

MEISHILE 48V-1200W

MEISHILE 48V 25A 1200W Switching Power Supply

Model: 48V-1200W

1. INTRODUCTION

This manual provides detailed instructions for the MEISHILE 48V 25A 1200W Switching Power Supply. Please read this manual thoroughly before installation and operation to ensure safe and efficient use of the product. This power supply is designed to convert AC input voltage to a stable DC 48V output, suitable for various applications such as LED lighting, CCTV systems, audio amplifiers, and industrial machinery.

2. SAFETY INFORMATION

Warning: Improper installation or use can lead to electric shock, fire, or damage to the device. Always follow these safety guidelines:

- Ensure the power supply is disconnected from the main power source before any installation, wiring, or maintenance.
- This device should be installed by a qualified electrician or professional.
- Verify that the input voltage switch (115V/230V) is set correctly according to your local power grid before connecting to AC power. Incorrect setting can cause damage.
- Do not use this power supply with devices operating in BUCK-BOOST mode (e.g., certain battery chargers, dimmers, regulators, or PWM modules) as it may not be compatible.
- Ensure proper ventilation to prevent overheating. Do not block ventilation openings.
- Avoid exposing the unit to moisture, dust, or extreme temperatures.
- Do not open the casing of the power supply. There are no user-serviceable parts inside, and opening it voids the warranty and poses a risk of electric shock.
- Ensure all wiring connections are secure and properly insulated to prevent short circuits.

3. PRODUCT OVERVIEW AND FEATURES

The MEISHILE 48V 25A 1200W Switching Power Supply is designed for reliability and efficiency. Key features include:

- **Robust Construction:** Features a 1.6mm thickened aluminum housing for durability, wear resistance, and impact protection.
- **Efficient Cooling:** Equipped with a cooling fan, aluminum heat sinks, and silicone film for effective heat dissipation, ensuring longer lifespan and safer operation.
- **High Efficiency:** Utilizes a double-sided PCB with high-precision components, offering low standby power consumption and high operational efficiency.
- **Constant Voltage Output:** Provides a stable DC 48V output, manually adjustable within a range of 43.2V to 52.8V.
- **Comprehensive Protection:** Includes protection against overload (110%-150% threshold), overvoltage, short circuit, and overheating.
- **Wide Application:** Suitable for LED lamps, metal lamps, CCTV, LED displays, electrical appliances, industrial machines, and CNC DC-DC modules.



Image: Overview of the power supply highlighting its protection features including overload, overvoltage, interruption, short circuit, high-precision components, and overheating protection.

High quality boards

Low power consumption and high efficiency

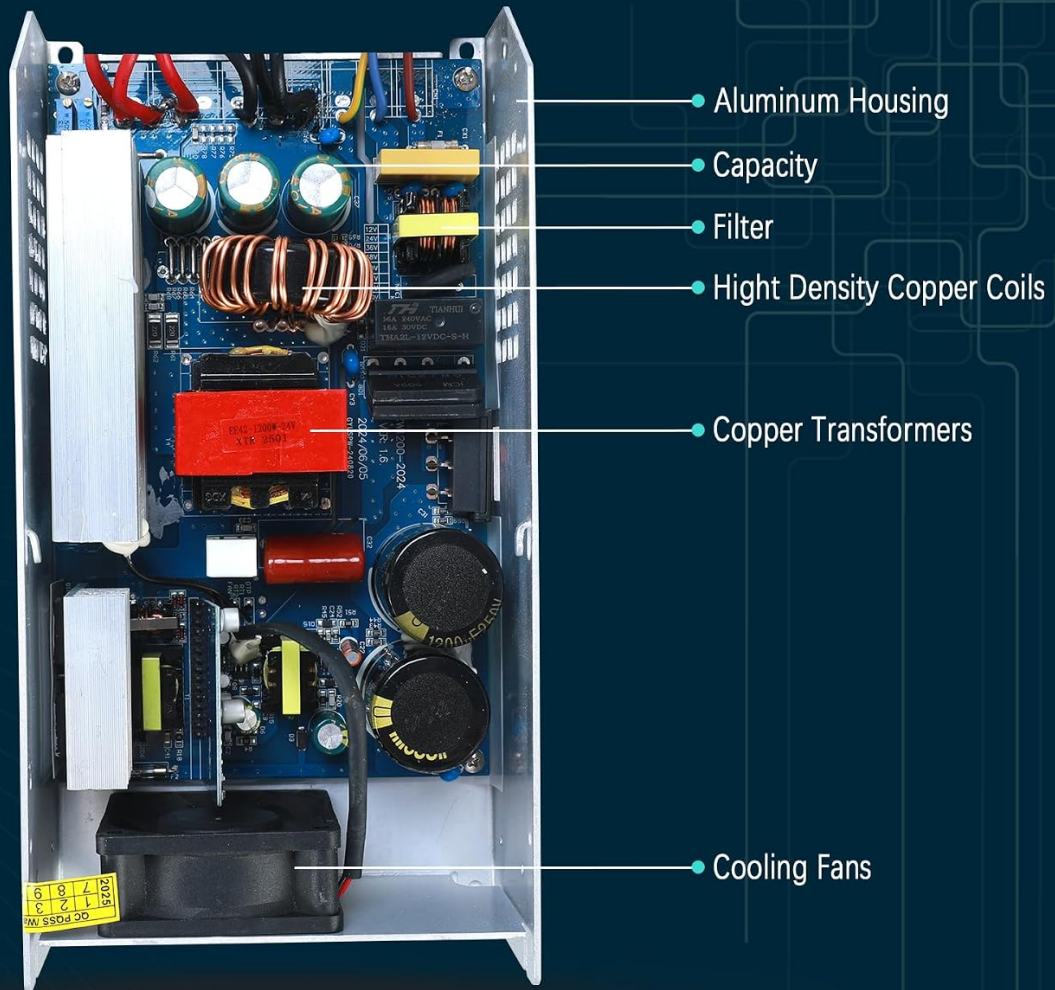


Image: Internal view of the power supply, illustrating its high-quality components such as aluminum housing, capacitors, filters, high-density copper coils, copper transformers, and cooling fans.

4. SPECIFICATIONS



Image: Product parameters and dimensions of the MEISHILE 48V 25A 1200W Switching Power Supply.

Parameter	Value
Model Number	48V-1200W
Input Voltage	AC 85-145V / 185-265V (Switchable)
Output Voltage	DC 48V (Adjustable 43.2V-52.8V)
Rated Current	25A
Rated Power	1200W
Overload Protection	110%-150% of rated current
Dimensions (L x W x H)	21.5 x 11.28 x 5 cm
Weight	650 grams
Cooling	Built-in fan (activates under load)

Parameter	Value
Certifications	CE, FCC, RoHS

5. SETUP AND INSTALLATION

Follow these steps for proper setup and installation:

1. **Unpack and Inspect:** Carefully remove the power supply from its packaging. Inspect for any physical damage.
2. **Mounting:** Choose a suitable location for mounting the power supply. Ensure it is a stable, dry, and well-ventilated area. The unit is designed for panel mounting.
3. **Input Voltage Selection:** Locate the input voltage selector switch on the side of the unit. Set it to either 115V or 230V according to your local AC power supply. **Failure to set this correctly can damage the unit.**
4. **AC Input Connection:** Connect the AC input power cable to the designated AC input terminals. Ensure the Live (L), Neutral (N), and Ground (GND) wires are connected correctly and securely.



Image: Detailed connection instructions showing AC input terminals and DC power output terminals (V+ and V-).

5. **DC Output Connection:** Connect your DC load to the V+ and V- output terminals. Ensure correct polarity (+ to V+, - to V-). Use appropriate gauge wiring for your application to handle the current.
6. **Voltage Adjustment (Optional):** If a precise output voltage is required, use a small screwdriver to carefully adjust the potentiometer (usually labeled "V.ADJ") to fine-tune the output voltage within the specified range (43.2V-52.8V). Monitor the output with a multimeter during adjustment.
7. **Power On:** Once all connections are secure and verified, connect the power supply to the AC mains. The cooling fan will activate when the unit is under load.

6. OPERATING INSTRUCTIONS

The MEISHILE 48V 25A 1200W Switching Power Supply operates in constant voltage mode. To ensure optimal performance and longevity, consider the following:

- **Load Capacity:** The power supply is rated for 1200W. For optimal performance and to prevent triggering overload protection, it is recommended to operate the power supply at 80% or less of its maximum rated power for typical loads (soft start devices). For inductive or capacitive loads with high inrush current (hard start devices), it is advisable to operate at 50% or less of the rated power.
- **Cooling Fan Operation:** The integrated cooling fan is designed to activate automatically when the power supply reaches a certain internal temperature or when under significant load. This ensures efficient heat dissipation and maintains stable operation.
- **Environmental Conditions:** Operate the power supply within its specified temperature and humidity ranges. Avoid environments with excessive dust, corrosive gases, or high vibration.

Quiet and Efficient Cooling System Makes

the Power Supply Last Longer and Safer

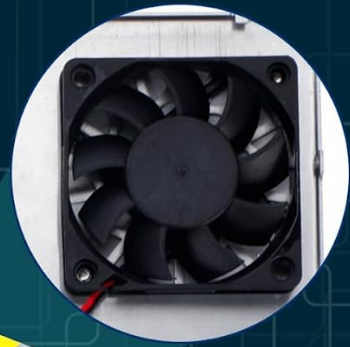


Image: The power supply featuring its quiet and efficient cooling system and the input voltage selection switch (115V/USA/CA and 230V/EU).

Scope of Application



Image: Examples of applications for the power supply, including LED strip lighting, CCTV, amplifiers, and other industrial or domestic uses.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your power supply:

- **Cleaning:** Periodically clean the exterior of the power supply with a soft, dry cloth. Ensure ventilation openings are free from dust and debris to maintain proper airflow. Do not use liquid cleaners or solvents.
- **Connection Check:** Regularly inspect all wiring connections for tightness and integrity. Loose connections can cause overheating or intermittent operation.
- **Environmental Check:** Ensure the operating environment remains within specified conditions (temperature, humidity, dust).
- **No User Serviceable Parts:** The power supply contains no user-serviceable parts. Do not attempt to open or repair the unit yourself. Refer to qualified service personnel if repair is needed.

8. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No output voltage	No AC input power Incorrect input voltage switch setting Internal fuse blown Overload protection activated	Check AC power source and cable Verify 115V/230V switch setting Contact support (do not open unit) Reduce load, disconnect power, wait, then reconnect
Output voltage unstable	Loose connections Overload Faulty load device	Check and secure all wiring Reduce load to within specifications Test with a different load device
Unit overheating	Insufficient ventilation Excessive load Fan malfunction	Ensure clear airflow around the unit Reduce load Contact support if fan does not operate under load
Fan constantly running loudly	High ambient temperature Heavy load Dust accumulation	Ensure adequate cooling and ventilation Verify load is within recommended limits Clean ventilation openings (exterior only)

If the problem persists after following these steps, please contact MEISHILE customer support.

9. WARRANTY AND SUPPORT

MEISHILE is committed to providing high-quality products and excellent customer service. This product comes with a standard manufacturer's warranty against defects in materials and workmanship under normal use. For any questions, technical assistance, or warranty claims, please contact our customer service team immediately. Our team has years of experience in the power supply field and is ready to assist you with pre-sales and after-sales support. Please refer to the contact information provided with your purchase or on the official MEISHILE website. The multilingual user manual is also available in the product guide and documentation section where you purchased the product.