Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

A-BF SS-305MP

A-BF SS-305MP Laboratory DC Power Supply Unit User Manual

Model: SS-305MP

1. Introduction

This manual provides detailed instructions for the safe and efficient operation of your A-BF SS-305MP Laboratory DC Power Supply Unit. This device is designed for precise voltage and current regulation in various applications, including production line testing, mobile phone and computer maintenance, product aging, battery charging, and laboratory research.

2. Safety Instructions

To ensure safe operation and prevent damage to the unit or injury, please observe the following safety precautions:

- Always connect the power supply to a grounded AC outlet.
- Do not operate the unit in wet or damp conditions.
- Ensure proper ventilation to prevent overheating. Do not block the ventilation openings.
- Do not open the casing of the power supply. Refer all servicing to qualified personnel.
- Verify the input voltage matches the power supply's requirements (AC220V±10% 50Hz).
- Before making any connections or disconnections, ensure the power supply is turned off.
- Avoid short-circuiting the output terminals.

3. Product Overview

The A-BF SS-305MP is a compact and efficient DC power supply featuring a 4-digit display for precise voltage and current readings. It includes multiple protection functions for safe operation.



Figure 3.1: Front panel of the A-BF SS-305MP DC Power Supply. This image shows the digital display for voltage, current, and power, along with the control knobs for voltage and current adjustment, and output terminals. The model is clearly labeled SS-305MP.



Figure 3.2: Another front panel view, showing a similar model (SS-3010MF) with its digital display indicating voltage (32.00V), current (10.00A), and an "OFF" status. This illustrates the general layout and display characteristics of A-BF DC power supplies.

Key Features:

- Complete operating protection functions (Overload, Over-temperature, Short Circuit Protection).
- High efficiency, low ripple, compact size, and light weight.
- Double display for voltage and current with high precision.
- Voltage stabilization and current limiting capabilities.
- Temperature-controlled fan for heat dissipation and low noise.
- Dual potentiometers for more precise adjustment.

4. Setup

1. **Unpacking:** Carefully remove the power supply and all accessories from the packaging. Verify that all components listed in the package contents are present.
2. **Placement:** Place the unit on a stable, level surface with adequate ventilation. Ensure there is sufficient space around the unit for airflow, especially around the fan vents.
3. **Power Connection:** Connect the provided power cable to the AC input on the rear of the power supply and then to a grounded AC outlet (AC220V±10% 50Hz).
4. **Output Connections:** Connect the test leads to the output terminals (+ for positive, - for negative) on the front panel. Ensure connections are secure before applying power to your load.



Figure 4.1: The A-BF SS-305MP power supply shown with its packaging, power cord, and test leads. This image illustrates the typical contents included with the unit, essential for initial setup.

5. Operating Instructions

5.1. Powering On/Off

- Press the **ON/OFF** button to power on the unit. The display will illuminate.
- Press the **ON/OFF** button again to power off the unit.

5.2. Adjusting Voltage and Current

- **Voltage Adjustment:** Use the **Voltage** knob to set the desired output voltage. The fine adjustment potentiometer allows for precise control.
- **Current Adjustment:** Use the **Current** knob to set the desired output current limit. The fine adjustment potentiometer allows for precise control.
- The 4-digit display will show the set voltage and current values.

5.3. Memory Function (if applicable)

Some models may feature memory buttons (M1, M2, M3) for storing and recalling frequently used voltage and current settings. Refer to the specific model's front panel for these controls.

5.4. Over-Voltage Protection (OVP) and Over-Current Protection (OCP)

The unit is equipped with OVP and OCP functions to protect connected devices. These can typically be set via dedicated buttons or menu options on models that support them. When OVP or OCP is triggered, the output will shut down to prevent damage.

6. Specifications

The following table details the technical specifications for the A-BF SS-305MP model:

Parameter	Value (SS-305MP)
Output Voltage	0~32V
Output Current	0~5A
Output Power	150W
Voltage Load Regulation	0.1%+5mV
Voltage Line Regulation	0.01%+5mV
Current Load Regulation	0.2%+3mA
Current Line Regulation	0.2%+3mA
Max. Output Voltage Accuracy	30V max ±0.2%
Max. Output Current Accuracy	5A max ±0.2%
Operating Range	0°C~40°C, 80%RH
Suggested Operating Range	23°C±5°C

Parameter	Value (SS-305MP)
Size	230*150*80mm
Weight	1.95kg
Operating Voltage	AC220V±10% 50Hz
Cooling Method	Air-cooled



Figure 6.1: Dimensional drawing of the A-BF DC Power Supply, showing approximate measurements of 230mm (length), 150mm (height), and 80mm (width). This provides a visual reference for the unit's physical size.



Figure 6.2: Internal view of the power supply, illustrating the cooling fan and internal components. Text overlays indicate "Multiple Protection" features such as Overload Protection, Over-temperature Protection, and Short Circuit Protection, along with FCC, CE, and RoHS certifications.

7. Maintenance

- **Cleaning:** Disconnect the power supply from the AC outlet before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and debris to ensure proper airflow and prevent overheating.
- **Storage:** When not in use for extended periods, store the unit in a cool, dry place, away from direct sunlight and extreme temperatures.

8. Troubleshooting

Problem	Possible Cause	Solution
Unit does not power on.	No AC power, faulty power cable, or internal fuse.	Check power cable connection and AC outlet. Ensure the power button is pressed. If problem persists, contact support.
No output voltage/current.	Output is off, OVP/OCP triggered, or faulty connections.	Ensure output is enabled. Check for OVP/OCP indicators and reset if necessary. Verify test lead connections.
Output voltage/current is unstable.	Poor load connection, external interference, or internal fault.	Ensure secure load connections. Operate in a stable environment. If problem persists, contact support.
Unit overheats.	Blocked ventilation, excessive load, or high ambient temperature.	Ensure ventilation openings are clear. Reduce load. Operate within specified temperature range.

9. Warranty and Support

For warranty information or technical support, please refer to the documentation included with your purchase or contact the manufacturer directly. Keep your purchase receipt as proof of purchase.

© 2024 A-BF. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0FGTWYQTJ

More documents and user manuals: **https://manuals.plus/**