



**±220V DC Input Industrial PC ATX 2.01
Switching Mode Power Supply**

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
220	STC-220650	650 W	±220V DC	±190V ~ ±260V DC	Fuse protected
	STC-220500	500 W			Fuse protected
	STC-220450	450 W			Protected (Max.500V 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	2.25A/3.47A(650W) 2.4A/3.3A(500W) 2.2A/2.8A(450W) @Full Load High Line & Low Line
► Inrush Current	Less than 6A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current						Ripple & Noise
	Load	Line	Cross	650W		500W		450W		
				Min.	Max.	Min.	Max.	Min.	Max.	
+5V	±5%	±1%	±5%	1A	30A	1A	30A	0A	45A	50mV
+12V				1A	45A	1A	40A	0A	35A	120mV
+3.3V				0A	22A	0A	22A	0A	30A	50mV
-5V								0A	0A	50mV
-12V	±8%			0A	0.3A	0A	0.3A	0A	1A	120mV
+5VSB	±5%			0A	2.5A	0A	2.5A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				200		200		200		Wattage
Maximum continuous total DC output power shall not exceed				650		500		450		

OVERALL PERFORMANCE:

- Efficiency: 80% (450W), 85% (500W, 650W) typical @220V 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, 220V 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: 2500V DC for 60 seconds
- Dielectric Withstand: INPUT to FRAME GROUND: 2500V DC for 60 seconds
- Leakage Current: <0.005μA @ 220V DC

Output Device Connector Specific:

- ATX 24 Pins x 1 Molex 29-01-2240 or equivalent
- 12V(P4) 4 Pins x Molex 39-01-2040 or equivalent / **STC-220450**
- HDD, DVD 4 Pins x 2 Molex 8981-04P or equivalent
- FDD 4 Pins 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-220450**
- CPU EPS 8(4+4) Pins x 2 Molex 39-01-2080 or equivalent / **STC-220500, STC-220650**
- PCIe (6+2) x 1
- PCIe (6+2) x 2 **STC-220650**

Standard Output Cable Length:

550 mm / 21.65 Inches

PCB specific:

- Layers: 2 / **STC-220450**

▶ Layers:	4 / STC-220500, STC-220650
▶ 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-220450**

2.3 kg / 5.07 lbs / **STC-220500, STC-220650**

Gross Weight:

2.5 kg / 5.51 lbs / **STC-220450**

2.8 kg / 6.17 lbs / **STC-220500, STC-220650**

Packing Detail:

8 PCs

Measurement of Carton:

0.054 m³ / 1.92 Cuft