



## ±24V DC Input Industrial PC ATX 2.01 Switching Mode Power Supply

| Series    | Model No. | Output Watts | Input Voltage | Input Voltage range | Polarity reverse protection |
|-----------|-----------|--------------|---------------|---------------------|-----------------------------|
| <b>24</b> | STC-24450 | 450 W        | ±24V DC       | ±18V ~ ±36V DC      | Protected (Max.60V DC)      |
|           | STC-24350 | 350 W        |               |                     |                             |
|           | STC-24300 | 300 W        |               |                     |                             |

### ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, **80x80x25 mm Fan x 1 pcs**
- ▶ Fan type (**300W, 350W**): DC type, 2 x Ball Bearing, brand SUNON, 3200 rpm, no Fan Control Card
- ▶ Fan type (**450W**): DC type, 2 x Ball Bearing, brand DELTA, 4000 rpm, with Fan Control Card
- ▶ Operating Temperature: 0°C~+50°C (**-20°C~+60°C optional**) Full Load
- ▶ Output Power: 100% @ 50°C, 70% @ 60°C, 50% @ 70°C
- ▶ Operating Humidity: 20%~85% RH. (Non condensing)
- ▶ Storage Temperature: -20°C~+80°C
- ▶ Storage Humidity: 10%~90% RH. (Non condensing)
- ▶ Operating Altitude: 10M Below Sea level to 3000M Above Sea level

### DC INPUT CHARACTERISTICS:

- ▶ Input connector type 30A/300V UL Approved Gold plated brass 1.2t/ 3-Pin Terminal
- ▶ Input Current 16.5A/ 32.5A(450W) 12.6A/ 25.5A(350W) 9A/21.5A(300W)  
@Full Load High Line & Low Line
- ▶ Inrush Current Less than 35A Cold start @25°C ambient

### DC OUTPUT CHARACTERISTICS:

| Output Voltage  | Regulation |      |       | Output Current |      |            |      |            |      | Ripple & Noise |
|---|------------|------|-------|----------------|------|------------|------|------------|------|----------------|
|   | Load       | Line | Cross | 450W           |      | 350W       |      | 300W       |      |                |
|   |            |      |       | Min.           | Max. | Min.       | Max. | Min.       | Max. |                |
| <b>+5V</b>  | ±5%        | ±1%  | ±5%   | 0A             | 40A  | 0A         | 40A  | 0A         | 30A  | 50mV           |
| <b>+12V</b>   |            |      |       | 0A             | 35A  | 0A         | 20A  | 0A         | 20A  | 120mV          |
| <b>+3.3V</b>  |            |      |       | 0A             | 30A  | 0A         | 21A  | 0A         | 21A  | 50mV           |
| <b>-5V</b>  |            |      |       | 0A             | 1A   | 0A         | 1A   | 0A         | 1A   | 50mV           |
| <b>-12V</b>   |            |      |       | 0A             | 1A   | 0A         | 1A   | 0A         | 1A   | 120mV          |
| <b>+5VSB</b>  | ±5%        |      |       | 0A             | 3A   | 0A         | 3A   | 0A         | 3A   | 50mV           |
| Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed |            |      |       | <b>200</b>     |      | <b>200</b> |      | <b>150</b> |      | <b>Watts</b>   |
| Maximum continuous total DC output power shall not exceed                   |            |      |       | <b>450</b>     |      | <b>350</b> |      | <b>300</b> |      |                |

### OVERALL PERFORMANCE:

- ▶ Efficiency: 70% typical @24V DC Full Load
- ▶ Hold up time:
- ▶ Rise time:
- ▶ Power Good Signal: TTL Compatible signal, on delay 100~500ms, off delay 1ms min.
- ▶ Short Circuit Protection (SCP): All output equipped with SCP (shutdown and latch off)
- ▶ Over Power Protection (OPP): Peak power protected to 130%±10% of continuous rated power (shutdown and latch off)

- ▶ Over Voltage Protection (OVP): +3.3V@4.5V, +5V@6V, +12V@15.6V

#### RELIABILITY:

- ▶ MTBF: >100,000 hours @max. Load, 24V DC & 25°C ambient
- ▶ Safety Standards: Meet IEC60950-1, EN60950-1
- ▶ Safety Approved:
- ▶ EMI Compatibility (EMC): EN55032:2015/AC:2016, CISPR32:2015, EN61000-3-2:2014, EN61000-3-3:2013, EN55024:2010 +A1:2015

#### ISOLATION:

- ▶ INPUT and OUTPUT are isolated by transformers and optical couplers
- ▶ Dielectric Withstand: INPUT to OUTPUT: 500V DC for 60 seconds
- ▶ Dielectric Withstand: INPUT to FRAME GROUND: 500V DC for 60 seconds
- ▶ Leakage Current: <0.005µA @24V DC

#### Output Device Connector Specific:

|                        |                                |
|------------------------|--------------------------------|
| ATX 24 Pin x 1         | Molex 29-01-2240 or equivalent |
| ATX 12V(P4) 4 Pin x 1  | Molex 39-01-2040 or equivalent |
| HDD, DVD 4 pin x 2     | Molex 8981-04P or equivalent   |
| FDD 4 pin x 1          | AMP 171822-4 or equivalent     |
| Serial ATA x 4         | Molex 675820000 or equivalent  |
| Process EPS 8 Pins x 1 | Molex 39-01-2080 or equivalent |
| PCIe (6+2) x 1         |                                |

#### Standard Output Cable Length:

550 mm / 21.65 Inches

#### Power Chassis Dimension:

140(L) x 150(W) x 86(H) mm / 5.51(L) x 5.9(W) x 3.39(H) Inches

#### Net Weight:

2~2.3 kgs / 4.4~5.07 Lbs

#### Gross Weight:

2.1~2.4 kgs / 4.63~5.29 Lbs

#### Packing Detail:

8 PCs

#### Measurement of Carton:

0.054 m<sup>3</sup> / 1.92 Cuft