

MEAN WELL RS-100-24

MEAN WELL RS-100-24 Power Supply User Manual

Model: RS-100-24

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your MEAN WELL RS-100-24 AC/DC power supply. Please read this manual thoroughly before installation and use, and retain it for future reference.

Safety Instructions

- Ensure the power supply is disconnected from the main power source before any installation or maintenance.
- Installation should be performed by qualified personnel only.
- Do not operate the unit in environments with excessive moisture, dust, or extreme temperatures.
- Verify input voltage compatibility before connecting the power supply.
- Ensure proper grounding to prevent electrical shock.

2. PRODUCT OVERVIEW

The MEAN WELL RS-100-24 is a 100W single-output enclosed type AC/DC power supply, designed for various industrial and commercial applications. It features high efficiency, long life, and high reliability.



Figure 1: The Meanwell RS-100-24 power supply unit. This image displays the compact, enclosed design with terminal blocks for input and output connections.

Key features include protection against over-voltage, overload, and short circuit, and compliance with EMC standards.

3. SETUP AND INSTALLATION

Follow these steps for proper installation of the RS-100-24 power supply:

1. **Mounting:** Securely mount the power supply in a well-ventilated area using appropriate screws. Ensure adequate clearance for heat dissipation.
2. **Input Wiring:** Connect the AC input wires (Line, Neutral, Ground) to the designated input terminals. Refer to the label on the unit for correct terminal identification.
3. **Output Wiring:** Connect the DC output wires (+V, -V) to your load. Observe polarity carefully.
4. **Voltage Adjustment:** If necessary, adjust the output voltage using the potentiometer located on the unit. Use a small screwdriver for fine-tuning.
5. **Final Check:** Before applying power, double-check all connections for tightness and correct polarity.

Note: The power supply is designed for easy installation with screw terminals.

4. OPERATING INSTRUCTIONS

Once installed and wired correctly, the RS-100-24 power supply operates automatically upon receiving AC input power.

- **Power On:** Apply the specified AC input voltage (100-240V) to the input terminals. The unit will power on and provide a stable 24V DC output.
- **Output Voltage Adjustment:** The output voltage can be adjusted within a small range (typically -5% to +10% for output 1) using the trim potentiometer. This allows for fine-tuning to meet specific load requirements.

- **Load Requirements:** For models with dual outputs, ensure that minimum load requirements are met as specified in the datasheet to maintain stable operation. The total load must not exceed the rated output power of 100W.
- **Overload Protection:** The unit features built-in overload protection. If an overload occurs, the output may shut down or enter a constant current mode. Reduce the load to resume normal operation.

5. MAINTENANCE

The MEAN WELL RS-100-24 power supply is designed for long-term reliability with minimal maintenance. However, periodic checks can help ensure optimal performance and extended lifespan.

- **Cleaning:** Keep the unit free from dust and debris. Use a soft, dry cloth to clean the exterior. Do not use liquid cleaners.
- **Ventilation:** Ensure that ventilation openings are not obstructed. Proper airflow is crucial for heat dissipation, especially with high operating temperatures up to 70°C.
- **Connections:** Periodically check all screw terminal connections to ensure they are secure and free from corrosion. Loose connections can lead to overheating or intermittent operation.
- **Inspection:** Visually inspect the unit for any signs of damage, such as cracked casing or discolored components. If damage is found, discontinue use and contact support.

6. TROUBLESHOOTING

If you encounter issues with your RS-100-24 power supply, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No output voltage	No AC input power; Blown fuse; Overload protection activated; Incorrect wiring.	Check AC input connection and power source; Inspect internal fuse (if accessible and user-serviceable); Reduce load; Verify wiring.
Output voltage too low/high	Output voltage potentiometer misadjusted; Excessive load; Faulty unit.	Adjust potentiometer; Reduce load; If problem persists, contact support.
Unit overheating	Insufficient ventilation; Excessive ambient temperature; Overload.	Ensure proper airflow around the unit; Operate within specified temperature range; Reduce load.

If the problem persists after attempting these solutions, please contact MEAN WELL customer support or your distributor.

7. SPECIFICATIONS

Parameter	Value
Model Number	RS-100-24
Output Type	Single
Output Voltage	24V DC

Parameter	Value
Output Current	0-4.5A
Output Wattage	100W
Input Voltage Range	100-240V AC
Efficiency	High efficiency (specific value not provided in source)
Operating Temperature	Up to 70°C
Protection Features	Over-voltage, Overload, Short Circuit
EMC Compliance	EN 55022 Class B
Harmonic Current Compliance	EN 61000-3-2

8. WARRANTY AND SUPPORT

MEAN WELL products are manufactured to high-quality standards and are designed for reliability. For specific warranty information, please refer to the warranty card included with your product or visit the official MEAN WELL website.

For technical support, service, or inquiries regarding your RS-100-24 power supply, please contact your authorized MEAN WELL distributor or the manufacturer directly. Provide your model number (RS-100-24) and a detailed description of the issue when seeking assistance.

Note: *Unauthorized repairs or modifications may void the product warranty.*