FSP 250-50GUB

FSP 250-50GUB Flex ATX Power Supply 250W Instruction Manual

Model: 250-50GUB | Brand: FSP

1. Introduction

This manual provides essential information for the safe and efficient use of your FSP 250-50GUB Flex ATX Power Supply. This power supply delivers a true 250 watts of continuous power and is designed for compact systems, such as mini-ITX applications. It features an 80 PLUS® Bronze certification for energy efficiency and includes comprehensive protection mechanisms to safeguard your system components.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the power supply and connected components:

- **Do not open the power supply unit.** High voltages are present inside, even when disconnected from power.
- Ensure the power supply is disconnected from the AC outlet before installation or maintenance.
- Install the power supply in a well-ventilated area to prevent overheating.
- Use only the cables provided with the power supply or compatible replacements.
- Avoid exposing the power supply to moisture or extreme temperatures.
- This power supply complies with newer IEC 62368 Standards and includes OVP (Over Voltage Protection), UVP (Under Voltage Protection), OPP (Over Power Protection), SCP (Short Circuit Protection), and OTP (Over Temperature Protection) for hardware safety.

3. Product Overview

The FSP 250-50GUB is a Flex ATX power supply designed for reliability and efficiency in small form factor systems. Key features include:

- **250W True Power:** Provides stable and continuous power output.
- **80 PLUS Bronze Certified:** Ensures high energy efficiency, meeting Energy Star Version 6.1

requirements.

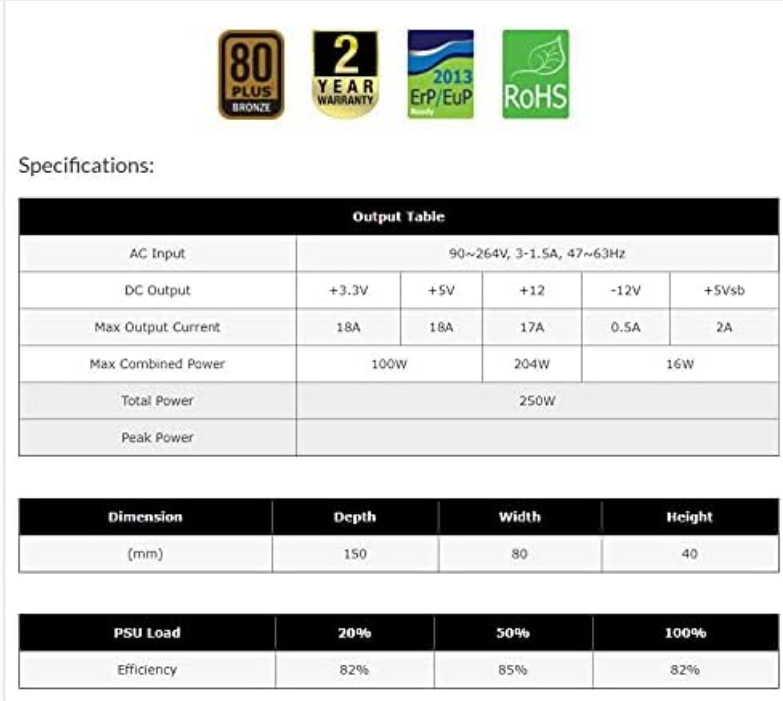
- **Quiet Fan:** Equipped with a 4x4 cm double ball bearing fan for extended life and reduced noise levels.
- **Full Range PFC Active:** Active Power Factor Correction for stable power delivery.
- **Comprehensive Protection:** Includes OVP, UVP, OCP, OPP, and SCP for system safety.

Figure 1: Front view of the FSP 250-50GUB Flex ATX Power Supply, showing the power input and ventilation grille.

Figure 2: Rear view of the FSP 250-50GUB Flex ATX Power Supply, illustrating the fan and cable bundle exit point.

4. Specifications

Specification	Value
Product Dimensions (L x W x H)	5.91 x 3.15 x 1.57 inches (150 x 80 x 40 mm)
Item Weight	1.61 pounds
Form Factor	Flex ATX
Output Wattage	250 Watts
Efficiency Certification	80 Plus Bronze (115V)
Cooling Method	Air (1 fan)
Connector Type	ATX
Compatible Devices	Personal Computer
Protection Features	OVP, UVP, OCP, OPP, SCP



Specifications:

Output Table					
AC Input	90~264V, 3-1.5A, 47~63Hz				
DC Output	+3.3V	+5V	+12	-12V	+5Vsb
Max Output Current	18A	18A	17A	0.5A	2A
Max Combined Power	100W		204W	16W	
Total Power	250W				
Peak Power					

Dimension	Depth	Width	Height
(mm)	150	80	40

PSU Load	20%	50%	100%
Efficiency	82%	85%	82%

Figure 3: Detailed output table and physical dimensions of the FSP Flex ATX Power Supply.

5. Installation and Setup

Follow these general steps for installing your Flex ATX power supply:

1. **Prepare Your System:** Ensure your computer is powered off and unplugged from the wall outlet. Open your computer case.
2. **Remove Old PSU (if applicable):** Disconnect all cables from the old power supply and remove its mounting screws. Carefully take out the old unit.
3. **Install New PSU:** Insert the FSP 250-50GUB into the Flex ATX power supply bay of your chassis. Secure it with the appropriate screws. This unit is designed to fit into most Flex ATX chassis available.
4. **Connect Cables:** Connect the power supply cables to your motherboard and other components. Refer to your motherboard and component manuals for specific connection points.
    - **Motherboard:** Connect the 24-pin ATX connector and the 4-pin or 4+4-pin CPU connector.
    - **Peripherals:** Connect SATA power connectors to storage drives and Molex connectors to other compatible devices.
    - **Graphics Cards:** If your system requires it, connect the appropriate PCI-E power connectors.
5. **Secure Cables:** Route and secure cables to ensure proper airflow and prevent interference with other components.
6. **Close Case:** Once all connections are made and secured, close your computer case.
7. **Power On:** Plug the AC power cord into the power supply and then into a wall outlet. Turn on your computer.

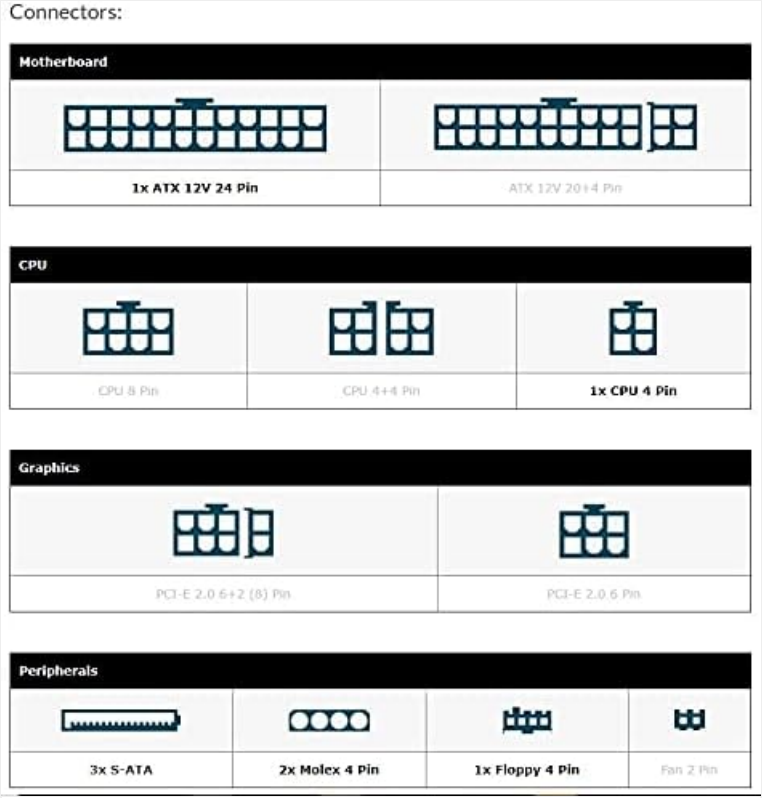


Figure 4: Illustration of various connector types provided by the FSP Flex ATX Power Supply, including 24-pin ATX, 8-pin CPU, 4+4-pin CPU, PCI-E 2+6, SATA, Molex, and Floppy connectors.

Video 1: This video demonstrates general features and installation concepts for FSP Flex ATX power supplies, including 1U bracket installation, Flex ATX chassis compatibility, efficiency, safety protections, and cable types. While the video specifically references a 'FlexGURU PRO 500W' model, the principles shown are broadly applicable to the FSP 250-50GUB Flex ATX Power Supply.

6. Operating Instructions

The FSP 250-50GUB power supply operates automatically once correctly installed and connected. Ensure the power switch on the back of the unit (if present) is in the 'ON' position before powering on your computer. The power supply will deliver stable power to your components as needed.

7. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your power supply:

- **Dust Removal:** Periodically clean dust from the power supply's fan and ventilation grilles using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Cable Management:** Ensure cables are neatly routed and do not obstruct airflow within the chassis.
- **Environmental Conditions:** Operate the power supply within recommended temperature and humidity ranges.

8. Troubleshooting

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

- **No Power:**
  - Check if the AC power cord is securely connected to both the power supply and the wall outlet.
  - Verify that the power switch on the power supply is in the 'ON' position.

- Test the wall outlet with another device to ensure it has power.

- **System Instability/Random Shutdowns:**
  - Ensure all power connectors (24-pin ATX, CPU, PCI-E, SATA) are firmly seated.
  - Check for proper ventilation and ensure the power supply fan is spinning. Overheating can cause instability.
  - If possible, test the power supply with a different set of components or in another system to rule out other hardware issues.

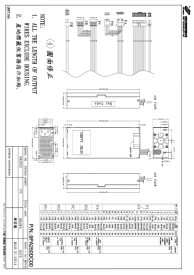
- **Loud Fan Noise:**
  - Clean any dust buildup from the fan and grilles.
  - Ensure the power supply is not overloaded, which can cause the fan to spin faster.

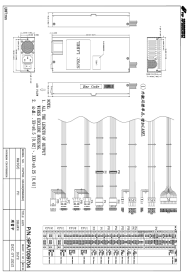
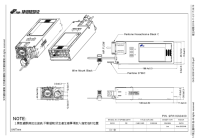
If problems persist after attempting these steps, contact FSP customer support or a qualified technician.

9. Warranty and Support

FSP products are manufactured to high-quality standards. For warranty information and technical support, please refer to the official FSP website or contact your local retailer. Keep your purchase receipt as proof of purchase for warranty claims.

Related Documents - 250-50GUB

	FSP PMP250 Series 220-250W Medical Power Supplies Datasheet Datasheet detailing the FSP PMP250 Series of AC/DC switching power supplies, designed for medical applications. These units offer 220-250W continuous output power, wide input range (80-264 VAC), high efficiency (up to 90%), and meet stringent medical safety and EMC standards.
	FSP 9PA250DC00 Mechanical Drawing and Pinout Specifications Detailed mechanical drawing and pinout specifications for the FSP 9PA250DC00 power supply unit, including wire assignments, dimensions, and model information from FSP Group.
	FSP Power Supply Manual: Installation, Connectors, Warranty, and Troubleshooting This comprehensive manual from FSP provides detailed instructions for installing and connecting your power supply unit (PSU), explains connector pinouts, outlines the warranty policy, offers troubleshooting guidance, and covers WEEE and RoHS compliance information.

	[FSP100-50FAB Power Supply Appearance and Wiring Diagram] Technical specifications and assembly details for the FSP100-50FAB power supply unit by FSP Technology Inc. Includes detailed wiring information, connector pinouts, wire colors, gauge, lengths, and dimensional data.
	[FSP700-50UEB Power Supply Assembly and Wiring Diagram] Detailed assembly and wiring diagram for the FSP700-50UEB power supply unit, including physical dimensions, connector pinouts, wire specifications, and manufacturing details from FSP TECHNOLOGY INC. This document outlines the internal wiring harness and component connections.
	[FSP1600-20FH Power Supply Outline and Specifications] Technical outline and dimensional specifications for the FSP1600-20FH power supply unit from FSP Technology Inc., including key measurements and notes.