



±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
12	STC-121000	1000 W continuous	±12V DC	±9V ~ ±18V DC	Not Protected
	STC-121100	1100 W continuous	±12V DC	±9V ~ ±18V DC	Not Protected

* H version (Black color chassis)

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, 80x80x25 mm Fan x 2 pcs
- ▶ Fan type: DC type, 2 x Ball Bearing, 6200 rpm, Optional Fan Control Card
- ▶ Fan Noise Level: 40 dBA (DELTA fan brand Official Data at 4000 rpm, 46.62 CFM) @ Full Load
- ▶ Fan Noise Level tested: 58 dBA @ Distance 1m (DELTA fan brand 4000 rpm, 46.62 CFM) @ Full Load
- ▶ Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version) with the same specification
- ▶ Operating Temp.: 0°C~+50°C Full Load
- ▶ Operating Temp.: -30°C~+60°C Full Load / **H version**
- ▶ Output Power: 100% @ 50°C, 70% @ 60°C, 50% @ 70°C
- ▶ Output Power: 100% @ 60°C, 70% @ 65°C, 50% @ 70°C / **H version**
- ▶ Operating Humidity: 20%~85% RH (Non condensing)
- ▶ Operating Humidity: 95% RH Non condensing / **H version**
- ▶ 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 (*) 220A thickness 1.0mm/1port Positive Terminal/1port Negative Terminal
- ▶ Input Current 72A/144A(**1000W**) & 82A/165A(**1100W**) @Full Load High Line & Low Line
- ▶ Inrush Current Less than 90A Cold start @25°C ambient

(*) Note: See pictures of Input Terminal Connector at the Bottom of this document

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current				Ripple & Noise
	Load	Line	Cross	1000W		1100W		
+5V	±3%	±1%	±5%	Min	Max	Min	Max	50mV
+12V				0A	35A	0A	35A	120mV
+3.3V				0A	83A	0A	92A	50mV
-5V				0A	22A	0A	22A	50mV
-12V	±8%			Optional	Optional	Optional	Optional	50mV
+5VSB	±5%			0A	0.3A	0A	0.3A	120mV
				0A	4A	0A	4	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				175		175		Wattage
Maximum continuous total DC output power shall not exceed				1000		1100		

OVERALL PERFORMANCE:

- Efficiency: 75% typical @12V DC Full Load
- Hold up time: Output voltage stays regulated for at least 16ms with 100% load after loss of DC input
- Rise time: Output voltage rise from 10% to 90% with full load shall be in 20ms maximum
- 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@4.4V, +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
- CPU EPS 8 Pins x 1: Molex 39-01-2080 or equivalent
- PCIe x 4:

Standard Output Cable Length:

610 mm / 24 Inches

Power Chassis Dimension:

270(L) x 150(W) x 86(H) mm / 10.63(L) x 5.9(W) x 3.39(H) Inches

PCB specific:

- Layers: 4

▶ Copper:	3 Oz
▶ Thickness:	1.6mm
▶ Material:	FR4
▶ PCB material origin:	Taiwan

Net Weight:

4.7 kg / 10.36 lbs

Gross Weight:

5.3 kg / 11.68 lbs

Packing Detail

2 PCs / Carton

N.W. 10.8 kg / 23.8 lbs

G.W. 11.8 kg / 26.0 lbs

Measurement of Carton

0.045 m³ / 1.58 Cu. Ft

Input Connector Terminal Pictures:



