



**±24V DC Input Industrial PC PS2 4U ATX  
Switching Mode Hot Swap  
Mini Redundant Power Supply**

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
<b>24</b>	STC-24500RD	500 W continuous	±24V DC	±18V ~ ±36V DC	<b>Max 60V DC</b>

**ENVIRONMENTAL CONDITIONS:**

- Cooling: Forced Air-cooling, 40x40x28 mm Fan x 2 (With Two Ball Bearing)
- Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version) with equivalent specifications
- Operating Temperature: 0°C~+50°C (Full Load)
- Output Power: 100% @ 50°C, 70% @ 60°C
- Operating Humidity: 20%~85% RH. (Non condensing) (95% Optional)
- 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 1.2f/2 Terminal
- Input Current 17.4A/34.7A(**500W**) @ Full Load High Line & Low Line
- Inrush Current Less than 50A Cold start @ 25°C ambient

**DC OUTPUT CHARACTERISTICS:**

Output Voltage	Regulation			Output Current		Ripple & Noise	
	Load	Line	Cross	<b>500W</b>			
				Min.	Max.		
+5V				1A	35A	50mV	
+12V				1A	40A	120mV	
+3.3V	±5%			0.5A	22A	50mV	
-5V (optional)		±1%	±5%	0A	0.5A	50mV	
-12V	±8%			0A	0.3A	120mV	
+5VSB	±5%			0A	3.5A	50mV	
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				<b>175</b>		Wattage	
Maximum continuous combined load on +3.3 V & +5V and 12V DC output shall not exceed				<b>470</b>			
Maximum continuous total DC output power shall not exceed				<b>500</b>			

**OVERALL PERFORMANCE:**

- Efficiency: 75% typical @ 24V DC Full Load
- Hold up time: When power shut down DC output 5V must be maintain 1ms @24V DC
- 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 @3.6V~4.3V DC , +5V @5.5V~6.5V DC, +12V @13.2~15.6V DC

**RELIABILITY:**

- MTBF: 100,000 hours @ Max. Load, 24V DC & 25°C ambient
- Safety Standards: Meet IEC60950-1, TÜV 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 @ 24 VDC

**LED indicator:**

Power module 1: Green LED when power on

Power module 2: Green LED when power on

**Alarm function:**

In the rear panel with power failure alarm signal to indicate when power failure wire.

**Alarm reset switch**

To reset by switch

**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 4 Molex 8981-04P or equivalent
- FDD 4 Pins x 1 AMP 171822-4 or equivalent
- Serial ATA x 2 Molex 675820000 or equivalent
- CPU EPS 8 Pins x 1 Molex 39-01-2080 or equivalent
- PCIE x 2

**Standard Output Cable Length:**

500 mm / 19.68 Inches

**PCB specific:**

- Layers: 4
- Copper: 3 Oz
- Thickness: 1.6 mm
- Material: FR4
- PCB material origin: Taiwan

**Power Chassis Dimension:**

225(L) x 150(W) x 86(H) mm / 8.86(L) x 5.9(W) x 3.39(H) Inches

**Rackmount Chassis solution:**

4U IPC Chassis 510mm Model No. GHI419ATX

**Screw hole:**

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

**Net Weight:**

4.8 kg / 10.85 lbs

**Gross Weight:**

6 kg / 13.22 lbs

**Packing Detail:**

2 pcs  
12 kg / 26.45 lbs

**Measurement of Carton:**

0.045 m3 / 1.59 Cuft

**Note:**

Power Supply is not able to be used in stand alone application  
Use Power Supply in Power Chassis Assembly only