



48V 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
48	STC-48700I	700W continuous	±48V DC	±36V ~ ±70V DC	Protected (Max.100V DC)
	STC-48600I	600W continuous			
	STC-48450I	450W continuous			

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, **40x40x28mm Fan x 2 (With Two Ball Bearing)**
- ▶ Noise Level: 65dBA @ Full Load (for STC-484500I)
- ▶ 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 12.1A/24.3A(700W) 10.4A/20.8A(600W) 8A/16.25A(450W)
@Full Load High Line & Low Line
- ▶ Inrush Current Less than 15A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current						Ripple & Noise
	Load	Line	Cross	700W		600W		450W		
				Min	Max	Min	Max	Min	Max	
+5V	±5%	±1%	±5%	0.5A	35A	0.5A	25A	0A	40A	50mV
+12V				1A	48A	1A	48A	0A	30A	120mV
+3.3V				0.5A	25A	0.5A	25A	0A	25A	50mV
-12V	±8%			0A	1A	0A	1A	0A	1A	120mV
+5VSB	±5%			0.1A	3.5A	0.1A	3.5A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				200		166				
Maximum continuous combined load on +3.3 V & +5V & 12V DC output shall not exceed				670		570		420		Wattage
Maximum continuous total DC output power shall not exceed				700		600		450		

OVERALL PERFORMANCE:

- ▶ Efficiency 70~75% typical @48V 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, 48V 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: 1000V DC for 60 seconds
- ▶ Dielectric Withstand INPUT to FRAME GROUND: 1000V DC for 60 seconds
- ▶ Leakage Current <0.005µA @48V 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 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

PCB specific:

- ▶ Layers: 2 (450W, 600W)
4 (700W)
- ▶ Copper: 3 Oz
- ▶ Thickness: 1.6mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

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
600W:	240(L) x 100(W) x40.5(H) mm / 9.44(L) x 3.94(W) x 1.59(H) inches
New! 700W:	295(L) x 100(W) x40.5(H) mm / 11.61(L) x 3.94(W) x 1.59(H) inches
700W:	340(L) x 100(W) x40.5(H) mm / 13.38(L) x 3.94(W) x 1.59(H) inches

Net Weight:

450W: 2 kg / 4.411 Lbs
700W: 2.7 kg / 5.95 Lbs

Gross Weight:

2.1~2.4 kg / 4.63 ~ 5.29 Lbs

Packing Detail:

450W:
8PCs
N.W.: 15.7 kg / 34.6 Lbs
G.W.: 16.7 kg / 36.81 Lbs

Measurement of Carton:



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0.049 m³ / 1.73 Cuft