RMx SERIES™

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CORSAIR

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CORSAIR

RMx SERIES™

RM1000x
RM850x
RM750x
RM650x
RM550x

HIGH PERFORMANCE ATX POWER SUPPLY

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

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Product Specifications

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

CORSAIR RMx Series enthusiast power supplies are optimized for silence, with a custom fan design and Zero RPM Fan Mode. 80 PLUS Gold rated efficiency ensures low-cost operation, and the fully modular black cables allow for fast, neat builds. All Japanese 105°C capacitors make it a great choice for high performance PCs where reliability is 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 ATX 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 RMx 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.

RM1000x

Dimensions: 150mm (W) x 86mm (H) x 180mm (L)

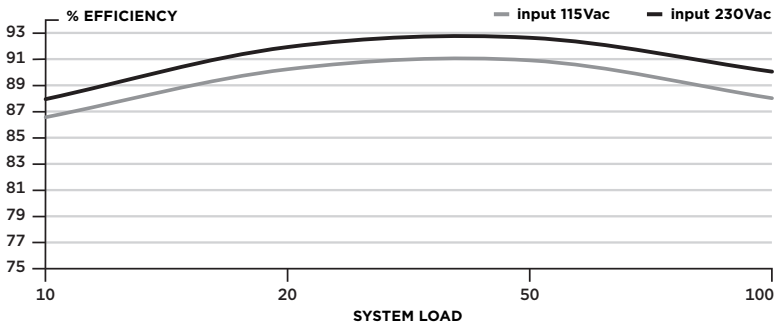
Package contents

- CORSAIR RMx Series power supply unit
- AC power cord
- DC Modular cable set
- DC Modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual

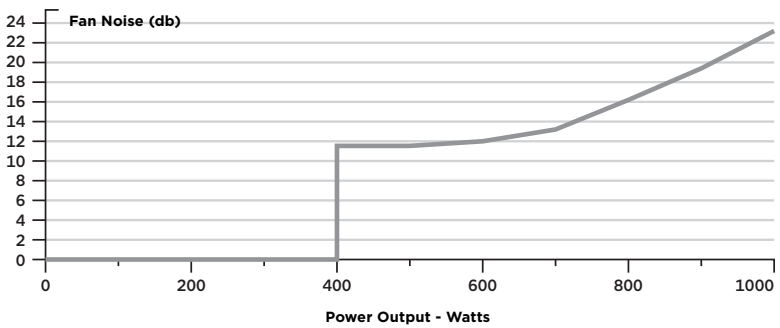
CORSAIR RM1000x power table

			Max Load	Max Output
Model	RPS0018	**+3.3V**	25A	150W
Part No.	CP-9020094	**+5V**	25A	
AC input Rating	100-240V	**+12V**	83.3A	1000W
Input Current	13A-6.5A	**-12V**	0.8A	9.6W
Frequency	47~63Hz	**+5Vsb**	3A	15W
Total Power: 1000W				

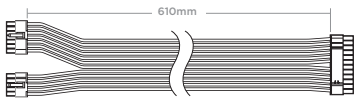
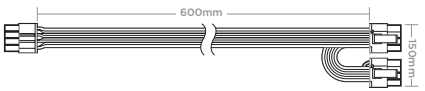
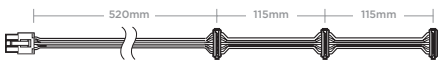
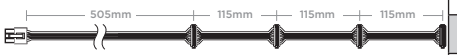
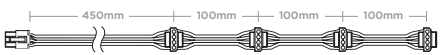
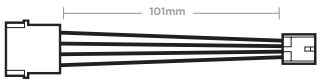
CORSAIR RM1000x power supply efficiency



CORSAIR RM1000x power supply fan noise curve



CORSAIR RM1000x DC cable listing

Qty	Description		Total Length
1	**ATX Cable 24 pin (20+4)** 	**Connectors Per Cable** 1 **Total Connectors** 1	610mm (± 10mm)
2	**EPS/ATX12V 8 pin (4+4) cable** 	**Connectors Per Cable** 1 **Total Connectors** 2	650mm (± 10mm)
4	**PCIe 8 pin (6+2) cable** 	**Connectors Per Cable** 2 **Total Connectors** 8	750mm (± 10mm)
1	**SATA cable (3 SATA)** 	**Connectors Per Cable** 3 **Total Connectors** 3	750mm (± 10mm)
2	**SATA cable (4 SATA)** 	**Connectors Per Cable** 4 **Total Connectors** 8	850mm (± 10mm)
3	**Peripheral cable (4-pin)** 	**Connectors Per Cable** 4 **Total Connectors** 12	750mm (± 10mm)
1	**Floppy adapter (4-pin)** 	**Connectors Per Cable** 1 **Total Connectors** 1	101mm (± 5mm)

RM850x

Dimensions: 150mm (W) x 86mm (H) x 160mm (L)

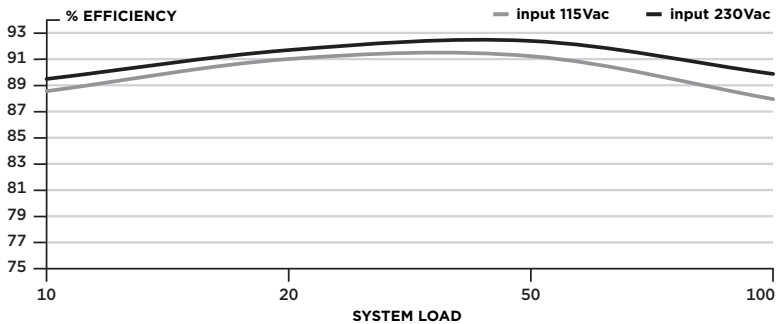
Package contents

- CORSAIR RMx Series power supply unit
- AC power cord
- DC Modular cable set
- DC Modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual

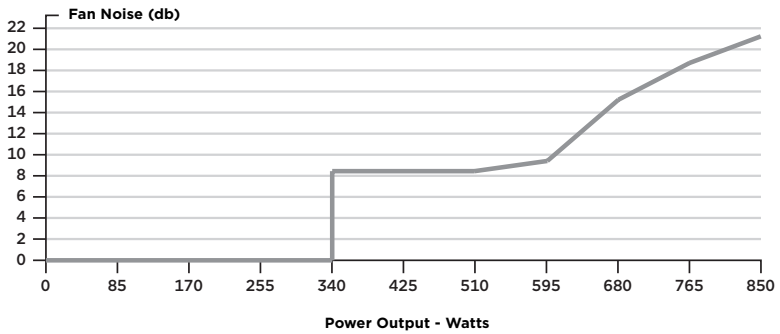
CORSAIR RM850x power table

			Max Load	Max Output
Model	RPS0110	**+3.3V**	25A	150W
Part No.	75-003445	**+5V**	25A	
AC Input Rating	100-240V	**+12V**	70.8A	850W
Input Current	12A-6A	**-12V**	0.8A	9.6W
Frequency	47~63Hz	**+5Vsb**	3A	15W
Total Power: 850W				

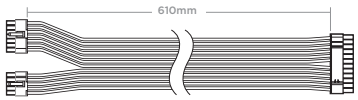
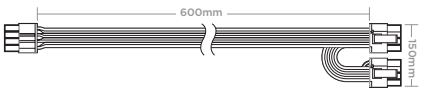
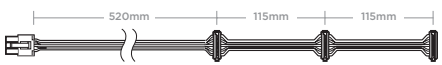
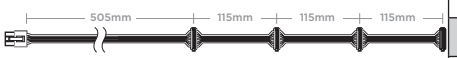
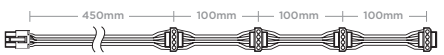
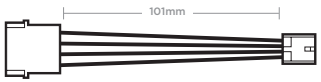
CORSAIR RM850x power supply efficiency



CORSAIR RM850x power supply fan noise curve



CORSAIR RM850x DC cable listing

Qty	Description		Total Length
1	**ATX Cable 24 pin (20+4)** 	**Connectors Per Cable** 1 **Total Connectors** 1	610mm (± 10mm)
2	**EPS/ATX12V 8 pin (4+4) cable** 	**Connectors Per Cable** 1 **Total Connectors** 2	650mm (± 10mm)
3	**PCIe 8 pin (6+2) cable** 	**Connectors Per Cable** 2 **Total Connectors** 6	750mm (± 10mm)
2	**SATA cable (3 SATA)** 	**Connectors Per Cable** 3 **Total Connectors** 6	750mm (± 10mm)
1	**SATA cable (4 SATA)** 	**Connectors Per Cable** 4 **Total Connectors** 4	850mm (± 10mm)
2	**Peripheral cable (4-pin)** 	**Connectors Per Cable** 4 **Total Connectors** 8	750mm (± 10mm)
1	**Floppy adapter (4-pin)** 	**Connectors Per Cable** 1 **Total Connectors** 1	101mm (± 5mm)

RM750x

Dimensions: 150mm (W) x 86mm (H) x 160mm (L)

Package contents

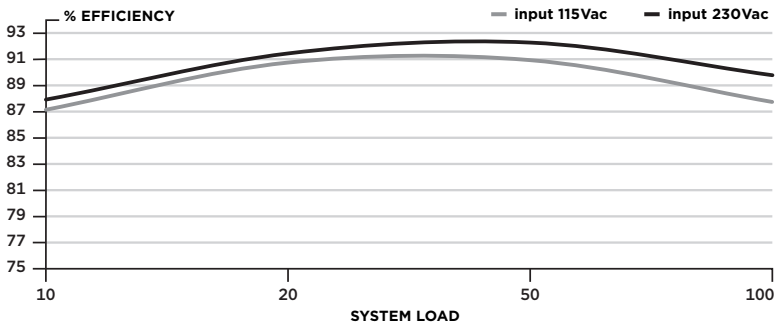
- CORSAIR RMx Series power supply unit
- AC power cord
- DC Modular cable set
- DC Modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual

CORSAIR RM750x power table

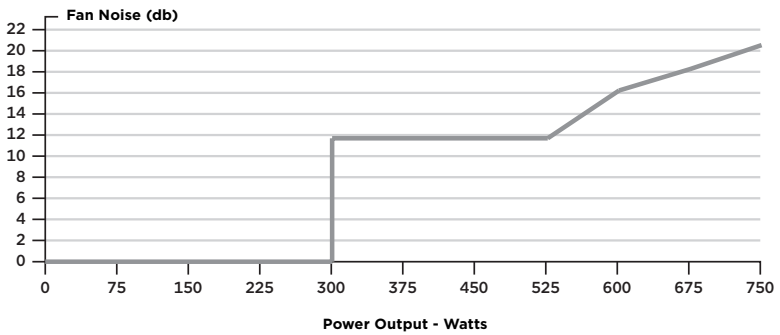
			Max Load	Max Output
Model	RPS0109	**+3.3V**	25A	150W
Part No.	75-003444	**+5V**	25A	
AC Input Rating	100-240V	**+12V**	62.5A	750W
Input Current	10A-5A	**-12V**	0.8A	9.6W
Frequency	47~63Hz	**+5Vsb**	3A	15W

Total Power: 750W

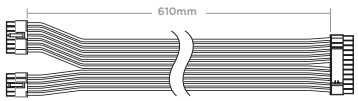
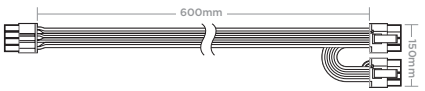
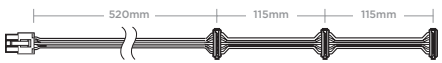
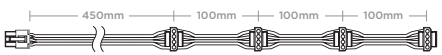
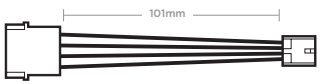
CORSAIR RM750x power supply efficiency



CORSAIR RM750x power supply fan noise curve



CORSAIR RM750x DC cable listing

Qty	Description		Total Length
1	**ATX Cable 24 pin (20+4)** 	**Connectors Per Cable** 1 **Total Connectors** 1	610mm (± 10mm)
2	**EPS/ATX12V 8 pin (4+4) cable** 	**Connectors Per Cable** 1 **Total Connectors** 2	650mm (± 10mm)
2	**PCIe 8 pin (6+2) cable** 	**Connectors Per Cable** 2 **Total Connectors** 4	750mm (± 10mm)
3	**SATA cable (3 SATA)** 	**Connectors Per Cable** 3 **Total Connectors** 9	750mm (± 10mm)
2	**Peripheral cable (4-pin)** 	**Connectors Per Cable** 4 **Total Connectors** 8	750mm (± 10mm)
1	**Floppy adapter (4-pin)** 	**Connectors Per Cable** 1 **Total Connectors** 1	101mm (± 5mm)

RM650x

Dimensions: 150mm (W) x 86mm (H) x 160mm (L)

Package contents

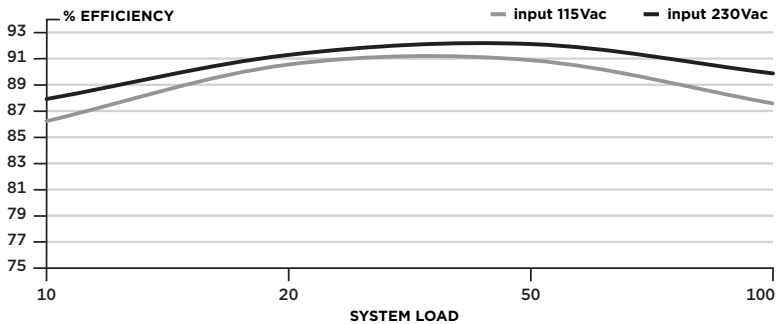
- CORSAIR RMx Series power supply unit
- AC power cord
- DC Modular cable set
- DC Modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual

CORSAIR RM650x power table

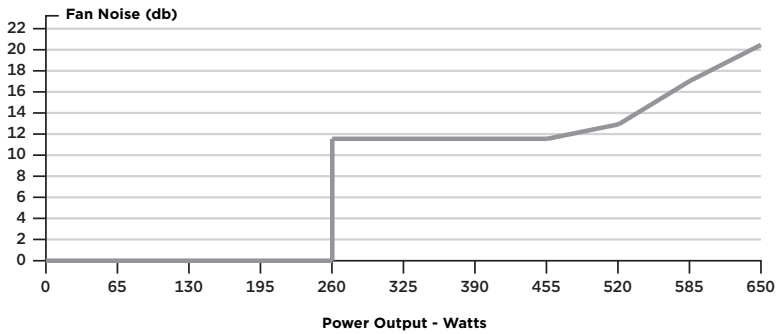
			Max Load	Max Output
Model	RPS0108	**+3.3V**	25A	130W
Part No.	75-003443	**+5V**	25A	
AC Input Rating	100-240V	**+12V**	54A	648W
Input Current	10A-5A	**-12V**	0.8A	9.6W
Frequency	47~63Hz	**+5Vsb**	3A	15W

Total Power: 650W

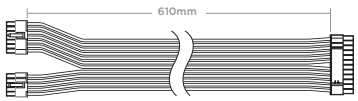
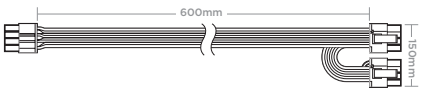
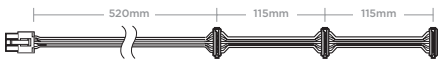
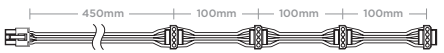
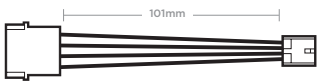
CORSAIR RM650x power supply efficiency



CORSAIR RM650x power supply fan noise curve



CORSAIR RM650x DC cable listing

Qty	Description		Total Length
1	**ATX Cable 24 pin (20+4)** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	610mm (± 10mm)
1	**EPS/ATX12V 8 pin (4+4) cable** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	650mm (± 10mm)
2	**PCIe 8 pin (6+2) cable** 	**Connectors Per Cable**: 2 **Total Connectors**: 4	750mm (± 10mm)
3	**SATA cable (3 SATA)** 	**Connectors Per Cable**: 3 **Total Connectors**: 9	750mm (± 10mm)
1	**Peripheral cable (4-pin)** 	**Connectors Per Cable**: 4 **Total Connectors**: 4	750mm (± 10mm)
1	**Floppy adapter (4-pin)** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	101mm (± 5mm)

RM550x

Dimensions: 150mm (W) x 86mm (H) x 160mm (L)

Package contents

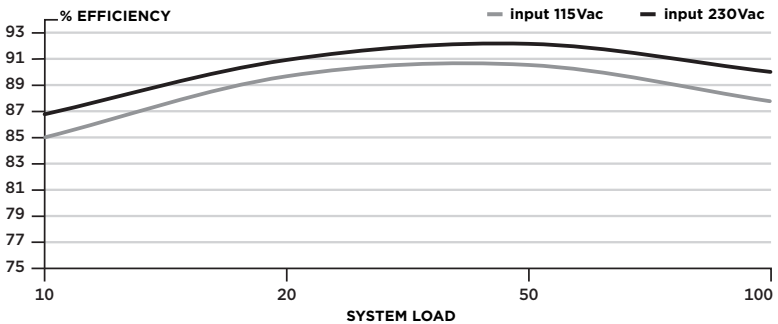
- CORSAIR RMx Series power supply unit
- AC power cord
- DC Modular cable set
- DC Modular cable storage bag
- Cable ties
- CORSAIR case badge
- User manual

CORSAIR RM550x power table

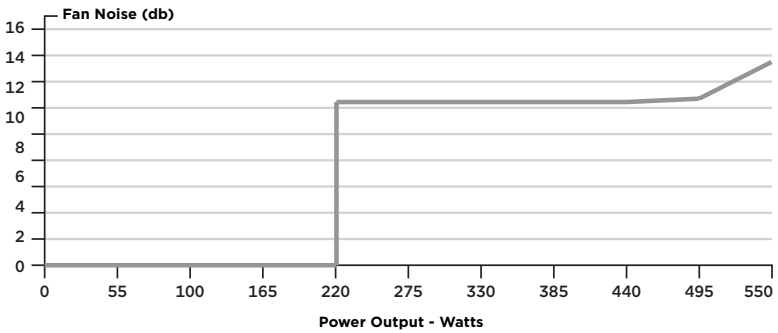
			Max Load	Max Output
Model	RPS0107	**+3.3V**	25A	130W
Part No.	75-003442	**+5V**	25A	
AC Input Rating	100-240V	**+12V**	45.8A	550W
Input Current	10A-5A	**-12V**	0.8A	9.6W
Frequency	47~63Hz	**+5Vsb**	3A	15W

Total Power: 550W

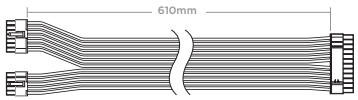
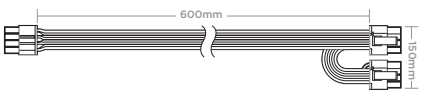
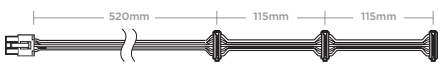
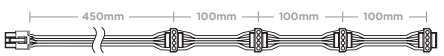
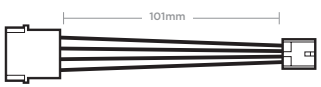
CORSAIR RM550x power supply efficiency



CORSAIR RM550x power supply fan noise curve



CORSAIR RM550x DC cable listing

Qty	Description		Total Length
1	**ATX Cable 24 pin (20+4)** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	610mm (± 10mm)
1	**EPS/ATX12V 8 pin (4+4) cable** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	650mm (± 10mm)
1	**PCIe 8 pin (6+2) cable** 	**Connectors Per Cable**: 2 **Total Connectors**: 2	750mm (± 10mm)
2	**SATA cable (3 SATA)** 	**Connectors Per Cable**: 3 **Total Connectors**: 6	750mm (± 10mm)
1	**Peripheral cable (4-pin)** 	**Connectors Per Cable**: 4 **Total Connectors**: 4	750mm (± 10mm)
1	**Floppy adapter (4-pin)** 	**Connectors Per Cable**: 1 **Total Connectors**: 1	101mm (± 5mm)

Installing your NEW RMx 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 RMx 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. The main 24-pin power cable has a detachable 4-pin mechanism in order to support either a 24-pin or a 20-pin socket on the motherboard.
   A. If your motherboard has a 24-pin socket, you may connect the 24-pin main power cable from the power supply directly to your motherboard.
   B. If your motherboard has a 20-pin socket, you must detach the four-pin cable from the 24-pin connector, and then plug the 20-pin cable onto your motherboard without connecting the four-pin connector.
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.

WARNING: The detachable four-pin from the 24-pin main connector is not a "P4" or "+12V" connector. Serious damage can be caused if you use it in place of a "P4" or "+12V" connector.

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").

ULTRA LOW NOISE

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.

Safety and agency approvals

Agency	Standard
FCC	FCC Rules Part 15, Class B
ICES	ICES-003
CE	EN 55022: 2010, Class B CISPR 22: 2008, Class B AS/NZS CISPR 22: 2009, Class B EN61000-3-2: 2006 + A1: 2009+A2: 2009, Class D EN61000-3-3: 2008 EN55024: 2010 IEC61000-4-2: 2008 ED.2.0 IEC61000-4-3: 2010 ED.3.2 IEC61000-4-4: 2012 ED.3.0 IEC61000-4-5: 2005 ED.2.0 IEC61000-4-6: 2008 ED.3.0 IEC61000-4-8: 2009 ED.2.0 IEC61000-4-11: 2004 ED.2.0
C TUV-US(American)	UL 60950-1: 2007
RCM	AS/NZS 4417,AS/NZS CISPR22
TUV	EN 60950-1: 2006+A11+A1+A12+A2
CB	IEC 60950-1: 2005+A1+A2
CCC	GB4943.1-2011 GB9254-2008 GB17625.1-2003 CNS13438
CU TR	R IEC 60950-1-2005 R 51318.22-99 R 51318.24-99 R 51317.3.2-2006 R 51317.3.3-99
ROHS	2002/95/EC, Restriction of Hazardous Substances Directive
WEEE	2002/96/EC, Waste Electrical and Electronic Equipment Directive
ROHS (China)	China Order No.39, Administration on the Control of Pollution Caused By Electronic Information Products
KC	K60950-1, K00022, K00024
BSMI	CNS14336, CNS13438