

MEAN WELL SE-1000-24

Instruction Manual

MEAN WELL SE-1000-24 AC-DC Power Supply

Model: SE-1000-24

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your MEAN WELL SE-1000-24 AC-DC Power Supply. The SE-1000-24 is a high-performance 1000W single output power supply designed to deliver a stable 24Vdc output with a maximum current of 41.7A. It incorporates various protection features to ensure reliable operation. Please read this manual thoroughly before installation and operation, and retain it for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the unit:

- **Electrical Hazard:** This unit operates with high voltage. Do not open the casing. Refer all servicing to qualified personnel.
- **Ventilation:** Ensure adequate airflow around the unit. Do not block ventilation openings.
- **Environment:** Operate the power supply in a dry, well-ventilated area, free from excessive dust, moisture, and corrosive substances.
- **Grounding:** Ensure the unit is properly grounded before connecting to the AC input.
- **Load Compatibility:** Verify that the connected load's voltage and current requirements are within the power supply's specifications.
- **Overload Protection:** While the unit has overload protection, continuous operation in an overloaded state can reduce its lifespan.

3. PRODUCT OVERVIEW



Figure 1: Angled view of the MEAN WELL SE-1000-24 AC-DC Power Supply. This image shows the silver enclosed casing, ventilation grilles, and the output terminals. A label indicating the model series (SE-1000) and input/output specifications is visible on the top surface.

The MEAN WELL SE-1000-24 is an enclosed type AC-DC power supply. It features a robust metal casing with integrated cooling vents. The unit is designed for industrial applications requiring a stable and high-power 24V DC source.

4. SETUP AND INSTALLATION

Follow these steps for proper installation:

1. **Mounting:** Securely mount the power supply in a location that allows for adequate ventilation. Ensure there is sufficient space around the unit for heat dissipation.
2. **Input Voltage Selection:** The SE-1000-24 supports both 115VAC and 220VAC input. Verify the input voltage switch setting matches your local AC mains voltage before connecting power. *Incorrect voltage selection can damage the unit.*
3. **AC Input Connection:** Connect the AC mains power to the designated input terminals. Ensure proper grounding.

4. **DC Output Connection:** Connect your load to the DC output terminals (Lug terminal female type). Observe correct polarity (+ and -).
5. **Remote Functions (Optional):**
 - **Remote On-Off Control:** If utilizing the remote on-off control feature, connect the appropriate wiring as per the detailed wiring diagram (refer to product datasheet for specific pinouts).
 - **Remote Sense Function:** For applications requiring precise voltage regulation at the load, connect the remote sense wires to the load's positive and negative terminals. This compensates for voltage drop across the output cables.
6. **Initial Check:** Before applying full power, double-check all connections for correctness and security.

5. OPERATING INSTRUCTIONS

Once installed, operating the SE-1000-24 is straightforward:

1. **Power On:** Apply AC power to the unit. The power supply will initiate its startup sequence.
2. **Output Voltage Adjustment (if applicable):** Some models may have a fine-tuning potentiometer for output voltage adjustment. Refer to the product datasheet for details. Adjust only within the specified range.
3. **Monitoring:** Observe the connected load to ensure it is receiving stable power. The unit's built-in protections will activate if an abnormal condition (e.g., short circuit, overload) occurs.
4. **Power Off:** Disconnect the AC input power to shut down the unit.

6. MAINTENANCE

The MEAN WELL SE-1000-24 is designed for long-term reliability with minimal maintenance. However, periodic checks can help ensure optimal performance:

- **Cleaning:** Periodically clean the ventilation grilles to prevent dust buildup, which can impede airflow and lead to overheating. Use a soft, dry cloth or compressed air. *Ensure the unit is powered off and disconnected from AC mains before cleaning.*
- **Connection Checks:** Routinely inspect all input and output connections for tightness and signs of corrosion.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges.
- **No User-Serviceable Parts:** Do not attempt to open or repair the unit. There are no user-serviceable parts inside. Opening the casing will void the warranty.

7. TROUBLESHOOTING

If you encounter issues with your SE-1000-24, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No output voltage	<ul style="list-style-type: none">• No AC input power• Input voltage switch incorrect• Overload/Short circuit protection activated• Internal fault	<ul style="list-style-type: none">• Check AC power source and connections.• Verify input voltage switch setting.• Disconnect load, check for short circuits or excessive current draw. Reconnect load if issue resolved.• Contact technical support.

Problem	Possible Cause	Solution
Output voltage unstable/fluctuating	<ul style="list-style-type: none"> • Load exceeding capacity • Poor connections • Over-temperature protection 	<ul style="list-style-type: none"> • Reduce load or use a higher capacity power supply. • Check all wiring connections for tightness. • Ensure adequate ventilation; allow unit to cool down.
Unit is excessively hot	<ul style="list-style-type: none"> • Insufficient ventilation • Overload condition • High ambient temperature 	<ul style="list-style-type: none"> • Clear obstructions from vents; ensure proper airflow. • Verify load current is within specifications. • Relocate unit to a cooler environment.

If the problem persists after attempting these solutions, please contact MEAN WELL technical support.

8. SPECIFICATIONS

Parameter	Value
Model	SE-1000-24
Output Voltage	24 VDC
Output Current	0 - 41.7 A
Rated Output Power	1000.8 W
Input Voltage (VAC)	115 & 220 (Switch Selectable)
Input Frequency	47 to 63 Hz
Maximum Input Current	17.5 A
Efficiency	88%
Protections	Short Circuit, Overload, Over Voltage, Over Temperature
Dimensions (L x W x H)	278 x 127 x 63.5 mm (10.94 x 5 x 2.5 inches)
Weight	5.04 Pounds (approx. 2.29 kg)
Operating Temperature	-20°C to 60°C
Agency Approvals	UL
Cooling Method	Air

9. WARRANTY AND SUPPORT

MEAN WELL products are manufactured to high quality standards. For warranty information and technical support, please refer to the official MEAN WELL website or contact your authorized distributor. Keep your purchase receipt as proof of purchase for warranty claims.

For further assistance, you may also refer to the product page on Amazon: [Amazon Product Page](#)

