



120V DC Input Industrial PC ATX 12V 2.03 1U Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
120	STC-120500I	500W continuous	±120V DC	±90V ~ ±140V DC	Protected (Max.150V DC)
	STC-120450I	450W continuous			

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, **40x40x28mm Fan x 2 (With Two Ball Bearing)**
- ▶ Noise Level: 65dBA @ Full Load (for STC-120450I)
- ▶ Operating Temperature: **0°C~+50°C (-20°C~+60°C optional) Full Load**
- ▶ 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 Above Sea level 3000M

DC INPUT CHARACTERISTICS:

- ▶ Input connector type 40A/ 300V Single table type Terminal x 2
- ▶ Input Current 4.4A/7A(500W) 4.17A/6.5A(450W) @Full Load High Line & Low Line
- ▶ Inrush Current Less than 20A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current				Ripple & Noise
	Load	Line	Cross	500W		450W		
				Min.	Max.	Min.	Max.	
+5V	±5%	±1%	±5%	0A	35A	0A	40A	50mV
+12V				0A	40A	0A	30A	120mV
+3.3V				0A	25A	0A	25A	50mV
-12V	±8%			0A	1A	0A	1A	120mV
+5VSB	±5%			0A	3.5A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V & 12V DC output shall not exceed				470		420		Wattage
Maximum continuous total DC output power shall not exceed				500		450		

OVERALL PERFORMANCE:

- ▶ Efficiency **75% typical @ 120V DC Input 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: 80,000 hours @max. Load, 120V DC & 25°C ambient
- ▶ Safety Standards: Meet IEC60950-1 and 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: 2000V DC for 60 seconds
- ▶ Dielectric Withstand INPUT to FRAME GROUND: 2000V DC for 60 seconds
- ▶ Leakage Current <0.005µA @120V 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 7	Molex 8981-04P or equivalent
FDD 4 Pins x 1	AMP 171822-4 or equivalent
Serial ATA x 2	Molex 675820000 or equivalent
Process EPS 8 Pins x 1	Molex 39-01-2080 or equivalent
PCIe 12V 6+2 pin x 2	

Standard Output Cable Length From Chassis:

550 mm ±50mm / 21.6 inches

Power Chassis Dimension:

450W: 205(L) x 100(W) x40.5(H) mm / 8.07(L) x 3.94(W) x 1.59(H) inches
450W (optional): 220(L) x 100(W) x40.5(H) mm / 8.66(L) x 3.94(W) x 1.59(H) inches
500W: 240(L) x 100(W) x40.5(H) mm / 9.44(L) x 3.94(W) x 1.59(H) inches

Net Weight:

2 kg / 4.411 Lbs

Gross Weight:

2.1~2.4 kg / 4.63 ~ 5.29 Lbs

Packing Detail:

8 PCs

Measurement of Carton:

0.049 m³ / 1.73 Cuft