

Apevia SPIRIT600W

Apevia SPIRIT600W Spirit 600W ATX Power Supply User Manual

Model: SPIRIT600W | Brand: Apevia

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Apevia SPIRIT600W Spirit 600W ATX Power Supply. Designed for gaming and general computing, this power supply offers reliable power delivery with essential protections for your system.

2. PRODUCT OVERVIEW

The Apevia SPIRIT600W is a 600W ATX power supply featuring a black sandblasted casing and an auto-thermally controlled 120mm fan for efficient cooling. It supports Dual/Quad/Multi-core CPUs and provides a single 12V output for higher power usage. This unit is equipped with heavy-duty protections including Short-Circuit, Over-Current, Over-Voltage, Over-Power, Under-Voltage, and Over-Temperature Protections to ensure system stability and safety.



Figure 2.1: Top-down view of the Apevia SPIRIT600W Power Supply, showcasing the 120mm fan with a protective grill.



Figure 2.2: Side view of the power supply, highlighting the ventilation grilles and compact design.



Figure 2.3: Rear view of the power supply, showing the power input, voltage switch, and main power switch.



Figure 2.4: Detailed view of the specification label on the power supply, indicating input/output voltages and currents.



Figure 2.5: The power supply with its permanently attached, bundled cables, ready for installation.

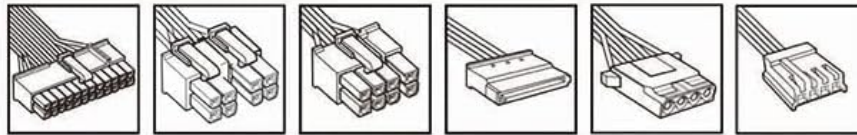


Figure 2.6: Contents of the package, including the power supply unit, AC power cord, and mounting screws.

APEVIA

Spirit Power Series

SPIRIT600W



20+4P×1

12V 4+4P×1

6+2P×2

SATA×4

4PIN×4

FDD×1

20+4 PIN Exposed (500mm)*1

12V 4+4PIN Exposed (500mm)*1

PATA Exposed (400mm)+PATA(150mm)+SATA(150mm)+SATA(150mm)+FDD(150mm)*1

SATA Exposed (400mm)+SATA(150mm)+PATA(150mm)+PATA(150mm)*1

PCIe 6+2PIN Exposed (500mm)*1

Total : (20+4P*1, 4+4P*1, PCIe 6+2P*2, PATA*4, SATA*4, FDD*1)

20+4 main power, 6+2 PCI-E, and 4+4 CPU connectors have slide up function for the extra pins (if needed)

AC Input	115-230VAC, 8A/4A, 50-60HZ				
DC Output Voltage	+3.3V	+5V	+12V	-12V	+5Vsb
Max Output Current	16A	20A	45A	0.5A	2.5A
Combined Power	120W		540W	6W	12.5W
Total Power	600W				

Figure 2.7: Diagram illustrating the various connector types and their quantities, along with a detailed power output table.

3. SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your power supply. Follow these steps carefully:

- Preparation:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case to access the power supply bay.
- Remove Old Power Supply (if applicable):** Disconnect all cables from your old power supply to the motherboard, graphics card, and other components. Unscrew and remove the old power supply from the case.
- Install New Power Supply:** Carefully slide the Apevia SPIRIT600W into the power supply bay. Secure it with the provided screws.
- Connect Main Power:** Connect the 20/24-pin Main Power connector to your motherboard. Note that the 24-pin motherboard connector can be split into a 20+4 configuration for compatibility with older motherboards.
- Connect CPU Power:** Connect the 4+4-pin 12V CPU connector to your motherboard. This 8-pin connector can be split into two 4-pin connectors if your motherboard requires only a 4-pin power connector.
- Connect PCI-E Power:** For graphics cards requiring additional power, connect the 6+2-pin PCI-E connectors. The 8-pin PCI-E GPU connector can be split into a 6-pin and a 2-pin connector to accommodate graphics cards that require a 6-pin power connector.

7. **Connect SATA and Peripheral Devices:** Connect the 4 SATA power connectors to your storage drives (SSDs, HDDs) and optical drives. Use the 4 Peripheral (Molex) connectors for other components like case fans or older peripherals.
8. **Secure Cables:** Route and secure all cables to ensure proper airflow within your PC case.
9. **Final Check:** Double-check all connections to ensure they are firmly seated. Close your computer case.
10. **Power On:** Connect the power cord to the power supply and then to a wall outlet. Ensure the power switch on the back of the power supply is in the 'On' position. The power supply will not power on simply by connecting the power cord to both the power supply and wall outlet; all internal PC power supply cables must be properly connected for the PC to power on.

Important Safety Note:

Always ensure your computer is completely disconnected from the power source before installing or removing any components.

4. OPERATING INSTRUCTIONS

Once installed, the Apevia SPIRIT600W operates automatically. The auto-thermally controlled 120mm fan adjusts its speed based on the power supply's temperature, ensuring optimal cooling while minimizing noise. No user intervention is required for fan speed control.

The power supply is designed to provide stable and consistent power to your computer components. It features a 115/230V switch on the rear. Ensure this switch is set to the correct voltage for your region before connecting the power supply to the wall outlet.

5. MAINTENANCE

The Apevia SPIRIT600W is designed for minimal maintenance. To ensure optimal performance and longevity:

- **Dust Removal:** Periodically clean dust from the power supply's fan and ventilation grilles using compressed air. Ensure the computer is powered off and unplugged before cleaning.
- **Airflow:** Ensure adequate airflow around the power supply within your computer case. Avoid blocking ventilation openings.
- **Cable Management:** Proper cable management helps maintain good airflow and prevents cables from interfering with the fan.

6. TROUBLESHOOTING

If you encounter issues with your Apevia SPIRIT600W power supply, consider the following common troubleshooting steps:

- **No Power:**
 - Ensure the power cord is securely connected to both the power supply and the wall outlet.
 - Verify that the power switch on the back of the power supply is in the 'On' position.
 - Confirm that all internal power supply cables (20/24-pin Main, 4+4-pin CPU, PCI-E, SATA, Peripheral) are correctly and firmly connected to their respective components. The power supply will not power on if these connections are not properly made.
 - Check the 115/230V switch on the back of the power supply. Ensure it is set to the correct voltage for your region. Incorrect voltage setting can prevent the unit from powering on or cause damage.
 - Test the wall outlet with another device to ensure it is supplying power.

• **System Instability/Random Shutdowns:**

- This power supply includes built-in protections (Short-Circuit, Over-Current, Over-Voltage, Over-Power, Under-Voltage, Over-Temperature). If these protections are triggered, the power supply may shut down to prevent damage. This could indicate an issue with a component drawing too much power or a fault within the power supply itself.
- Ensure your system's power requirements do not exceed the 600W capacity of the power supply.
- Check for proper ventilation within your PC case to prevent overheating.

• **Fan Noise:**

- The fan is auto-thermally controlled, meaning its speed will increase under higher loads or temperatures. If the noise is excessive and constant, ensure the fan is not obstructed by cables or dust.

If these steps do not resolve the issue, contact Apevia customer support for further assistance.

7. SPECIFICATIONS

Feature	Detail
Brand	Apevia
Model Name	SPIRIT600W
Form Factor	ATX
Wattage	600 Watts
Output Wattage	600 Watts
Cooling Method	Air (Auto-Thermally Controlled 120mm Fan)
Power Supply Design	Non-Modular
Connectors	1 x 20/24pin Main Power, 1 x 4+4pin 12V, 2 x PCI 6+2pin, 4 x SATA, 4 x Peripheral
Output (+3.3V)	16A
Output (+5V)	20A
Output (+12V)	45A
Output (-12V)	0.5A
Output (+5VSB)	2.5A
Combined Power (+3.3V & +5V)	120W
Combined Power (+12V)	540W
Combined Power (-12V)	6W
Combined Power (+5VSB)	12.5W
Total Power	600W

Feature	Detail
Protections	Short-Circuit, Over-Current, Over-Voltage, Over-Power, Under-Voltage, Over-Temperature
Product Dimensions (L x W x H)	6.3 x 5.91 x 3.35 inches
Item Weight	3.67 pounds
Manufacturer	Apevia Corp
Country of Origin	USA
Compatible Devices	Personal Computer

8. WARRANTY AND SUPPORT

Apevia products are designed for reliability and performance. For warranty information and technical support, please refer to the official Apevia website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

For additional resources and frequently asked questions, visit the [Apevia Store on Amazon](#).

9. OFFICIAL PRODUCT VIDEOS

There are no official product videos from the seller available for this product at this time.