

ALITOVE AL12V5AT

ALITOVE 12V 5A 60W Power Supply Adapter User Manual

Model: AL12V5AT

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your ALITOVE 12V 5A 60W Power Supply Adapter. Please read these instructions carefully before installation and operation. This power supply converts AC 110V/220V input to a stable DC 12V output, suitable for various electronic devices.

2. SAFETY INFORMATION

WARNING: Risk of Electric Shock. Installation should only be performed by qualified personnel.

- **Indoor Use Only:** This power supply is designed for indoor use in dry environments. Do not expose to water, moisture, or high humidity.
- **Proper Grounding:** Ensure the unit is properly grounded to prevent electric shock.
- **Voltage Selection:** Verify the AC input voltage switch (110V/220V) is set correctly for your region before connecting to power. Incorrect setting can damage the unit.
- **Overload Protection:** The unit features automatic overload cut-off, over-voltage cut-off, automatic thermal cut-off, and short circuit protection. However, avoid exceeding the maximum rated output of 12V 5A (60W).
- **Ventilation:** Ensure adequate airflow around the unit for proper heat dissipation. Do not cover the ventilation holes.
- **Terminal Cover:** Do not remove the protective terminal cover unless performing wiring. Ensure all connections are secure before applying power.

3. PRODUCT OVERVIEW

3.1 Features

- Input: 110V/220V AC (selectable)
- Output: DC 12V 5A max (60W)

- Output voltage adjustable by approximately 15%
- Safety protections: Overload, over-voltage, thermal cut-off, short circuit
- Fanless design for silent operation
- Metal case with ventilation for efficient heat dissipation

3.2 Components and Connections

The ALITOVE 12V 5A 60W Power Supply features clearly labeled terminals for AC input, ground, and DC output. An indicator light confirms operation, and a potentiometer allows for fine-tuning the output voltage.

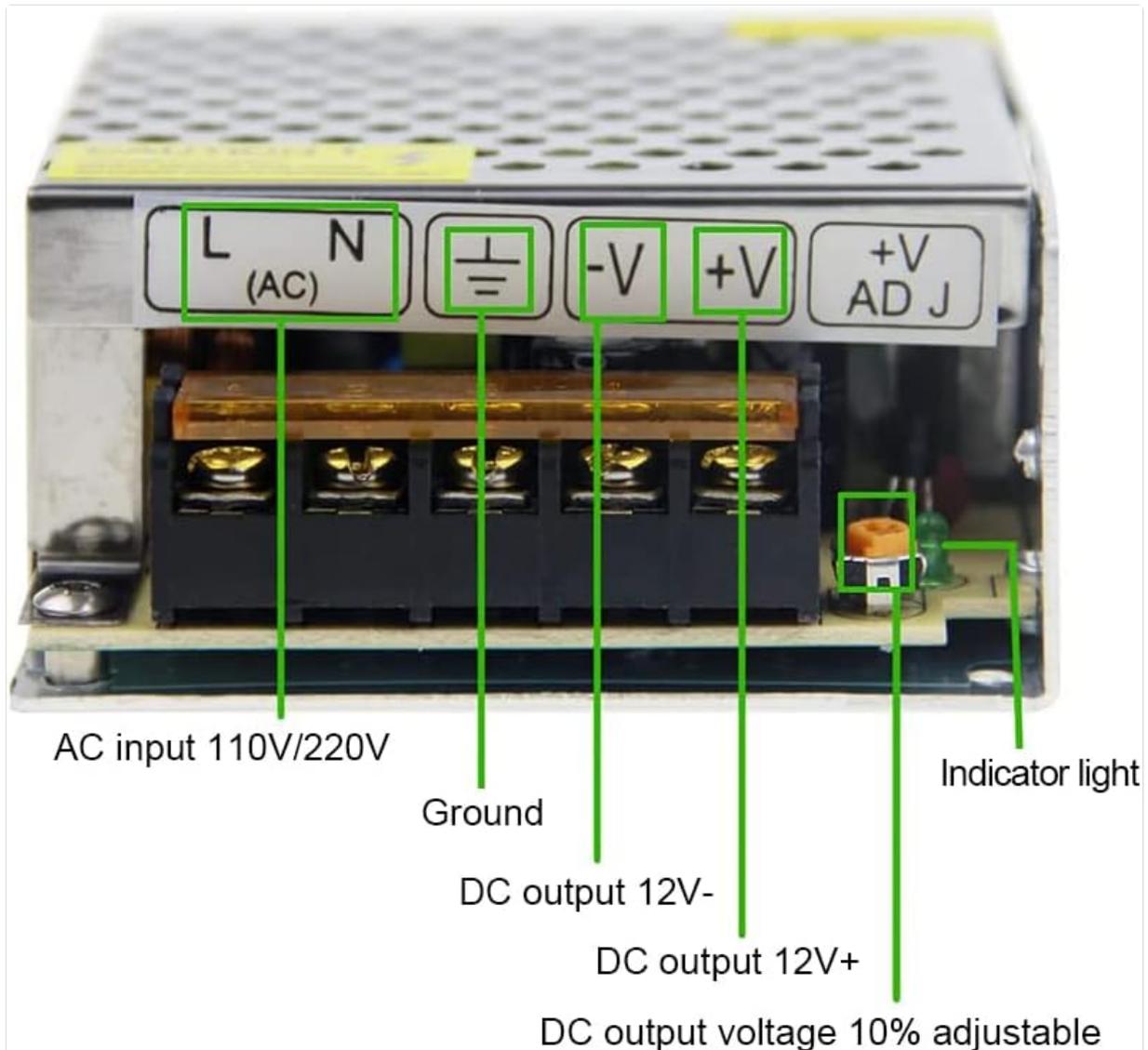


Figure 1: Terminal Layout and Labels

This image displays the terminal block of the power supply, clearly labeling the AC input (L, N), Ground, DC output (12V-, 12V+), and the voltage adjustment potentiometer (ADJ). An indicator light is also visible.

Refer to Figure 1 for the location of the following:

1. **L (AC) and N (AC):** Terminals for AC 110V/220V input.
2. **Ground Symbol:** Terminal for protective earth ground connection.
3. **-V (DC Output 12V-):** Negative terminal for DC 12V output.
4. **+V (DC Output 12V+):** Positive terminal for DC 12V output.
5. **ADJ (+V ADJ):** Potentiometer for adjusting the DC output voltage.
6. **Indicator Light:** Illuminates when the power supply is operational.

4. SETUP INSTRUCTIONS

Follow these steps for safe installation:

1. **Power Off:** Ensure all power sources are disconnected before making any connections.
2. **Mounting:** Securely mount the power supply in a well-ventilated area using appropriate fasteners.
3. **AC Input Voltage Selection:** Locate the red switch on the side of the unit. Set it to 110V for North America or 220V for regions with 220-240V AC mains. **Failure to set this correctly will damage the unit.**
4. **AC Input Wiring:** Connect your AC mains power cable to the L (Live) and N (Neutral) terminals. Connect the Earth Ground wire to the terminal marked with the ground symbol. Ensure all wires are securely fastened and the terminal cover is in place.
5. **DC Output Wiring:** Connect your 12V DC device's positive wire to the +V terminal and the negative wire to the -V terminal. Ensure polarity is correct and connections are secure.
6. **Voltage Adjustment (Optional):** If a precise output voltage is required, use a small screwdriver to carefully turn the ADJ potentiometer while monitoring the output with a multimeter. The voltage can be adjusted by approximately 15%.



Figure 2: ALITOVE 12V 5A 60W Power Supply Adapter

This image shows the overall view of the ALITOVE 12V 5A 60W Power Supply Adapter, highlighting its compact design and metal casing with ventilation holes.

5. OPERATING INSTRUCTIONS

Once all connections are made and verified:

1. **Apply Power:** Connect the AC mains power to the power supply.
2. **Verify Operation:** The indicator light on the terminal block should illuminate, indicating the unit is receiving power and providing output.
3. **Monitor Device:** Observe your connected 12V DC device to ensure it is functioning correctly.
4. **Power Off:** To turn off the power supply, disconnect the AC mains power.

6. MAINTENANCE

- **Cleaning:** Periodically clean the exterior of the power supply with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the ventilation holes remain clear of dust and debris to maintain optimal heat dissipation.
- **Inspection:** Regularly inspect power cables and connections for any signs of damage or loose wiring.
- **No User-Serviceable Parts:** Do not attempt to open or repair the power supply. Refer servicing to qualified personnel.

7. TROUBLESHOOTING

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

- **No Power Output / Indicator Light Off:**
 - Check if the AC input cable is securely connected to both the power supply and the wall outlet.
 - Verify the AC input voltage switch (110V/220V) is set correctly for your region.
 - Ensure the AC mains power source is active.
- **Low or Fluctuating Output Voltage:**
 - Ensure the connected load does not exceed the power supply's maximum rating of 12V 5A (60W). Overloading can cause voltage drop.
 - Check the DC output wiring for loose connections or excessive cable length, which can lead to voltage drop.
 - The voltage adjustment potentiometer (ADJ) might be set too low. Adjust it carefully while monitoring with a multimeter.
- **Unit Overheating:**
 - Ensure the power supply is in a well-ventilated area and its ventilation holes are not obstructed.
 - Reduce the connected load if it is close to or exceeding the maximum rating.
- **Short Circuit Protection Activated:**
 - Disconnect the load and check for any short circuits in your connected device or wiring.
 - Once the short circuit is resolved, reconnect the load. The power supply should resume normal operation.

If problems persist after following these steps, contact ALITOVE customer support.

8. SPECIFICATIONS

Model Number	AL12V5AT
Input Voltage	110V/220V AC (selectable)
Output Voltage	12V DC
Output Current	5 Amps (max)
Output Power	60 Watts (max)
Voltage Adjustment Range	±15%
Dimensions (L x W x H)	4.33 x 3.07 x 1.45 inches (11 x 7.8 x 3.7 cm)
Item Weight	6.3 ounces
Safety Certifications	CCC, CE, FCC
Mounting Type	Wall Mount



Figure 3: Product Dimensions

This image illustrates the physical dimensions of the power supply, showing its length (4.33 inches), width (3.07 inches), and height (1.45 inches).

9. WARRANTY AND SUPPORT

ALITOVE products are designed for reliability and performance. This product typically includes an 18-month warranty from the date of purchase, covering manufacturing defects. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty inquiries, please contact ALITOVE customer service through the retailer where the product was purchased or visit the official ALITOVE website for contact information.

