Apevia VENUS450W

APEVIA VENUS450W Power Supply User Manual

Model: VENUS450W

1. Introduction

This user manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your APEVIA VENUS450W ATX Power Supply. Designed for personal computers, this 450W power supply features an auto-thermally controlled 120mm fan and includes multiple protection mechanisms to ensure stable and reliable power delivery to your system components.

2. Safety Information

Please read all safety warnings and instructions carefully before installing or operating the power supply unit. Failure to comply may result in damage to the unit, other components, or personal injury.

- Do not overload, abuse, or modify the power supply unit. Any unauthorized modifications will void the warranty and may pose a safety risk.
- Ensure the power supply unit is properly grounded.
- Do not operate the unit in wet or damp conditions.
- Keep the unit away from heat sources and direct sunlight.
- Always disconnect the power cord from the wall outlet before performing any installation, maintenance, or troubleshooting.
- The use of this unit for Bitcoin mining or similar intensive, continuous load applications is not suggested as it will shorten the life and may cause failures of the power supply. Use for mining purposes is not covered by the product warranty.

3. Product Overview

3.1 Components

The APEVIA VENUS450W Power Supply includes the following main components:

- APEVIA VENUS450W ATX Power Supply Unit
- AC Power Cord
- Mounting Screws
- Integrated Power Cables (20/24pin Main Power, 12V (4+4pin) CPU, SATA, Molex, Floppy)

3.2 Product Features

- 450W ATX Power Supply
- Auto-Thermally Controlled 120mm Black Fan for efficient cooling and quiet operation.
- 115/230V Switch for voltage selection.
- 5% Tolerance on +5V, +3.3V, and +12V outputs for stable power.
- Comprehensive Protections: Short-Circuit Protection (SCP), Over-Current Protection (OCP), Over-Voltage Protection (OVP), Over-Power Protection (OPP), Under-Voltage Protection (UVP), Over-Temperature Protection (OTP).

3.3 Visual Reference

Figure 3.1: Front and top view of the APEVIA VENUS450W Power Supply, highlighting the 120mm fan and ventilation.

Figure 3.2: Rear view of the power supply, showing the power input, voltage switch, and main power switch.

Figure 3.3: The power supply unit with all integrated cables bundled, ready for installation.

Figure 3.4: Top view of the power supply, displaying the product label with electrical specifications.

Figure 3.5: Included accessories: AC power cord and mounting screws.

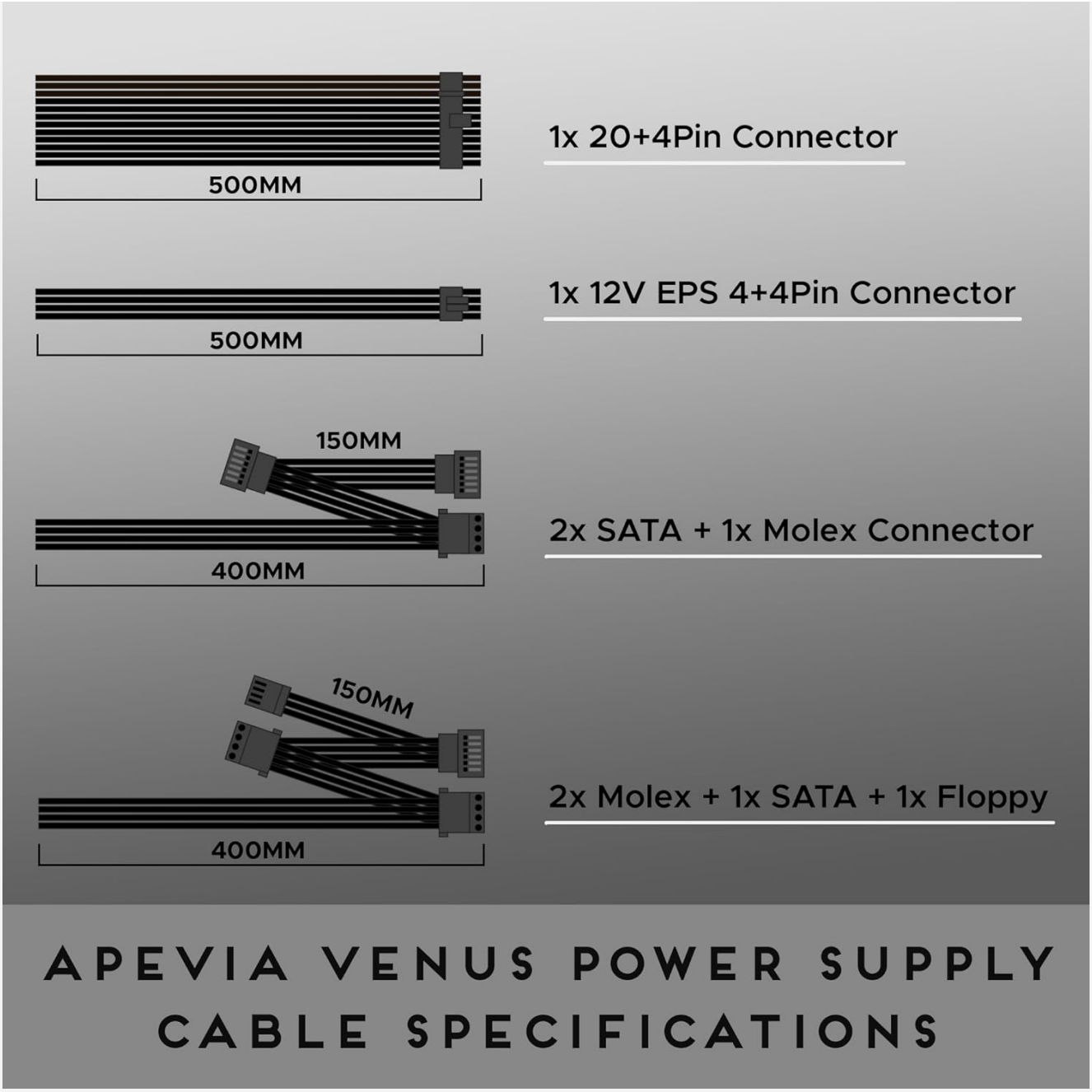


Figure 3.6: Diagram illustrating the types and lengths of connectors included with the power supply.

4. Setup and Installation

4.1 Before Installation

- Ensure your computer case supports ATX power supplies.
- Verify that the power supply's wattage (450W) is sufficient for all your system components.
- Unplug your computer from the wall outlet and discharge any residual power by holding the power button for a few seconds.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to prevent electrostatic discharge (ESD).

4.2 Installation Steps

1. **Mount the Power Supply:** Carefully slide the power supply into the designated bay in your computer case. Secure it with the provided mounting screws.
2. **Connect Main Power:** Connect the 20/24pin Main Power connector to your motherboard. If your motherboard

requires a 20pin connector, the 24pin connector can be split by pushing one end of the 20pin down and the other end of the 4pin up.

3. **Connect CPU Power:** Connect the 12V (4+4pin) CPU connector to your motherboard. If your motherboard requires a 4pin power connector, the 8pin CPU connector can be split apart by pushing one end of the 4pin down and the other end of the 4pin up.
4. **Connect SATA Devices:** Connect the SATA power connectors to your SATA hard drives, SSDs, and optical drives.
5. **Connect Peripheral Devices:** Use the Molex connectors for older peripheral devices or case fans. The floppy connector is available for legacy devices.
6. **Manage Cables:** Route cables neatly to improve airflow and aesthetics within your case.
7. **Set Voltage Switch:** Ensure the 115/230V switch on the back of the power supply is set to the correct voltage for your region (115V for North America, 230V for Europe and other regions).
8. **Final Check:** Double-check all connections to ensure they are secure and correctly seated.

5. Operating Instructions

After successful installation and verification of all connections, you can power on your system:

1. Connect the AC power cord to the power supply unit and then to a wall outlet.
2. Flip the main power switch on the back of the power supply to the 'ON' (I) position.
3. Press the power button on your computer case to start the system.

The auto-thermally controlled 120mm fan will adjust its speed based on the internal temperature of the power supply, ensuring optimal cooling and minimizing noise.

6. Maintenance

To ensure the longevity and optimal performance of your APEVIA VENUS450W Power Supply, follow these maintenance guidelines:

- **Keep it Clean:** Regularly clean the exterior of the power supply and the fan grille to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air to gently clear dust from the fan and internal components (ensure the unit is unplugged and discharged before cleaning).
- **Ensure Proper Ventilation:** Make sure your computer case has adequate airflow and that the power supply's fan is not obstructed.
- **Avoid Overloading:** Do not exceed the rated wattage of the power supply. Overloading can lead to instability and premature failure.
- **Check Connections:** Periodically check that all power cables are securely connected to their respective components.

7. Troubleshooting

If you encounter issues with your APEVIA VENUS450W Power Supply, refer to the following troubleshooting steps:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Power supply does not turn on.	Power switch is off, cables are not properly connected, or incorrect voltage setting.	Ensure the main power switch on the back of the PSU is in the 'ON' (I) position. Verify that all power supply cables (20/24pin Main, 4+4pin CPU, SATA, Molex) are properly and securely connected to the PC components. The power supply will not power on simply by connecting the power cord to both the power supply and wall outlet without being connected to a PC. Check the 115/230V switch on the back of the PSU is set to the correct local voltage. Test the wall outlet with another device to ensure it has power.
System instability or random shutdowns.	Insufficient wattage, overheating, or faulty components.	Ensure your system's power requirements do not exceed 450W. Check for proper ventilation within the PC case and ensure the PSU fan is not obstructed. If issues persist, consider testing components individually or consulting a professional.
Fan is not spinning or is excessively loud.	Dust buildup, fan obstruction, or fan malfunction.	Clean any dust from the fan and grille. Ensure no cables or objects are obstructing the fan blades. The fan is auto-thermally controlled; it may not spin at low loads. If it never spins under load, it may be faulty.

8. Specifications

Feature	Detail
Model Name	VENUS450W
Form Factor	ATX
Output Wattage	450 Watts
Cooling Method	Air (120mm Auto-Thermally Controlled Fan)
Input Voltage	115/230V Switchable
Main Power Connector	1 x 20/24pin
CPU Power Connector	1 x 12V (4+4pin)
SATA Connectors	3
Molex (Peripheral) Connectors	3
Floppy Connector	1
Max. Output Current +3.3V	16A
Max. Output Current +5V	16A
Max. Output Current +12V	36A

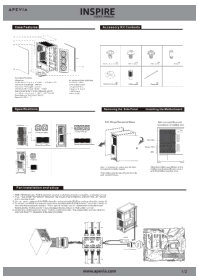
Feature	Detail
Max. Output Current -12V	0.3A
Max. Output Current +5Vsb	2.5A
Product Dimensions (LxWxH)	5.9 x 5.5 x 3.4 inches
Item Weight	2.6 pounds (1.18 Kilograms)

9. Warranty and Support

APEVIA products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the warranty information provided with your purchase or visit the official Apevia website. Please note that the use of this unit for Bitcoin mining or similar intensive, continuous load applications is not covered by the product warranty.

For technical support, troubleshooting assistance, or warranty claims, please contact Apevia customer service through their official channels. You can typically find contact information on the product packaging or the manufacturer's website.

Related Documents - VENUS450W

	APEVIA INSPIRE User Manual: Features, Specifications, and Setup Guide Comprehensive user manual for the APEVIA INSPIRE PC case, detailing case features, technical specifications, accessory kit contents, side panel removal, motherboard installation, and fan/RGB setup instructions.