



**±24V DC Input Industrial PC ATX 2.01
Switching Mode Power Supply**

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
24	STC-24500	500 W	±24V DC	±18V ~ ±36V DC	Protected (Max.60V DC)
	STC-24450	450 W			
	STC-24400	400 W			
	STC-24350	350 W			

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, 80x80x25 mm Fan x 1 pcs
- ▶ Fan type (350W): DC type, 2 x Ball Bearing, 3200 rpm, no Fan Control Card
- ▶ Fan type (450W, 500W): DC type, 2 x Ball Bearing, 4000 rpm, with Fan Control Card
- ▶ Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version) with the same specification
- ▶ Operating Temperature: 0°C~+50°C Full Load
-20°C~+60°C for Optional * H version (Black color chassis)
- ▶ Operating Humidity: 20%~85% RH Non condensing
90% for Optional * H version (Black color chassis)
- ▶ Output power: 100% @ +50°C, 70% @ +60°C, 50% @ +70°C
- ▶ 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 30A/300V UL Approved Gold plated brass 1.2t/ 3-Pin Terminal
- ▶ Input Current 17.3A/35.5A(500W) 16.5A/32.5A(450W) 14A/28.8A(400W) 12.6A/25.5A(350W)
@Full Load High Line & Low Line
- ▶ Inrush Current Less than 35A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current								Ripple & Noise
	Load	Line	Cross	500W		450W		400W		350W		
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
+5V	±5%	±1%	±5%	0A	40A	0A	40A	0A	40A	0A	40A	50mV
+12V				0A	35A	0A	35A	0A	30A	0A	20A	120mV
+3.3V				0A	30A	0A	30A	0A	30A	0A	21A	50mV
-5V					0A	1A	0A	1A	0A	1A	0A	1A
-12V	±8%			0A	1A	0A	1A	0A	1A	0A	1A	120mV
+5VSB	±5%			0A	3A	0A	3A	0A	3A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				250		200		200		200		Watts
Maximum continuous combined load on +3.3 V & +5V & 12V DC output shall not exceed				470		420		370		320		
Maximum continuous total DC output power shall not exceed				500		450		400		350		

OVERALL PERFORMANCE:

- ▶ Efficiency: 75% (500W), 70% (350W, 450W) typical @24V DC 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, 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 Pin x 1	Molex 29-01-2240 or equivalent
ATX 12V(P4) 4 Pin x 1	Molex 39-01-2040 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
Process EPS 8 Pins x 1	Molex 39-01-2080 or equivalent
PCIe (6+2) x 1	

Standard Output Cable Length:

550 mm / 21.65 Inches

PCB specific:

- ▶ 2 Layer STC-24350, STC-2440, STC-24450
- ▶ 4 Layer STC-24500
- ▶ Copper: 3 Oz each layer
- ▶ Thickness: 1.6 mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

Power Chassis Dimension:

140(L) x 150(W) x 86(H) mm / 5.51(L) x 5.9(W) x 3.39(H) Inches

Net Weight:

2~2.3 kgs / 4.4~5.07 Lbs

Gross Weight:

2.1~2.4 kgs / 4.63~5.29 Lbs

Packing Detail:

8 PCs

Measurement of Carton:

0.054 m³ / 1.92 Cuft