

Accessory FSP500

Internal 500W Power Supply

EFFICIENT 500W POWER SUPPLY FOR SHUTTLE XPCs

The Shuttle XPC Accessory FSP500 is a high-end power supply with a maximum output wattage of 500W suitable for certain Shuttle XPCs. Thanks to its 80 PLUS Gold certification for power-efficient devices, this power supply is also suitable for ENERGY STAR® compliant systems.



Images are for illustrative purposes only



Use of the power supply FSP500 in the Shuttle XPC cube SH570R8

Product model name

- Shuttle XPC Accessory FSP500
- Original manufacturer's name: FSP500-50FDB (from FSP Technology Inc.)
- Cable lengths designed for the Shuttle XPC.

Input Specifications

- Input voltage: 90-264 V ■ Input frequency: 47-63 Hz
- Input current: max. 3A at 230V AC, max. 6A at 115V AC
- AC connector: IEC 320 C14 (m)

Output Wattage

- Total combined output is 500W max.
- Total combined output of 3.3V and 5V is 90W max.
- Active PFC circuit (Power Factor Correction)
- Maximum output current:
+12V: 41A, +3.3V: 14A, +5V: 16A, +5VSB: 3A (Standby), -12V: 0.5A
- Note: the minimum output current is 0.0A for all lines.

DC Power Connectors

- 1x ATX power with 20 pins ■ 2x ATX 12V power with 4 pins (combinable as 8 pins connector) ■ 4x Serial ATA power ■ 2x Molex power
- 2x PCIe power with 6 and 6+2 pins (for graphics card power)

Protection

- Output over voltage protection ■ Resettable power shut down
- Short circuit protection on all outputs

Certification, Efficiency, Reliability

- EMI/RFI: CE, UKCA, FCC class B, CCC
- Safety: CB EN62368-1 & EN60950-1, TÜV, cUL, CCC
- Efficiency: 80PLUS Gold compliant
- High reliability - 24/7 working ■ MTBF (MIL-HDBK-217): 100.000 hours at 25°C ambient temperature and max. output load

Other features

- Operating temperature: 0 ~ +50°C (at max. 85% RH, non-condensing)
- Storage temperature: -20 ~ +80°C (at max. 90% RH, non-condensing)
- Cooling fan: 40mm ball bearing fan, 12V DC
- Dimensions: 150 x 81.5 x 40.5 mm (LWH), 5.9 x 3.21 x 1.59 inch
- Weight: net weight: 0,7 kg, gross weight: 0,9 kg

Package contents

- power supply without screws and AC cable

Compatibility

- supported Shuttle XPC models: SH610R4, SH510R4, SH570R6, SH570R6 Plus, SH570R8, SW580R8

More details can be found in the table on the next page



Compatibility:

Which Shuttle XPC cube models are compatible with the FSP300 and FSP500 power supplies?				
Shuttle XPC cube Product Name	Original Power Supply	Serial No.	Compatible?	
			FSP300 (300 W)	FSP500 (500 W)
SH610R4	300 W	all	Yes	Yes (Upgrade)
SH510R4	300 W	all	Yes	Yes (Upgrade)
SH570R6	300 W	all	Yes	Yes (Upgrade)
SH570R6 Plus	500 W	all	Yes (Downgrade*)	Yes
SH570R8	500 W	all	Yes (Downgrade*)	Yes
SW580R8	500 W	all	Yes (Downgrade*)	Yes
SH310R4	300 W	SH310R40301...	No	No
SH310R4V2	300 W	SH310V20201...	No	No
	300 W	SH310V20501...	Yes	Yes (Upgrade)
SH370R6	300 W	SH370R60201...	No	No
SH370R6V2	300 W	SH370V20301...	No	No
	300 W	SH370V20801...	Yes	Yes (Upgrade)
SH370R6 Plus	500 W	SH370R60301...	No	No
SH370R6V2 Plus	500 W	SH370V20401...	No	No
	500 W	SH370V20901...	Yes (Downgrade*)	Yes
SH370R8	500 W	SH370R80201...	No	No
	500 W	SH370R80701...	Yes (Downgrade*)	Yes

*) **Downgrade** means: the original power supply had an output wattage of 500W and this would be reduced to 300W when using FSP300. Please avoid overloading the system with the help of the Power Supply Calculator at <https://global1.shuttle.com/Support/PowerSupplyCalculator>.

Product Comparison FSP300 versus FSP500:

Shuttle Name	FSP300	FSP500
FSP Name (Manufacturer)	FSP300-50FFB	FSP500-50FDB
Max. Output Wattage	300 W	500 W
Efficiency	80PLUS Bronze	80PLUS Gold
Additional Power connectors for the graphics card (PCIe Power)	6-pin (75W) 	6-pin (75W) and 6+2-pin (150W) 

Quick Installation Guide:

Caution:

Do not attempt to open or service this device. Changes or modifications done to this power supply unit not approved by the manufacturer will void warranty and violate CE approval. In case you haven't got necessary technical knowledge how to install the device, please consult an expert or have a specialist company install it for you.

Removing the old power supply unit

1. Unplug the computer from the mains. Unscrew 3 thumbscrews of the chassis cover (photo 1). Slide the cover backwards and upwards.
2. Disconnect all connections between the old power supply unit and the various components such as the mainboard, the hard drive and graphics card, etc. (photo 2)
3. Unscrew the screws that are used to secure the power supply unit to the the computer chassis. Then carefully remove the power supply unit.

Installing the new power supply unit

4. Pick up the new power supply and push the cables of the power supply through the internal housing opening as shown in the photo 2.
5. Fasten the power supply unit to the rear panel with three screws and connect the two ATX connectors (20-pin and 4-pin yellow/black) to the motherboard and proceed with the installation as described in the Shuttle XPC installation guide.



Note: The ATX12V plug of the power supply consists of two 4-pin plugs, which can be combined to one single 8-pin plug (as shown in the photo).

