

MEISHILE S-150-30

MEISHILE S-150-30 30V 5A 150W Switching Power Supply User Manual

Model: S-150-30

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your MEISHILE S-150-30 Switching Power Supply. This device is designed to convert AC input voltage to a stable DC output, suitable for various industrial and LED applications. Please read this manual thoroughly before installation and use.

2. IMPORTANT SAFETY INFORMATION

Failure to follow these safety instructions may result in electric shock, fire, or damage to the product. Always prioritize safety during installation and operation.

- **Electric Shock Hazard:** Do not open the power supply cover. Only qualified electricians should perform maintenance or repairs to prevent electric shock.
- **Indoor Use Only:** This power supply is not waterproof. Use it exclusively in dry, indoor environments to prevent damage and ensure safety.
- **Ventilation:** Avoid using the power supply in high-temperature environments. Ensure adequate ventilation and heat dissipation space around the unit to prevent overheating.
- **Load Capacity:** While the switching power supply is rated for 100% full power, wiring can consume a portion of the power. For optimal performance and longevity, it is recommended to operate the unit at 80% to 90% of its rated power to avoid overload.

3. PRODUCT OVERVIEW

The MEISHILE S-150-30 is a compact and efficient switching power supply. It features a robust metal casing with ventilation holes for heat dissipation and clearly labeled input/output terminals.



Figure 3.1: Top view of the power supply, highlighting the ventilation grid and the 110V/220V input voltage selector switch.



Figure 3.2: Side view displaying the terminal block for input (L, N, Ground) and output (+V, -V) connections.



Figure 3.3: Angled view of the power supply, showing its compact form factor.

4. TECHNICAL SPECIFICATIONS

Parameter	Value
Model Number	S-150-30
DC Output Voltage	30V
DC Output Current	0-5A
Rated Power	150W
Input Voltage Range	110/220V AC $\pm 15\%$ (95-126V / 185-250V)
Output Voltage Regulation	$\pm 3\%$
Frequency	50-60Hz
Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$ (0-50 $^{\circ}\text{C}$)
Start, Rise, Hold Time	200ms, 50ms, 20ms
Protection Features	Overload, Short Circuit, Overvoltage Protection
Operating Temperature & Humidity	-10 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$, 20% to 90% RH
Storage Temperature & Humidity	-20 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$, 10% to 95% RH
Product Dimensions (L x W x H)	159 x 99 x 50 mm (6.26 x 3.90 x 1.97 inches)
Product Weight	0.5 kg (1.1 lbs)
Certifications	FCC, CE

5. SETUP AND INSTALLATION

Before connecting the power supply, ensure all power is disconnected from the mains. Installation should be performed by a qualified professional.

- Mounting:** Securely mount the power supply in a well-ventilated area, ensuring sufficient clearance for airflow around the unit.
- Input Voltage Selection:** Locate the voltage selector switch on the side of the unit (refer to Figure 3.1). **Before connecting to power, ensure this switch is set to the correct input voltage (110V or 220V) for your region. Incorrect selection can cause severe damage to the unit and connected devices.**
- Input Wiring:** Connect the AC input wires to the designated terminals on the terminal block:
 - L (Live/Firewire):** Connect the live AC wire.
 - N (Neutral/Zero Line):** Connect the neutral AC wire.
 - ⊙ (Ground):** Connect the ground wire for safety.

4. **Output Wiring:** Connect your DC load to the output terminals:
 - **+V (Positive Electrode):** Connect the positive terminal of your DC load.
 - **-V (Negative Electrode):** Connect the negative terminal of your DC load.
5. **Verify Connections:** Double-check all wiring connections to ensure they are secure and correctly polarized.

6. OPERATING INSTRUCTIONS

Once the power supply is correctly installed and wired, you can proceed with operation:

1. **Power On:** Apply AC power to the input terminals. The power supply should activate, indicated by an LED if present.
2. **Load Connection:** Ensure your DC load is connected correctly to the +V and -V terminals.
3. **Voltage Adjustment (if applicable):** Some models may have a fine-tuning potentiometer for output voltage. Adjust only if necessary and with appropriate measurement tools.
4. **Normal Operation:** The power supply will provide a stable 30V DC output. Monitor your connected devices for proper function.
5. **Power Off:** To shut down, disconnect the AC input power.

7. APPLICATIONS

The MEISHILE S-150-30 Switching Power Supply is suitable for a wide range of applications requiring a stable 30V DC power source.



Figure 7.1: Common applications include control panels, LED lighting systems, various electronic devices, and power distribution setups.

Not Applicable For: This power supply is not designed for applications requiring precise voltage regulation modules, dimmable lights, LED plant lights with adjustable brightness, PWM motors, adjustable speed motors, variable voltage applications, or direct battery charging.

8. MAINTENANCE

The MEISHILE S-150-30 is designed for reliable operation with minimal maintenance. However, regular checks can help ensure its longevity and performance:

- **Cleaning:** Periodically clean the exterior of the unit, especially the ventilation holes, to prevent dust buildup that could impede airflow and cause overheating. Use a soft, dry cloth. Do not use liquid cleaners.
- **Connection Checks:** Occasionally inspect all wiring connections to ensure they remain tight and free from corrosion. Loose connections can lead to poor performance or safety hazards.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges.
- **Professional Service:** For any internal issues or repairs, contact a qualified service technician. Do not attempt to open the unit yourself.

9. TROUBLESHOOTING

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

- **No Output Power:**
 - Check if the AC input power is connected and active.

- Verify the input voltage selector switch is set correctly (110V or 220V).
- Inspect all wiring for loose connections or damage.
- Check for tripped circuit breakers or blown fuses in your electrical system.
- **Output Voltage Fluctuations:**
 - Ensure the load connected does not exceed the power supply's rated capacity (150W or 5A). Reduce the load if necessary.
 - Verify that the power supply has adequate ventilation and is not overheating.
- **Overload Protection Activated:**
 - If the power supply shuts down or reduces output, it may be due to an overload. Disconnect the load, wait a few minutes, and then reconnect with a reduced load.
 - Ensure the total power consumption of your devices is within the recommended 80-90% of the power supply's capacity.

If the problem persists after performing these checks, contact customer support or a qualified technician.

10. CERTIFICATIONS

The MEISHILE S-150-30 Switching Power Supply complies with international safety and environmental standards.



Figure 10.1: The product holds international safety certifications including FCC and CE, ensuring compliance with relevant standards for electromagnetic compatibility, low voltage directives, and restriction of hazardous substances.

11. WARRANTY AND SUPPORT

Your MEISHILE S-150-30 Switching Power Supply comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or any questions regarding the product, please contact your retailer or MEISHILE customer service. Please have your purchase receipt and product model number (S-150-30) ready when contacting support.