



±48V DC Input Industrial PC ATX 2.01 Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
48	STC-48650	650 W	±48V DC	±37V ~ ±71V DC	Fuse protected
	STC-48500	500 W			Fuse protected
	STC-48400	400 W			Protected (Max.100V DC)
	STC-48350	350 W			Protected (Max.100V DC)

* H version (Black color chassis)

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, 80x80x25 mm Fan x 1 pc
- ▶ Fan type: DC type, 2 x Ball Bearing, 4000 rpm, with Fan Control Card
- ▶ Fan Noise Level: 40 dBA (DELTA fan brand Official Data at 4000 rpm, 46.62 CFM) @ Full Load
- ▶ Fan Noise Level tested: 58 dBA @ Distance 1m (DELTA fan brand 4000 rpm, 46.62 CFM) @ 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.: / **H version** -20°C~+60°C Full Load
- ▶ Operating Humidity: 20%~85% RH Non condensing
- ▶ Operating Humidity: / **H version** 90% RH Non condensing
- ▶ Output power: 100% @ +50°C, 70% @ +60°C, 50% @ +70°C
- ▶ Output power: / **H version** 100% @ +60°C, 70% @ +65°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 25A/300V UL Approved 3-Pin Terminal
- ▶ Input connection Make sure plug power source according to the label instruction.
- ▶ Input Current 11.5A/22.3A(**650W**) 9A/17A(**500W**) 7A/14.5A(**400W**) 6.3A/12.5A(**350W**)
@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	650W		500W		400W		350W		
+5V	±5%	±1%	±5%	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
+12V				1A	30A	1A	30A	0A	40A	0A	40A	50mV
+3.3V				1A	45A	1A	40A	0A	30A	0A	30A	120mV
-5V				0A	22A	0A	22A	0A	30A	0A	30A	50mV
-12V	±8%	±1%	±5%					0A	1A	0A	1A	50mV
+5VSB	±5%			0A	0.3A	0A	0.3A	0A	1A	0A	1A	120mV
				0A	2.5A	0A	2.5A	0A	3A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				200		200		200		200		Wattage
Maximum continuous total DC output power shall not exceed				650		500		400		350		

OVERALL PERFORMANCE:

- ▶ Efficiency: 70% (**350W, 400W**), 73% (**500W, 650W**) typical @48V 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, 48V DC & 25°C ambient
- ▶ Safety Standards: Meet IEC60950-1, EN60950-1, EN62368-1
- ▶ 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 @48V 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 / **STC-48350, STC-48400**
- ▶ 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 Pins x 1 Molex 39-01-2080 or equivalent / **STC-48350, STC-48400**
- ▶ CPU EPS 8(4+4) Pins x 2 Molex 39-01-2080 or equivalent / **STC-48500, STC-48650**
- ▶ PCIe (6+2) x 1
- ▶ PCIe (6+2) x 2 **STC-48650**

Standard Output Cable Length:

550 mm / 21.65 Inches

PCB specific:

- ▶ Layers: 2 / **STC-48350, STC-48400**
- ▶ Layers: 4 / **STC-48500, STC-48650**

▶ Copper:	3 Oz
▶ Thickness:	1.6mm
▶ 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 kg / 4.4 lbs / **STC-48350, STC-48400**

2.3 kg / 5.07 lbs / **STC-48500, STC-48650**

Gross Weight:

2.5 kg / 5.51 lbs / **STC-48350, STC-48400**

2.8 kg / 6.17 lbs / **STC-48500, STC-48650**

Packing Detail:

8 PCs

Measurement of Carton:

0.054 m³ / 1.92 Cuft