CORSAIR

SF SERIES™

SF SERIES™

SF750
SF600
SF450

HIGH PERFORMANCE SFX POWER SUPPLY

MANUAL • MANUEL • MANUALE • MANUELLE • MANUAL DE
РУКОВОДСТВО • MANUAL • MANUELL • 用户手册 • 取扱説明書

CORSAIR

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CORSAIR GUARANTEE 7 YEARS

80 PLUS® PLATINUM

CORSAIR

PRODUCT SPECIFICATIONS

Congratulations on the purchase of your new CORSAIR Series High Performance SFX power supply.

SF Series power supplies give you 80 PLUS Platinum efficiency, excellent electrical performance, and virtually silent operation in a SFX form factor. With 105°C Japanese capacitors and Zero RPM fan mode, they're a great choice for high performance small form factor PC's where reliability and low noise are essential.

Safety and protection

- **Over-voltage protection (OVP)**
  Over-voltage protection for the 12V, 5V and 3.3V DC outputs is required to comply with the SFX specification. OVP shuts down the PSU in the event that the DC outputs exceed a set level, determined by the PSU manufacturer. The minimum voltage levels required for compliance are 13.4V for the +12V rail(s), 5.74V for the +5V rail and 3.76V for the 3.3V rail.

- **Over-current protection (OCP)**
  The SF Series features OCP on the 3.3V, 5V and 12V rails. OCP ensures that the output of the DC voltage rails remains within safe operating limits.

- **Over-temperature protection (OTP)**
  OTP ensures that the PSU will shut down when the internal temperature reaches a set point. This is usually as a result of internal current overloading or a fan failure.

- **Short-circuit protection (SCP)**
  A short-circuit is defined as any output impedance of less than 0.1 ohms. Amongst other things, SCP ensures that the PSU shuts down should the 3.3V, 5V and 12V rails short to any other rail, or to ground. It also ensures that no damage should occur to the unit, or your PC's components in the event of a short.

SF750

DIMENSIONS: 125mm (W) x 63.5 mm (H) x 100mm (L)

PACKAGE CONTENTS:

- CORSAIR SF Series power supply unit
- AC power cord
- DC modular cable set
- DC modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual
- SFX to ATX adapter
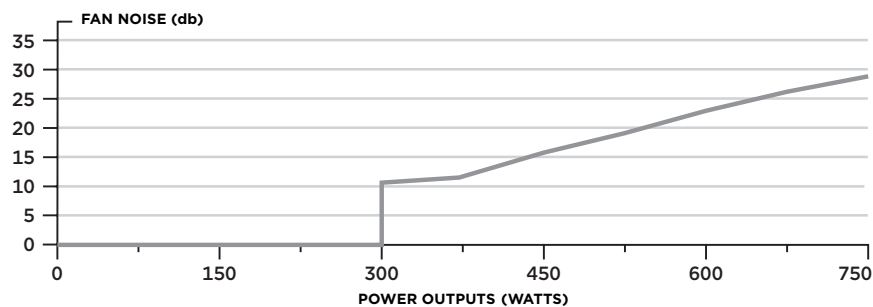- Important safety information

CORSAIR SF750 POWER TABLE

			MAX LOAD	MAX OUTPUT
MODEL	RPS0115	**+3.3V**	20A	130W
PART NO.	CP-9020186	**+5V**	20A	
AC INPUT RATING	100–240V	**+12V**	62.5A	750W
INPUT CURRENT	10A–5A	**-12V**	0.3A	3.6W
FREQUENCY	47–63Hz	**+5Vsb**	2.5A	12.5W
TOTAL POWER: 750W				

CORSAIR SF750 POWER SUPPLY EFFICIENCY
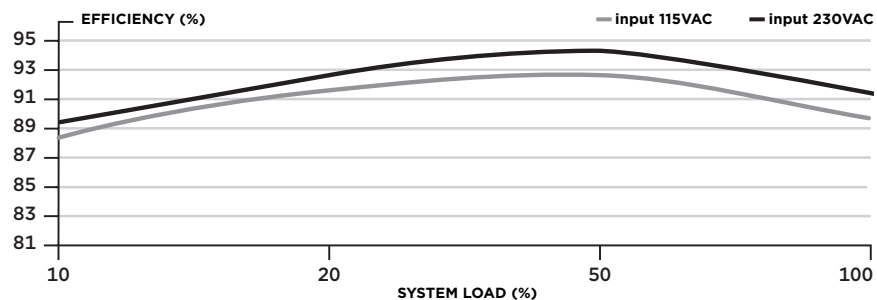
CORSAIR SF750 POWER SUPPLY FAN NOISE CURVE

CORSAIR SF750 DC CABLE LISTING

Qty	Description		Total Length
1	ATX Cable 24 pin	Connectors per cable	300mm (± 10mm)
		1	
		Total connectors	
		1	
2	EPS/ATX12V 8 pin (4+4) cable	Connectors per cable	400mm (± 10mm)
		1	
		Total connectors	
		2	
2	PCIe 8 pin (6+2) cable	Connectors per cable	500mm (± 10mm)
		2	
		Total connectors	
		4	
2	SATA cable (4 SATA)	Connectors per cable	445mm (± 10mm)
		4	
		Total connectors	
		8	
1	Peripheral cable (4-pin)	Connectors per cable	330mm (± 10mm)
		3	
		Total connectors	
		3	

SF600

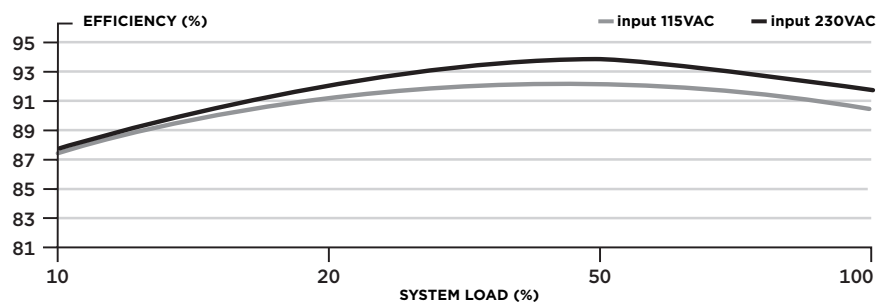**DIMENSIONS:** 125mm (W) x 63.5 mm (H) x 100mm (L)

PACKAGE CONTENTS:

- CORSAIR SF Series power supply unit
- AC power cord
- DC modular cable set
- DC modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual
- SFX to ATX adapter
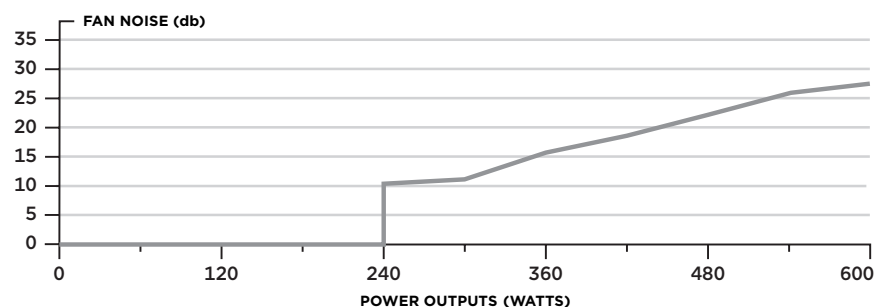- Important safety information

CORSAIR SF600 POWER TABLE

			MAX LOAD	MAX OUTPUT
MODEL	RPS0112	+3.3V	20A	120W
PART NO.	CP-9020182	+5V	20A	
AC INPUT RATING	100–240V	+12V	50A	600W
INPUT CURRENT	10A–5A	-12V	0.3A	3.6W
FREQUENCY	47–63Hz	+5Vsb	2.5A	12.5W
TOTAL POWER: 600W				

CORSAIR SF600 POWER SUPPLY EFFICIENCY

EFFICIENCY (%) — input 115VAC — input 230VAC

SYSTEM LOAD (%)

CORSAIR SF600 POWER SUPPLY FAN NOISE CURVE

FAN NOISE (db)

POWER OUTPUTS (WATTS)

CORSAIR SF600 DC CABLE LISTING

Qty	Description		Total Length
1	ATX Cable 24 pin *300mm*	Connectors per cable	300mm (± 10mm)
		1	
		Total connectors	
		1	
1	EPS/ATX12V 8 pin (4+4) cable *400mm*	Connectors per cable	400mm (± 10mm)
		1	
		Total connectors	
		1	
2	PCIe 8 pin (6+2) cable *400mm*	Connectors per cable	400mm (± 10mm)
		1	
		Total connectors	
		2	
1	SATA cable (4 SATA) *100mm 115mm 115mm 115mm*	Connectors per cable	445mm (± 10mm)
		4	
		Total connectors	
		4	
1	Peripheral cable (4-pin) *100mm 115mm 115mm*	Connectors per cable	330mm (± 10mm)
		3	
		Total connectors	
		3	

SF450

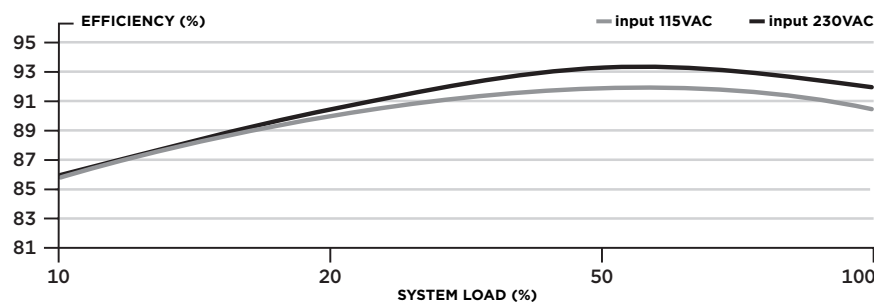**DIMENSIONS:** 125mm (W) x 63.5 mm (H) x 100mm (L)

PACKAGE CONTENTS:

- CORSAIR SF Series power supply unit
- AC power cord
- DC modular cable set
- DC modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual
- SFX to ATX adapter
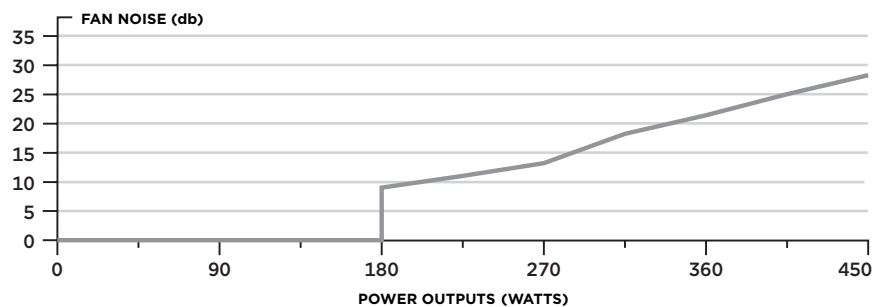- Important safety information

CORSAIR SF450 POWER TABLE

			MAX LOAD	MAX OUTPUT
MODEL	RPS0111	**+3.3V**	15A	100W
PART NO.	CP-9020181	**+5V**	20A	
AC INPUT RATING	100–240V	**+12V**	37.5A	450W
INPUT CURRENT	10A–5A	**-12V**	0.3A	3.6W
FREQUENCY	47–63Hz	**+5Vsb**	2.5A	12.5W
TOTAL POWER: 450W				

CORSAIR SF450 POWER SUPPLY EFFICIENCY

EFFICIENCY (%) — input 115VAC — input 230VAC

SYSTEM LOAD (%)

CORSAIR SF450 POWER SUPPLY FAN NOISE CURVE

FAN NOISE (db)

POWER OUTPUTS (WATTS)

CORSAIR SF450 DC CABLE LISTING

Qty	Description		Total Length
1	ATX Cable 24 pin 300mm	Connectors per cable / 1 / Total connectors / 1	300mm (± 10mm)
1	EPS/ATX12V 8 pin (4+4) cable 400mm	Connectors per cable / 1 / Total connectors / 1	400mm (± 10mm)
2	PCIe 8 pin (6+2) cable 400mm	Connectors per cable / 1 / Total connectors / 2	400mm (± 10mm)
1	SATA cable (4 SATA) 100mm 115mm 115mm 115mm	Connectors per cable / 4 / Total connectors / 4	445mm (± 10mm)
1	Peripheral cable (4-pin) 100mm 115mm 115mm	Connectors per cable / 3 / Total connectors / 3	330mm (± 10mm)

Installing your NEW SF Series

## Step A: Removing your existing power supply

If you are building a new system, skip to Step B.

1. Disconnect the AC power cord from your wall outlet or UPS and from the existing power supply.

2. Disconnect all the power cables from your video card, motherboard and all other peripherals.

3. Follow the directions in your chassis manual and uninstall your existing power supply.

4. Proceed to Step B.

Step B: Installing the CORSAIR SF Series power supply

1. Make sure the power supply's AC power cable is not connected.

2. Follow the directions in your chassis manual and install the power supply with the screws provided.

3. Connect the 24-pin main power cable from the power supply directly to your motherboard.

4. Connect the eight-pin +12V (EPS12V) cable to the motherboard.

    A. If your motherboard has an eight-pin +12V socket, connect the eight-pin cable directly to your motherboard.

    B. If your motherboard has a four-pin socket, detach the four-pin from the eight-pin cable, and then plug this four-pin cable directly to your motherboard.

5. Connect the peripheral cables, PCI-Express cables, and SATA cables.

    A. Connect the peripherals cables to your hard drive and CD-ROM/DVD-ROM power sockets.

    B. Connect the SATA cables to your SATA SSD or hard drive's power sockets.

    C. Connect the PCI-Express cables to the power sockets of your PCI-Express video cards if required.

    D. Connect the peripheral cables to any peripherals requiring a small 4-pin connector.

    E. Make sure all the cables are tightly connected. Be sure to save any unused modular cables for future component additions.

6. Connect the AC power cord to the power supply and turn it on by pushing the switch to the ON position (marked with "I").
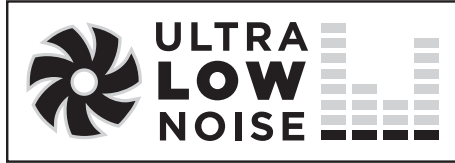
Zero RPM mode

Zero RPM mode allows the fan to remain off during low to medium loads. This technology uses various temperatures from inside the PSU and the power output level to determine when active cooling is needed for the PSU. When you're pushing it hard the fan will turn itself on to ensure that it gets the cooling it needs without any extra noise. For the specific fan profile of your unit please refer to the specifications section of that PSU.

Important safety information

CAUTION ELECTRIC SHOCK HAZARD!

1. Install in accordance with all manufacturer instructions and safety warnings. Failure to do so may result in damage to your power supply or system, and may cause serious injury or death.

2. High voltages are present in the power supply. Do not open the power supply case or attempt to repair the power supply; there are no user-serviceable components.

3. This product is designed for indoor use only.

4. Do not use the power supply near water, or in high temperature or high humidity environments.

5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

6. Do not insert any objects into the open ventilation or fan grill area of the power supply.

7. Do not modify the cables and/or connectors included with this power supply.

8. If this power supply uses modular cables, use only manufacturer supplied cables. Other cables might not be compatible and could cause serious damage to your system and power supply.

9. The 24-pin main power connector has a detachable 4-pin connector. This 4-pin connector is not a P4 or ATX 12V connector. Do not force this cable in the P4 or ATX +12V socket on the motherboard.

10. Failure to comply with any manufacturer instructions and/or any of these safety instructions will immediately void all warranties and guarantees.