input Voltage: 90 to 132 or 180 to 264 Auto selectable 50 to 60 Hz.

1.2 DC Output: 350W 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:	35A	16A	0.5A	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 160W.  
. The combined total power from 5V and 12V & 3.3V shall not exceed 325W
5. +5V SB DC Output 2A.

### 1.3 PS-ON

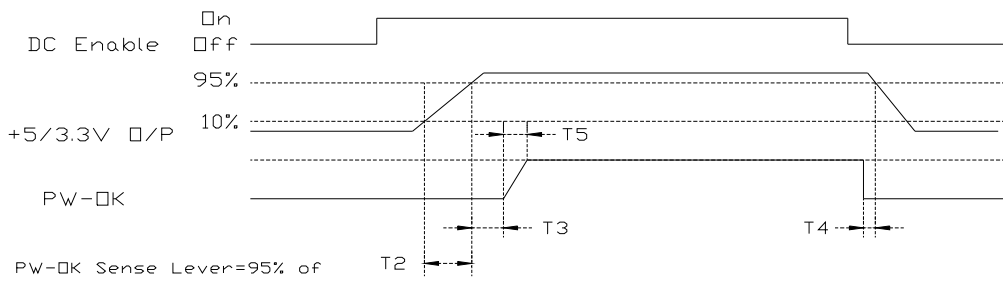
#### Remote On/Off Control:

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:

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

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

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

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

1.5 Efficiency:  $\geq 68\%$  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  $6.25\text{VDC} \pm 0.75\text{VDC}$ .

### 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

TUV Rheinland ( EN60950, IEC950 mod )

#### 6. EMI

FCC part 15, Subpart B, Class B

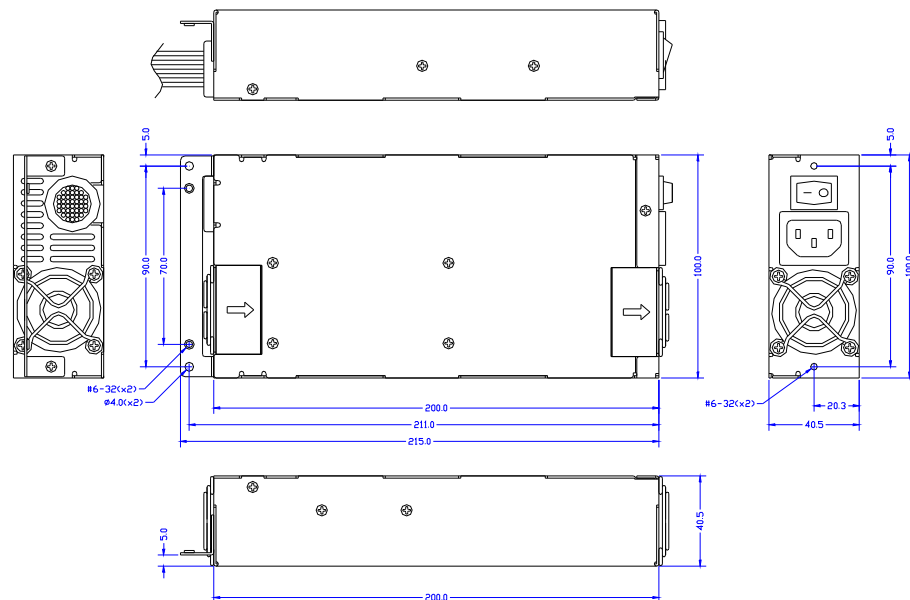
EN55022 CISPR22 Class B, CE Make

EN61000-3-3;1995

EN61000-4-2, -3, -4, -5, -6, -8, -11

#### 7. DIMENSION

L 200 x W 100 x H 41.5 mm



## 8. PINOUTS OF CONNECTORS

3 x 5.25", 1 x 3.25", 1 x ATX-24Pin ( for motherboard), 1 x AUX Power Connector  
 1 x +12V Power Connector

