

BOSYTRO 12V-600W

BOSYTRO 12V-600W AC to DC Converter Instruction Manual

Model: 12V-600W | Brand: BOSYTRO

1. INTRODUCTION

Thank you for choosing the BOSYTRO 12V-600W AC to DC Converter. This device is designed to efficiently convert alternating current (AC) from a standard wall outlet to direct current (DC) suitable for various 12V applications. This manual provides essential information for the safe installation, operation, and maintenance of your power supply. Please read it thoroughly before use.



Image 1.1: The BOSYTRO 12V-600W AC to DC Converter, highlighting its cooling fan, power cord input, positive and negative output terminals, and safety switch.

Key Features:

- **AC to DC Conversion:** Input voltage 110V-240V AC, output voltage 12V DC.
- **High Power Output:** Maximum current up to 50A, maximum output power 600W.
- **Easy Operation:** Features two nickel-plated copper terminals for direct clamp connection, ensuring good electrical conductivity and high conversion efficiency.
- **Intelligent Cooling System:** Aluminum alloy shell with multiple ventilation holes and a built-in cooling fan to prevent overheating. Anti-skid pads at the bottom aid heat dissipation and stability.
- **Multiple Protection Features:** Includes overload protection, over-current protection, and short circuit protection to safeguard connected devices.
- **Wide Application:** Suitable for industrial automation equipment, RVs, car stereos, LED strips, CCTV systems, 3D printers, motor pumps, security cameras, LCD monitors, and lab computers.

2. IMPORTANT SAFETY INFORMATION

Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- Always ensure the input voltage switch (115V/230V) is set correctly for your region's power supply before connecting the unit to AC power. Incorrect voltage selection can damage the unit.
- Do not open the power supply casing. There are no user-serviceable parts inside, and opening it voids the warranty and exposes you to dangerous voltages.
- Ensure proper ventilation. Do not block the cooling fan or ventilation holes.
- Keep the unit away from water, moisture, and high humidity environments.
- Avoid operating the unit in direct sunlight or near heat sources.
- Connect the power supply to a properly grounded outlet.
- Ensure all DC connections are secure and correctly polarized (+ to +, - to -) before applying power.
- Do not exceed the maximum output current (50A) or power (600W) of the unit.
- Disconnect the power supply from the AC outlet before making any connections or disconnections to the DC output.

3. SETUP INSTRUCTIONS

3.1 Unboxing

Carefully remove the power supply and all accessories from the packaging. Inspect the unit for any signs of damage. If damage is found, do not use the product and contact customer support.

Included in the Box:

- BOSYTRO AC to DC Converter (12V-600W)
- AC Power Cord
- Alligator Clips (Red and Black)
- Ring Terminals
- Mounting Screws



Image 3.1: The BOSYTRO 12V-600W AC to DC Converter along with its power cord, alligator clips, ring terminals, and mounting screws.

3.2 Input Voltage Selection

Before connecting the power supply to an AC outlet, you must select the correct input voltage (115V or 230V) using the switch located on the side of the unit. This is crucial to prevent damage to the power supply.

- For North America (USA, Canada, etc.), set the switch to **115V**.
- For Europe and other regions, set the switch to **230V**.

Important

Before using, please switching the input voltage to 115V or 230V according to your city voltage. Generally, 115V for US, 230V for EU



Image 3.2: The input voltage selector switch, showing positions for 115V (left) and 230V (right). Ensure this is set correctly for your local power grid.

3.3 Connecting the Power Supply

The BOSYTRO 12V-600W power supply offers versatile connection options for its DC output.

1. **AC Power Connection:** Insert the provided AC power cord into the power input socket on the unit and then into a grounded wall outlet. Ensure the power switch on the unit is in the OFF position before plugging into the wall.
2. **DC Output Connection:** The unit features two nickel-plated copper terminals for DC output. You can use the included alligator clips or ring terminals, or directly connect your device's wires. Ensure correct polarity: the red terminal is positive (+), and the black terminal is negative (-).

Multiple Connection Methods Easy and Convenient



Image 3.3: Examples of connecting devices to the power supply using alligator clips, bare wires, or ring terminals. Always ensure secure and correct polarity connections.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

After all connections are securely made and the input voltage is correctly selected:

- To power on the unit, flip the red power switch located next to the AC input socket to the 'I' (ON) position.
- To power off the unit, flip the red power switch to the 'O' (OFF) position.



Image 4.1: The red power switch, used to turn the unit on and off.

4.2 Output Voltage and Current

The power supply provides a stable 12V DC output. The output current will vary depending on the load connected, up to a maximum of 50A (600W). Ensure your connected device's power requirements do not exceed these limits.

5. MAINTENANCE

5.1 Cooling System

The BOSYTRO 12V-600W power supply features an intelligent cooling system with a built-in fan and an aluminum alloy shell with ventilation holes. To ensure optimal performance and longevity:

- Regularly check that the cooling fan and ventilation holes are free from dust and debris.
- Do not obstruct the airflow around the unit. Maintain adequate space for ventilation.



Image 5.1: Illustration of the cooling fan and airflow design for efficient heat dissipation.

5.2 General Cleaning

To clean the exterior of the power supply, disconnect it from all power sources and use a soft, dry cloth. Do not use liquid cleaners or solvents.

6. TROUBLESHOOTING

If you encounter issues with your BOSYTRO 12V-600W AC to DC Converter, refer to the following common problems and solutions:

- **No Power Output:**

- Check if the AC power cord is securely plugged into both the unit and the wall outlet.
- Ensure the power switch on the unit is in the 'ON' position.
- Verify that the input voltage selector switch (115V/230V) is set correctly for your region.
- Check the wall outlet with another device to confirm it has power.

- **Incorrect Output Voltage/Current:**

- Ensure your connected device is rated for 12V DC.
- Verify that the load does not exceed the maximum 50A or 600W capacity of the power supply. Overloading can trigger protection circuits.
- Check all DC connections for proper polarity and secure contact.

- **Overheating:**

- Ensure the cooling fan and ventilation holes are not blocked.
- Provide adequate space around the unit for proper airflow.
- Reduce the load if the unit is consistently running at its maximum capacity.

- **Unit Shuts Down Unexpectedly:**

- This may indicate activation of an internal protection circuit (overload, over-current, short circuit, or over-temperature).
- Disconnect the load, turn off the power supply, wait a few minutes, and then restart. If the issue persists, check for a faulty load or short circuit in your wiring.

If these steps do not resolve the issue, please contact BOSYTRO customer support.

7. SPECIFICATIONS

Feature	Specification
Input Voltage	110V-240V AC
Output Voltage	12V DC
Max Output Current	50 Amps
Max Output Power	600 Watts
Product Dimensions	4.53"D x 4.5"W x 2"H (11.5cm x 11.4cm x 5.1cm)
Weight	2.5 Pounds (approx. 1.13 kg)
Mounting Type	Floor Mount
Cooling	Built-in Fan, Aluminum Alloy Shell
Protections	Overload, Over-current, Short Circuit
Operating Temperature	-10°C to 60°C
Storage Temperature	-40°C to 85°C

Upgrade AC to DC Converter



Input Voltage	AC115V/230V	Output Voltage	DC 12V (±5%)
Output Current	50A MAX	Output Wattage	600W MAX
Working temperature	-10°C~60°C	Storage temperature	-40°C~85°C

Image 7.1: Visual representation of the power supply's dimensions and electrical parameters.

8. WARRANTY AND SUPPORT

8.1 Warranty Information

BOSYTRO products are manufactured to high-quality standards. This product is covered by a limited warranty against defects in materials and workmanship from the date of purchase. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by improper installation, misuse, unauthorized modifications, or natural disasters.

8.2 Customer Support

For technical assistance, warranty inquiries, or any questions regarding your BOSYTRO 12V-600W AC to DC Converter, please contact BOSYTRO customer support through the retailer where the product was purchased or visit the official BOSYTRO website for contact information.

