



±12V DC Input Industrial PC ATX 2.03 2U Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
12	STC-12600D	600W continuous	±12V DC	±9V ~ ±17V DC	Protected (Max.50V DC)
	STC-12400D	400W continuous			

* H version (Black color chassis)

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, 60x60x25 mm Fan x 1 (With Two Ball Bearing)
- ▶ Fan Noise Level: 63dBA @ 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.: -20°C~+60°C Full Load / **H version**
- ▶ 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: 85A/600V 2-Pin M5 Nickel Plated Steel Terminal (HD-151-02P-C) with cover
- ▶ Input connection: Make sure plug power source according to the label instruction
- ▶ Input Current: 47.6A/90A(**600W**) 31.7A/60A(**400W**) @Full Load High Line & Low Line
- ▶ Inrush Current: Less than 40A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current				Ripple & Noise		
	Load	Line	Cross	600W		400W				
Min.				Max.	Min.	Max.				
+5V	±5%	±1%	±5%	0.5A	25A	0A	30A	50mV		
+12V				1A	48A	0A	30A	120mV		
+3.3V				0.5A	25A	0A	20A	50mV		
-12V	±8%			0A	0.83A	0A	1A	120mV		
+5VSB	±5%			0.1A	3.5A	0A	3A	50mV		
Maximum continuous combined load on +3.3 V & +5V & 12V DC output shall not exceed				570		373		Wattage		
Maximum continuous total DC output power shall not exceed				600		400				

OVERALL PERFORMANCE:

- ▶ Efficiency: 65% typical @12V DC Full Load
- ▶ Hold up time: The output voltage stays regulated for at least 16ms with 100% load after loss of DC input
- ▶ Rise time: The 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@4.5V, +5V@6V, +12V@15.6V,

RELIABILITY:

- ▶ MTBF: >80,000 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 pin x 1 Molex 29-01-2240 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
- ▶ CPU EPS 8 pin (4+4) x 2 Molex 39-01-2080 or equivalent
- ▶ PCIe 8 pin (6+2) x 1

Standard Output Cable Length:

550 mm / 21.65 Inches

PCB specific:

- ▶ Layers: 2 / **STC-12400D**
4 / **STC-12600D**
- ▶ Copper: 3 Oz
- ▶ Thickness: 1.6mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

Power Chassis Dimension:

220(W) x 100(L) x 70(H) mm / 8.66(L) x 3.94(W) x 2.76(H) inches / **STC-12400D**

315(W) x 100(L) x 70(H) mm / 12.4(L) x 3.94(W) x 2.76(H) inches / **STC-12600D**

Net Weight:

1 pc / 2.4 kg / 5.29 lbs / **STC-12400D**

1 pc / 3.11 kg / 6.85 lbs / **STC-12600D**

Gross Weight:

1 pc / 2.6 kg / 5.73 lbs / **STC-12400D**

6 pcs / 17 kg / 37.47 lbs / **STC-12400D**

1 pc / 3.4 kg / 7.49 lbs / **STC-12600D**

4 pcs / 14 kg / 30.86 lbs / **STC-12600D**

Packing Detail / Measurement of Carton:

1 pc / 30.2 x 19 x 11.5 cm / **STC-12400D**

6 pcs / 57 x 33 x 26 cm / 1.73 Cuft / 0.048 m³ / **STC-12400D**

1 pc / 39.7 x 19 x 11.5cm / **STC-12600D**

4 pcs / 41 x 40 x 24 cm / 1.377 Cuft / 0.039 m³ / **STC-12600D**