



## ±12V DC Input Industrial PC ATX 2.01 & 2.03 Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
<b>12</b>	STC-121000	1000 W continuous	±12V DC	±9V ~ ±18V DC	Not Protected
	STC-12850	850 W continuous			
	STC-12850H-4VP	850 W continuous			

### ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, 80x80x25 mm Fan x 1 pc
- ▶ Fan type: DC type, 2 x Ball Bearing, 6200 rpm, Optional Fan Control Card
- ▶ Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version). Specifications are equivalent
- ▶ Operating Temperature: 0°C~+50°C (-30°C~+60°C Optional H version) 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 200A/300V UL Approved Gold Plated Brass 2 Pin 12.5mm Screw Terminal
- ▶ Input Current 62A/125A(850W) 74A/148A(1000W) @Full Load High Line & Low Line
- ▶ Inrush Current Less than 90A Cold start @25°C ambient

### DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current				Ripple & Noise
	Load	Line	Cross	1000W		850W		
				Min.	Max.	Min.	Max.	
+5V	±5%	±1%	±5%	0A	25A	0A	25A	50mV
+12V				0A	80A	0A	68A	120mV
+3.3V				0A	25A	0A	25A	50mV
-12V				0A	1A	0A	1A	120mV
+5VSB				0A	3.5A	0A	3.5A	50mV
The output current of combined load on +3.3 V & +5V DC output shall not exceed				40A		30A		Amps
Maximum continuous total DC output power shall not exceed				1000		850		Wattage

### OVERALL PERFORMANCE:

- ▶ Efficiency: 67% typical @12V 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: >90,000 hours @max. Load, 12V 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 @ 12V DC

#### **Output Device Connector Specific:**

ATX 24 Pins x 1	Molex 29-01-2240 or equivalent
+12V(P4) 4 Pins x 1	Molex 39-01-2040 or equivalent
HDD, DVD 4 Pins x 2	Molex 8981-04P or equivalent
FDD 4 Pins x 2	AMP 171822-4 or equivalent
Serial ATA x 8	Molex 675820000 or equivalent
Processor EPS 8 Pins x 2	Molex 39-01-2080 or equivalent
PCIe 6 + 2 pin x 4 (Max Optional 10 sets)	

#### **Standard Output Cable Length:**

610 mm / 24 Inches

#### **PCB specific:**

- ▶ 8 Layer 1.78mm
- ▶ Copper: 3 Oz each layer
- ▶ Thickness: 1.6 mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

#### **Power Chassis Dimension:**

225(L) x 150(W) x 86(H) mm / 8.86(L) x 5.9(W) x 3.39(H) Inches

#### **Net Weight:**

4.3 kg / 9.479 lbs

#### **Gross Weight:**

4.8 kg / 10.582 lbs

#### **Packing Detail:**

2 PCs  
GW 10.8 kg

#### **Measurement of Carton:**

41 x 28 x 41 cm  
0.047 m<sup>3</sup> / 1.66 Cuft