BOSYTRO 0-12V 0-50A 600W

BOSYTRO 0-12V 0-50A 600W Adjustable AC to DC Power Supply

Instruction Manual

1. Introduction

This manual provides essential information for the safe and efficient operation of your BOSYTRO 0-12V 0-50A 600W Adjustable AC to DC Power Supply. This device converts 110V-240V AC input to an adjustable 0-12V DC output with a maximum current of 50A and a maximum power of 600W. It is designed for various applications including LED strips, motor pumps, CCTV systems, 3D printers, and lab computers.
Please read this manual thoroughly before use and retain it for future reference.

2. Important Safety Information

- Ensure the input voltage switch (115V/230V) is correctly set for your region's power supply before connecting to AC power. Incorrect setting can cause damage.
- Do not operate the power supply in wet conditions or expose it to water.
- Always disconnect the power supply from the AC outlet before making any connections or adjustments to the output terminals.
- Do not exceed the maximum output current (50A) or power (600W) ratings to prevent damage to the unit or connected devices. For motor devices, ensure the power supply's peak power is at least twice the motor's power.
- This device features overload, over-current, and short-circuit protection. However, proper handling and connection are crucial for safe operation.
- Ensure adequate ventilation around the unit. The built-in cooling fan requires clear airflow to prevent overheating.
- Keep out of reach of children.

3. Package Contents

Verify that all items are present in the package:

- BOSYTRO 0-12V 0-50A 600W Adjustable AC to DC Power Supply Unit
- AC Power Cord
- Output Connection Cables (e.g., alligator clips)

- Terminal Connectors (if applicable)

4. Product Overview

The BOSYTRO power supply features a durable aluminum alloy shell with multiple ventilation holes and a built-in cooling fan for efficient heat dissipation. It includes an LED display for real-time voltage and current readings, and adjustable knobs for precise control.

Figure 4.1: Front view of the power supply with key dimensions and specifications. Note the input voltage (AC115V/230V), output voltage (DC 0-12V), output current (0-50A), and maximum output wattage (600W).

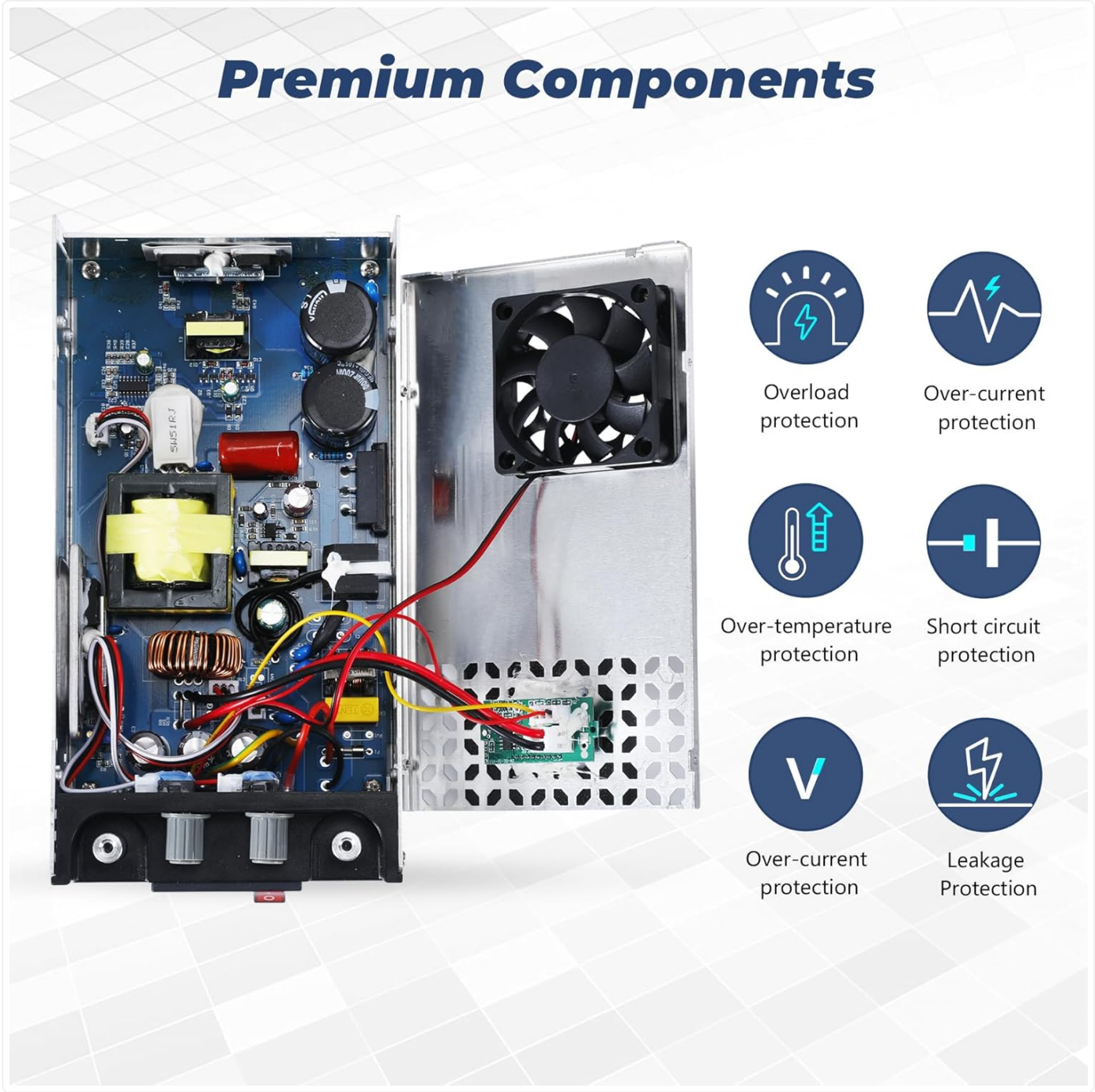

Figure 4.2: Internal view highlighting premium components and multiple protection features including overload, over-current, over-temperature, and short circuit protection.

5. Setup Instructions

1. **Select Input Voltage:** Locate the red switch on the side of the unit. Slide it to either **115V** or **230V** according to your local power grid. ***Warning: Incorrect voltage selection can severely damage the unit.***

Figure 5.1: Input voltage selector switch. Ensure it matches your local power supply.

2. **Connect AC Power:** Insert the provided AC power cord into the power input socket on the unit. Do not plug the other end into a wall outlet yet.
3. **Connect Output Device:**
    - Identify the positive (+) and negative (-) output terminals on the power supply.
    - Use the provided connection cables (e.g., alligator clips) or suitable wires to connect your device to the output terminals. Ensure correct polarity: positive to positive, negative to negative.
    - Tighten the terminal screws to secure the connections.

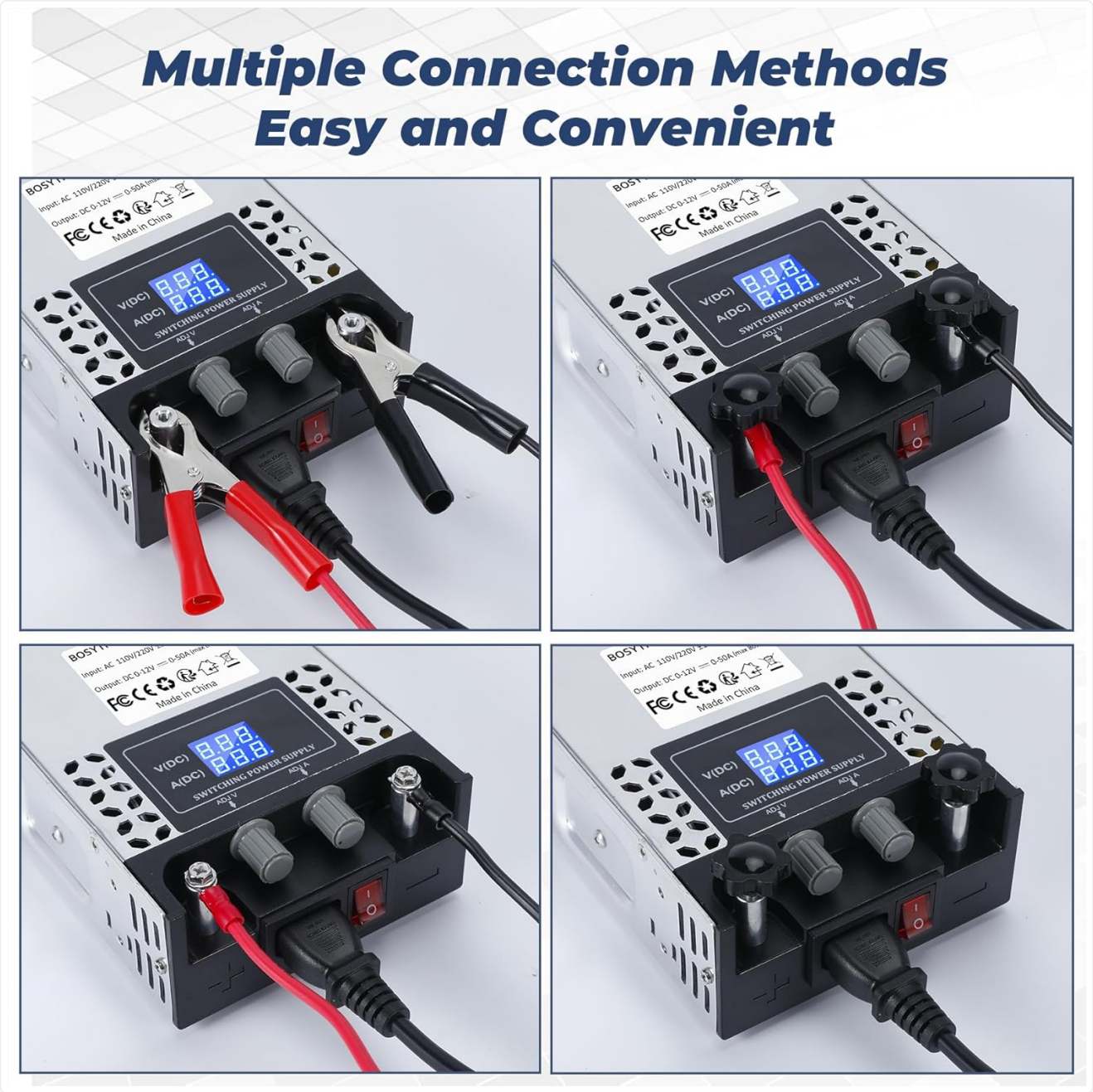

Figure 5.2: Examples of connecting devices to the output terminals using alligator clips or direct wire connections.

4. **Initial Voltage/Current Adjustment:** Before powering on, turn the voltage (VDC) and current (ADC) adjustment knobs counter-clockwise to their minimum settings. This prevents sudden high voltage/current output upon startup.

Figure 5.3: The adjustable voltage (0-12V) and current (0-50A) knobs, along with the high-precision LED display.

6. Operating Instructions

1. **Power On:** Plug the AC power cord into a wall outlet. Flip the red power switch on the unit to the "ON" position. The LED display will illuminate, showing the current voltage and current settings.
2. **Adjust Voltage:** Slowly turn the voltage adjustment knob clockwise to increase the output voltage to your desired level (0-12V). Observe the VDC reading on the LED display.
3. **Adjust Current:** Slowly turn the current adjustment knob clockwise to increase the output current to your desired level (0-50A). Observe the ADC reading on the LED display.
4. **Monitoring:** Continuously monitor the LED display for voltage and current readings during operation to ensure they remain within safe limits for your connected device.
5. **Cooling System:** The built-in cooling fan will activate automatically when necessary to maintain optimal operating temperature. Ensure the fan vents are not obstructed.

Figure 6.1: The power supply's cooling system, featuring an aluminum alloy shell for heat dissipation and a built-in fan.

6. **Power Off:** Before disconnecting your device, turn the voltage and current adjustment knobs counter-clockwise to their minimum settings. Then, flip the red power switch to the "OFF" position and unplug the AC power cord from the wall outlet.

7. Wide Application

This versatile power supply is suitable for a broad range of 12-volt devices and projects, including but not limited to:

- LED Strip Lighting
- Motor Pumps (ensure peak power consideration)
- CCTV Security Systems
- 3D Printers
- Lab Computers and Equipment
- RV and Camper Power Needs
- Radio/Car Stereos

- Security Cameras
- LCD Monitors

Figure 7.1: Visual representation of various applications for the adjustable power supply, including LED strips, campers, CCTV, audio equipment, car stereos, 3D printers, and CB radios.

8. Maintenance

- **Cleaning:** Ensure the unit is unplugged before cleaning. Use a dry, soft cloth to wipe the exterior. Do not use liquid cleaners or solvents.
- **Ventilation:** Regularly check that the cooling fan and ventilation holes are free from dust and debris to ensure proper airflow.
- **Storage:** When not in use for extended periods, store the power supply in a cool, dry place, away from direct sunlight and moisture.
- **Connections:** Periodically inspect all input and output connections for tightness and signs of wear or damage.

9. Troubleshooting

Problem	Possible Cause	Solution
No power/LED display off	Power cord not connected Power switch off Incorrect input voltage selection Blown fuse (internal)	Ensure AC power cord is securely plugged in. Flip the power switch to "ON". Verify the 115V/230V switch is set correctly. Contact customer support for fuse replacement.
Output voltage/current unstable or incorrect	Loose output connections Overload condition Faulty connected device	Check and tighten all output terminal connections. Reduce the load on the power supply. Ensure connected device's power requirements are within the unit's limits. Test with a different device to isolate the issue.
Unit overheating/Fan constantly running loudly	Obstructed ventilation Excessive load	Ensure clear space around the unit for airflow. Clean any dust from vents. Reduce the load on the power supply.

10. Specifications

Feature	Detail
Brand	BOSYTRO
Model	0-12V 0-50A 600W
Input Voltage	AC 110V-240V (selectable 115V/230V)
Output Voltage	DC 0-12V (Adjustable)
Output Current	0-50A (Adjustable)
Max Output Power	600W
Material	Aluminum Alloy
Cooling System	Built-in Cooling Fan
Protection Features	Overload, Over-current, Short Circuit
Product Dimensions	20.32 x 10.16 x 2.54 cm
Item Weight	907.18 g

11. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the contact information provided with your purchase or visit the official BOSYTRO website. Keep your purchase receipt as proof of purchase for warranty claims.

Manufacturer: BOSYTRO
Place of Business: ShenZhenShi Bao Si Chuang Mao Yi CO.,LTD 105 Lianyi Cuiyuan, No. 87, Zone 3, Yucui New Village,Longhua District, Shenzhen, CN, 518000
Email: servicesupport2000@163.com