SS-500ES-B1

500 Watt

- **Attractive price-performance ratio**
- **Silent 80mm fan**
- **High efficiency**

The SS-500ES-B1 is a reliable PC power supply for less demanding industrial and office systems. With its excellent price-performance ratio it is a popular solution for applications where costs are a critical factor. Due to the very precise adjustment of the fan regulation and the 80mm fan noise development is kept extremely low. With its high efficiency the power supply operates in a most energy-saving way over the whole range of performance.

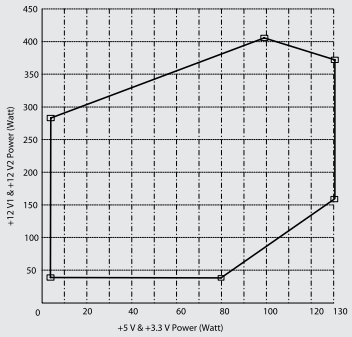
Technical data

Input voltage	90…264 V AC
Input frequency	47…63 Hz
Input current	9 A max
Inrush current	100 A (264 V AC)
Efficiency	82.8…85.6 %
Standby consumption	<1 W (OFF-Mode) / 230 V AC
Hold up time	>10 ms
Power-Good-Signal	Switch on delay 100…500 ms Switch off delay 1 ms
Protection	Short circuit protection: At each output, switch off / +5 V_{sb}, auto recovery Overload protection: 135 %, Switch off Overvoltage protection: +3.3 V (+3.76…+4.3 V), +5 V (+5.74…+7 V), +12 V (+13.4…+15.6 V)
Earth leakage current	<3.5 mA, 250 V AC
Safety / EMC	CB, TÜV, UL, CCC, CE
Operating temperature	0…+50 °C
Derating	From +40…+50 °C, 2 % / °C
MTBF	100 000 h at +25 °C, without fan
Storage temperature	-40…+85 °C
Operating humidity	20…80 %, non-condensing
Dimensions (W x D x H)	150 x 140 x 86 mm ±0.5 mm
Weight (net)	1.5 kg

Product specific data

Sound level	<35 dB(A)

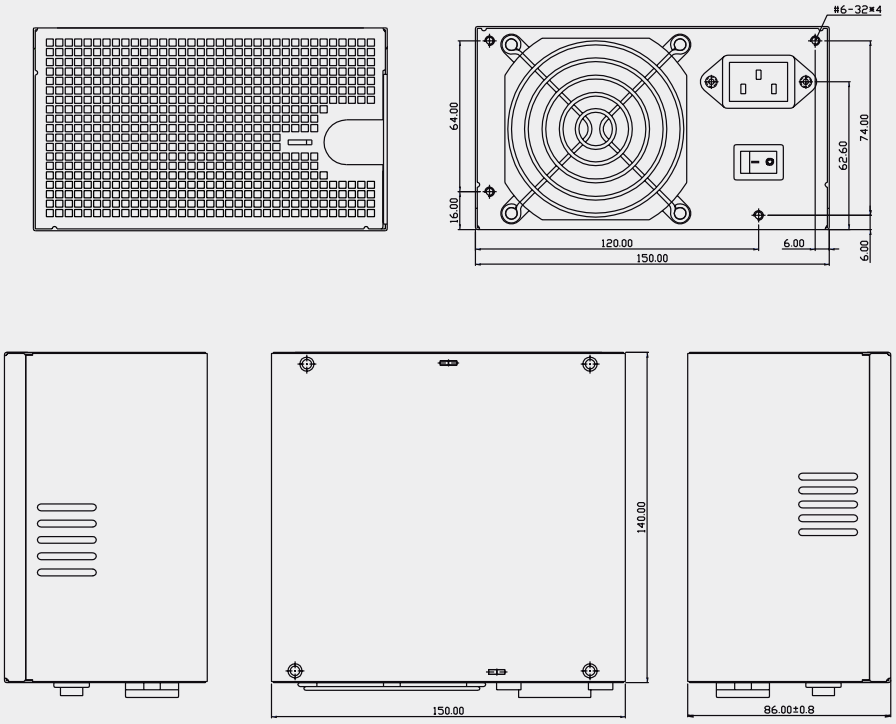
Cross regulation



Article No.	Output voltage	Output current min	max	peak	Load regulation	Ripple & Noise
SS-500ES-B1	+3.3 V	0.1 A	24 A		±5 %	50 mV
	+5 V	0.2 A	24 A		±5 %	50 mV
	+12 V_1	0.1 A	17 A	20 A	±5 %	120 mV
	+12 V_2	0.5 A	17 A	20 A	±5 %	120 mV
	-12 V	0 A	0.8 A		±10 %	120 mV
	+5 V_{sb}	0 A	2.5 A	3 A	±5 %	50 mV

Max. output power is 500 W, combined output power at +3.3 V and +5 V must not exceed 130 W. Combined output current at 12 V1 and V2 must not exceed 34 A / 408 W. Peak output power is 550 W for 1 second. Ripple and noise was measured by a 20 MHz oscilloscope with connected 10 µF electrolytic capacitor and 0.1 µF ceramic capacitor at each output.
This power supply is for assembly purposes only and it must not be operated in unassembled condition. The final assembly has to comply with the valid EMC standards.

Drawing SS-500ES-B1



Tolerance ±0.5 mm

Cable harness SS-500ES-B1

ATX, 550 mm
20+4 pin

BLACK	(GND)	24		12	ORANGE	(+3,3V)
RED	(+5V)	23		11	YELLOW	(+12V1)
RED	(+5V)	22		10	YELLOW	(+12V1)
RED	(+5V)	21		9	PURPLE	(+5Vsb)
NC		20		8	GREY	(PG)
BLACK	(GND)	19		7	BLACK	(GND)
BLACK	(GND)	18		6	RED	(+5V)
BLACK	(GND)	17		5	BLACK	(GND)
GREEN	(PSon)	16		4	RED	(+5V)
BLACK	(GND)	15		3	BLACK	(GND)
BLUE	(-12V)	14		2	ORANGE	(+3,3V)
ORANGE	(+3,3V)	13		1	ORANGE	(+3,3V)

P4, 550 mm

YELLOW	(+12V2)	4		2	BLACK	(GND)
YELLOW	(+12V2)	3		1	BLACK	(GND)

PCI Express, 550 mm

BLACK	(GND)	6		3	YELLOW	(+12V1)
BLACK	(GND)	5		2	YELLOW	(+12V1)
BLACK	(GND)	4		1	YELLOW	(+12V1)

PCI Express, 550 mm

BLACK	(GND)	6		3	YELLOW	(+12V1)
BLACK	(GND)	5		2	YELLOW	(+12V1)
BLACK	(GND)	4		1	YELLOW	(+12V1)

EPS, 550 mm

YELLOW	(+12V2)	8		4	BLACK	(GND)
YELLOW	(+12V2)	7		3	BLACK	(GND)
YELLOW	(+12V2)	6		2	BLACK	(GND)
YELLOW	(+12V2)	5		1	BLACK	(GND)

HD, 280 mm
HD, 120 mm
HD, 120 mm

4	RED	(+5V)
3	BLACK	(GND)
2	BLACK	(GND)
1	YELLOW	(+12V1)

HD, 440 mm
HD, 120 mm
FDD, 120 mm

4	RED	(+5V)
3	BLACK	(GND)
2	BLACK	(GND)
1	YELLOW	(+12V1)

4	YELLOW	(+12V1)
3	BLACK	(GND)
2	BLACK	(GND)
1	RED	(+5V)

SATA 90°, 440 mm
SATA, 150 mm

ORANGE		(+3,3V)
BLACK		(GND)
RED		(+5V)
BLACK		(GND)
YELLOW		(+12V1)

SATA 90°, 440 mm
SATA, 150 mm

ORANGE		(+3,3V)
BLACK		(GND)
RED		(+5V)
BLACK		(GND)
YELLOW		(+12V1)

Tolerance ±20 mm