



Backplane
Systems
Technology

Backplane Systems
Technology Pty Ltd
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12V DC Input Industrial PC ATX 2.01 & 2.03 PS2 Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
12	STC-12500	500W continuous	±12V DC	±9V ~ ±18V DC	Not Protected
	STC-12450	450W continuous			Not Protected
	STC-12400	400W continuous			Not Protected

ENVIRONMENTAL CONDITIONS:

- ▶ Cooling: Forced Air-cooling, **80x80x25 mm Fan x 1 pcs**
- ▶ Fan type: DC type, 2 x Ball Bearing, brand DELTA, 4000 rpm, Optional Fan Control Card
- ▶ Fan Noise Level: 60dBA @ Full Load (for STC-12500)
- ▶ Operating Temperature: **0°C~+60°C (-20°C~+60°C optional) Full Load**
- ▶ Output Power: 100°C @60°C, 70°C @70°C
- ▶ 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 3000M Above Sea level

DC INPUT CHARACTERISTICS:

- ▶ Input connector type 100A/300V UL Approved Gold Plated Brass 1.2t/3-pin Terminal
- ▶ Input connector type Make sure plug power source according to the lable instruction
- ▶ Input Current 42A/83A(500W) 38A/75A(450W) 34A/67A(400W)
@Full Load High Line & Low Line
- ▶ Inrush Current Less than 90A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current						Ripple & Noise
	Load	Line	Cross	500W		450W		400W		
				Min	Max	Min	Max	Min	Max	
+5V	±5%	±1%	±5%	0A	60A	0A	50A	0A	40A	50mV
+12V				0A	35A	0A	30A	0A	25A	120mV
+3.3V				0A	35A	0A	30A	0A	30A	50mV
-12V				0A	1A	0A	1A	0A	1A	120mV
+5VSB	±5%			0A	3A	0A	3A	0A	3A	50mV
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				300		250		200		Wattage
Maximum continuous combined load on +3.3 V & +5V & 12V DC output shall not exceed				470		420		370		
Maximum continuous total DC output power shall not exceed				500		450		400		
Remark: MOQ or sample charge						24pcs		24pcs		

OVERALL PERFORMANCE:

- ▶ Efficiency: 65% typical @12V DC Full Load



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- ▶ 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: >90,000 hours @max. Load, 12V 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 @12V 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 From Chassis:

530mm / 20.87 inches

Power Chassis Dimension:

170(W) x 150(W) x 86(H) mm / 6.69(W) x 5.9(L) x 3.37(H) inches

Screw hole:

Front Panel with 4 screw holes
Rear Panel bracket with 2 screw holes

Net Weight:

3 kg / 6.6 lbs

Gross Weight:

3.45 kg / 7.59 lbs

Packing Detail:

4 PCs

Measurement of Carton:

2.33 Cuft / 36 x 35 x 51 cm

G.W. 14kg



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Input terminal connection by parallel wires:

