

## Raidmax RX-600AC

# RAIDMAX Vortex RX-600AC 600W Power Supply User Manual

Model: RX-600AC

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your RAIDMAX Vortex RX-600AC 600W Power Supply. Please read this manual thoroughly before installation and retain it for future reference. The RAIDMAX Vortex series power supply is designed to deliver stable and reliable power to your personal computer components.

## 2. SAFETY INFORMATION

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**WARNING: Improper installation or use can result in equipment damage, electric shock, or serious injury. Always follow these safety guidelines:**

- Ensure the power supply is disconnected from the AC power outlet before installation or maintenance.
- Do not open the power supply unit. High voltages are present inside, even when disconnected. There are no user-serviceable parts.
- Install the power supply in a well-ventilated area, away from heat sources, direct sunlight, and moisture.
- Use only the cables provided with the power supply.
- Ensure all connectors are securely attached to prevent loose connections and potential damage.
- This product is intended for use in personal computer systems only.

## 3. KEY FEATURES

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The RAIDMAX Vortex RX-600AC 600W Power Supply incorporates several features for optimal performance and reliability:

- **Powerful Single +12V Rail:** Ensures stable and reliable power delivery to PC components, supporting higher power usage.
- **80 PLUS Certified:** Achieves 80 PLUS certification for energy efficiency, reducing power consumption and heat generation.
- **Cosmic Black Coating:** Features a sleek black finish suitable for various PC chassis designs.
- **Multi-Core CPU Support:** Optimized for Dual-, Quad-, and Multi-Core CPUs.
- **Enhanced +12V Current Capability:** Broadens utilization possibilities for demanding components.
- **Multi-GPU Technologies Support:** Equipped with 6-pin and 8-pin PCIe connectors to support various GPU platforms.
- **120mm Silent Fan:** Features an automatically thermal-controlled 120mm black fan for efficient and quiet cooling.
- **Heavy-Duty Protections:** Includes Over Voltage Protection (OVP), Over Power Protection (OPP), and Short Circuit Protection (SCP) for system safety.
- **Universal AC Input with Active PFC:** Supports a wide range of AC inputs with Active Power Factor Correction (99%RF Typical).

# VORTEX SERIES



**KEY FEATURES**

- Powerful single +12V rail output helps ensure a stable and reliable supply to other PC components and also supports for higher power usage.
- 80 PLUS Certified for energy saving.
- Cosmic black coating design is a perfect match for any kind of PC chassis.
- Vortex series power supply is ideal for Dual-, Quad- and also Multi-Core CPUs.
- The enhanced +12V current capability broadens utilization possibilities.
- Designed with Multi-GPU technologies supported, which 6-pin and 8-pin PCIe connectors support all GPU platforms.
- Equipped with a 120mm black silent automatically thermal fan to help guarantee superior cooling performance.
- Heavy-duty protections, including OVP (Over Voltage Protection), OPP (Over Power Protection), SCP (Short Circuit Protection).
- Universal AC input by Active PFC (99%RF Typical).
- Dimension: 150 x 140 x 86mm



Image: Overview of RAIDMAX Vortex 600W Power Supply key features and design.

## 4. PACKAGE CONTENTS

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Verify that your package contains the following items:

- RAIDMAX Vortex RX-600AC 600W Power Supply Unit
- AC Power Cord
- Mounting Screws
- User Manual (this document)

## 5. SETUP AND INSTALLATION

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Follow these steps to install your RAIDMAX Vortex RX-600AC 600W Power Supply:

1. **Prepare Your System:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case.
2. **Remove Old PSU (if applicable):** Disconnect all cables from your old power supply. Unscrew and remove the old power supply from the case.
3. **Mount the New PSU:** Carefully place the RAIDMAX Vortex RX-600AC into the power supply bay of your computer case. Ensure the fan is oriented correctly (typically facing downwards if your case has a bottom vent, or upwards if it's a top-mounted PSU with no bottom vent). Secure the power supply with the provided mounting screws.
4. **Connect Motherboard Power:**
  - Connect the 24-pin ATX main power connector to the corresponding port on your motherboard. Ensure it clicks into place.
  - Connect the 4+4-pin EPS/CPU power connector to the CPU power port on your motherboard. This is often located near the CPU socket.
5. **Connect Graphics Card Power (PCI-E):** Connect the 6+2-pin PCI-E power connectors to your graphics card(s) if required. For high power consumption graphics cards (i.e., > 225 watts), use only a single connector per PCI-E cable. Avoid using a single cable with multiple connectors for a single high-power GPU if separate cables are available.
6. **Connect Peripheral Power:** Connect SATA power connectors to your storage drives (HDDs, SSDs) and optical drives. Use Molex connectors for any other peripherals that require them (e.g., case fans, older accessories).
7. **Cable Management:** Route cables neatly to improve airflow and aesthetics within your case. Use zip ties or Velcro straps if available.
8. **Close Case and Connect AC Power:** Once all connections are secure, close your computer case. Connect the provided AC power cord to the power supply and then to a wall outlet or surge protector.

## VORTEX SERIES

### ! PCI-E power connector recommendation:

For high power consumption graphics cards (i.e. > 225 watts), please use only single connector per PCI-E cable.

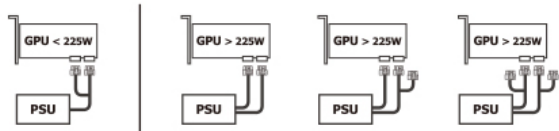


Image: PCI-E power connector recommendation for graphics cards, illustrating proper connection for GPUs under and over 225W.



## SPECIFICATIONS

Model No.	AC Input	DC Output Voltage					Total Power
		+3.3V	+5V	+12V	-12V	+5Vsb	
RX-600AC [V] Series	115-230VAC, 9.5A/4.5A, 47-63HZ	20A	20A	44A	0.3A	2.5A	600W
		100W		528W	3.6W	12.5W	
RX-800AC [V] Series	115-230VAC, 12A/6A, 47-63HZ	20A	20A	60A	0.3A	2.5A	800W
		100W		720W	3.6W	12.5W	

# VORTEX SERIES

Image: Rear view of the RAIDMAX Vortex 600W Power Supply, showing the AC input and power switch.

## 6. OPERATING INSTRUCTIONS

After successful installation, follow these steps to operate your power supply:

- Power On:** Ensure the power switch on the back of the power supply is in the 'ON' (I) position.
- System Start-up:** Press the power button on your computer case to start the system. The power supply will provide power to all connected components.
- Normal Operation:** The power supply will operate automatically, adjusting fan speed based on internal temperature to maintain optimal cooling.
- Power Off:** To shut down your system, use the operating system's shutdown procedure. For complete power disconnection, switch the power supply to the 'OFF' (O) position and unplug the AC power cord.

## 7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your power supply:

- Keep Vents Clear:** Ensure that the intake and exhaust vents of the power supply are not obstructed. Blocked vents can lead to overheating and reduced efficiency.

- **Dust Cleaning:** Periodically clean dust from the power supply's fan and vents using compressed air. Do this with the power supply disconnected from AC power and preferably removed from the PC case. Avoid using liquid cleaners.
- **Cable Inspection:** Occasionally inspect all power cables for any signs of damage, fraying, or loose connections. Replace damaged cables immediately.

# VORTEX SERIES

## KEY FEATURES

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- Vortex series power supply is ideal for Dual-, Quad- and also Multi-Core CPUs.
- The enhanced +12V current capability broadens utilization possibilities.
- Designed with Multi-GPU technologies supported, which 6-pin and 8-pin PCIe connectors support all GPU platforms.
- Equipped with a 120mm black silent automatically thermal fan to help guarantee superior cooling performance.
- Heavy-duty protections, including OVP (Over Voltage Protection), OPP (Over Power Protection), SCP (Short Circuit Protection).
- Universal AC input by Active PFC (99%RF Typical).
- Dimension: 150 x 140 x 86mm



**80 PLUS STANDARD SERIES**

Image: Top-down view of the RAIDMAX Vortex 600W Power Supply, highlighting the 120mm cooling fan.

## 8. TROUBLESHOOTING

If you encounter issues with your RAIDMAX Vortex RX-600AC power supply, refer to the following common problems and solutions:

- **No Power to System:**
  - Check if the AC power cord is securely plugged into both the power supply and the wall outlet.
  - Ensure the power switch on the back of the power supply is in the 'ON' (I) position.
  - Verify that the 24-pin ATX and 4+4-pin EPS/CPU power connectors are firmly seated on the

motherboard.

- Test the wall outlet with another device to ensure it is functional.

- **System Instability or Random Shutdowns:**

- Ensure all power connectors (motherboard, CPU, GPU, peripherals) are securely connected.
- Check for proper ventilation and ensure the power supply fan is spinning. Overheating can cause instability.
- Verify that your system's power requirements do not exceed the 600W capacity of the power supply.
- If using a surge protector or UPS, try connecting the power supply directly to a wall outlet to rule out external device issues.

- **Loud Fan Noise:**

- Check for dust accumulation on the fan blades or inside the power supply. Clean if necessary (with power disconnected).
- Ensure the power supply is not operating under excessive load, which can cause the fan to spin faster.

If issues persist after performing these checks, contact RAIDMAX customer support for further assistance.

## 9. SPECIFICATIONS

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Detailed specifications for the RAIDMAX Vortex RX-600AC 600W Power Supply:

Feature	Specification
Model Name	Vortex RX-600AC [V] Series
Output Wattage	600 Watts
Form Factor	ATX
Efficiency	80 PLUS Certified
Cooling Method	Air (120mm Fan)
Product Dimensions (L x W x H)	8 x 3 x 5 inches (150 x 140 x 86mm)
Item Weight	3.51 pounds (1.6 Kilograms)
Connector Type	ATX, EPS, PCI-E, SATA, Molex
AC Input (RX-600AC)	115-230VAC, 9.5A/4.5A, 47-63Hz

### DC Output Voltage (RX-600AC)

Model No.	AC Input	+3.3V	+5V	+12V	-12V	+5Vsb	Total Power
RX-600AC [V] Series	115-230VAC, 9.5A/4.5A, 47-63Hz	20A	20A	44A (528W)	0.3A (3.6W)	2.5A (12.5W)	600W

# VORTEX SERIES

## SPECIFICATIONS

Model No.	AC Input	DC Output Voltage					Total Power
		+3.3V	+5V	+12V	-12V	+5Vsb	
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		100W		528W	3.6W	12.5W	
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		100W		720W	3.6W	12.5W	



Image: Detailed specifications table for RAIDMAX Vortex series power supplies, including AC input and DC output voltages.

## 10. WARRANTY AND SUPPORT

RAIDMAX products are manufactured to the highest quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official RAIDMAX website. If you require technical support or have questions regarding your RAIDMAX Vortex RX-600AC power supply, please contact RAIDMAX customer service through their official website or the contact information provided in your product packaging.