



**±24V DC Input Industrial PC ATX 12V 2.03 1U Switching Mode Power Supply**

<u>Series</u>	<u>Model No.</u>	<u>Output Watts</u>	<u>Input Voltage</u>	<u>Input Voltage range</u>	<u>Polarity reverse protection</u>
<b>24</b>	STC-24700I	700W continuous	±24V DC	±18V ~ ±36V DC	Protected (Max.60V DC)
	STC-24550I	550W continuous			
	STC-24400I	400W continuous			
	STC-24300I	300W continuous			

**ENVIRONMENTAL CONDITIONS:**

- ▶ Cooling: Forced Air-cooling, **40x40x28mm Fan x 2 (With Two Ball Bearing)**
- ▶ Fan Noise Level: 65dBA @ Full Load (for STC-24400I)
- ▶ Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version). Specifications are equivalent
- ▶ Operating Temperature: 0°C~+50°C Full Load  
-20°C~+60°C Full Load \* optional **H version (Black color chassis)**
- ▶ Operating Humidity: 20%~85% RH Non condensing  
90% RH Non condensing \* optional **H version (Black color chassis)**
- ▶ Storage Temperature: -20°C~+80°C (-40°C~+80°C for STC-24700IH)
- ▶ 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 24.9/50A(700W) 19A/38A(550W) 14A/28A(400W) 9A/21.5A(300W)  
@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	700W		550W		400W		300W		
				Min	Max	Min	Max	Min	Max	Min	Max	
+5V	±5%	±1%	±5%	0.5A	35A	0.5A	35A	0A	40A	0A	30A	50mV
+12V				1A	48A	1A	40A	0A	30A	0A	20A	120mV
+3.3V				0.5A	25A	0.5A	25A	0A	25A	0A	21A	50mV
-12V				0A	1A	0A	1A	0A	1A	0A	1A	120mV
+5VSB				0.1A	3.5A	0.1A	3.5A	0A	3A	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		520		370		270		Wattage
Maximum continuous total DC output power shall not exceed				700		550		400		300		
MOQ requirement										30pcs		

## OVERALL PERFORMANCE:

- ▶ Efficiency 75%(550W), 72%(700W) typical @24V 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: >100,000 hours @max. Load, 24V 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: 500V DC for 60 seconds
- ▶ Dielectric Withstand INPUT to FRAME GROUND: 500V DC for 60 seconds
- ▶ Leakage Current <0.005µA @24V 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

## PCB specific:

- ▶ Layers: 2 (300W, 400W, 550W)  
4 (700W)

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

**Power Chassis Dimension:**

<b>300W:</b>	205(W) x 100(L) x40.5(H) mm / 8.07(L) x 3.94(W) x 1.59(H) inches
<b>400W:</b>	205(W) x 100(L) x40.5(H) mm / 8.07(L) x 3.94(W) x 1.59(H) inches
<b>400W (optional):</b>	220(W) x 100(L) x40.5(H) mm / 8.66(L) x 3.94(W) x 1.59(H) inches
<b>550W:</b>	240(W) x 100(L) x40.5(H) mm / 9.44(L) x 3.94(W) x 1.59(H) inches
<b>700W:</b>	340(W) x 100(L) x40.5(H) mm / 13.38(L) x 3.94(W) x 1.59(H) inches

**Net Weight:**

<b>400W:</b>	2 kg / 4.41 Lbs
<b>500W:</b>	2.2 kg / 4.85 Lbs
<b>700W:</b>	2.7 kg / 5.95 Lbs

**Gross Weight:**

<b>400W:</b>	2.1~2.4 kg / 4.63 ~ 5.29 Lbs
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**Packing Detail:**

<b>400W:</b>	8PCs N.W.: 16 kg / 35.27 Lbs G.W.: 18 kg / 39.68 Lbs
<b>550W:</b>	8PCs N.W.: 17.6 kg / 38.8 Lbs G.W.: 20 kg / 44.09 Lbs

**Measurement of Carton:**

0.049 m<sup>3</sup> / 1.73 Cuft