

## MEAN WELL NDR-240-24

# MEAN WELL NDR-240-24 Industrial DIN Rail Power Supply User Manual

Model: NDR-240-24

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of the MEAN WELL NDR-240-24 Industrial DIN Rail Power Supply. Please read this manual thoroughly before using the product and retain it for future reference.

The NDR-240-24 is a 240W industrial power supply designed for DIN rail mounting, offering a stable 24V output at 10 Amps. It features a universal AC input range and built-in protection functions, making it suitable for various industrial control applications.

## 2. SAFETY INSTRUCTIONS

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Observe the following safety precautions to prevent injury or damage to the unit:

- Installation must be performed by qualified personnel only.
- Ensure the power supply is disconnected from the main power source before any installation, wiring, or maintenance work.
- Verify correct wiring polarity and connections to prevent damage to the unit and connected equipment.
- Do not operate the unit in environments exceeding its specified temperature and humidity limits.
- Ensure proper ventilation and clearance around the unit for adequate air convection cooling.
- The unit is designed for indoor use in industrial control apparatus.

## 3. PRODUCT OVERVIEW

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The MEAN WELL NDR-240-24 is a high-efficiency 240W DIN rail power supply. Its slim design allows for space-saving installation in cabinets. Key features include:

- Universal AC input / Full range (90-264 VAC)
- Built-in active Power Factor Correction (PFC) function
- Protections: Short circuit, Overload, Over voltage, Over temperature

- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or TS-35/15
- Output connector type: Screw terminal



Image 3.1: MEAN WELL Brand Logo. This logo identifies the manufacturer of the power supply.

## 4. INSTALLATION

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### 4.1. Mounting

The NDR-240-24 is designed for easy installation on standard DIN rails (TS-35/7.5 or TS-35/15). To mount the unit:

1. Hook the top edge of the power supply onto the DIN rail.
2. Push the bottom edge firmly until it clicks into place.
3. Ensure the unit is securely fastened to the rail.

### 4.2. Wiring

All connections are made via screw terminals. Refer to the product label for exact terminal markings. Ensure all wires are correctly sized for the current draw and securely fastened to prevent loose connections.

- **Input Terminals (AC):** Connect the AC input (90-264 VAC) to the designated 'L' (Line), 'N' (Neutral), and 'FG' (Frame Ground) terminals.
- **Output Terminals (DC):** Connect the DC load to the '+V' (Positive) and '-V' (Negative) terminals.
- **Grounding:** Proper grounding is essential for safety and performance. Connect the frame ground terminal to an earth ground.

Recommended torque for screw terminals is typically 4.4 lb-in for input and 7 lb-in for output, but always refer to the specific markings on the unit.

## 5. SETUP

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### 5.1. Output Voltage Adjustment

The NDR-240-24 features an adjustable output voltage. Locate the '+V ADJ' potentiometer on the unit. Using a small screwdriver, carefully turn the potentiometer clockwise to increase the output voltage or counter-clockwise to decrease it. The factory setting is typically 24V, with a small adjustment range (e.g., 24.2V).

### 5.2. Pre-Operation Check

Before applying power, double-check all wiring connections for correctness and security. Ensure no loose strands or short circuits are present.

## 6. OPERATING INSTRUCTIONS

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## 6.1. Power On

Once installation and setup are complete, apply AC power to the input terminals. The 'DC OK' indicator LED on the unit should illuminate, indicating that the output voltage is within the specified range.

## 6.2. Normal Operation

The power supply will provide a stable 24V DC output to the connected load. Monitor the 'DC OK' indicator for continuous operation. In case of an abnormal condition (e.g., overload), the indicator may turn off or flash, and the unit's protection circuits will activate.

## 6.3. Power Off

To power off the unit, disconnect the AC input power. The 'DC OK' indicator will extinguish, and the DC output will cease.

# 7. MAINTENANCE

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The NDR-240-24 is designed for reliable operation with minimal maintenance. However, periodic checks can help ensure longevity and performance.

- **Cleaning:** Ensure the ventilation holes are free from dust and debris to maintain effective air convection cooling. Use a soft, dry brush or compressed air for cleaning. Do not use liquid cleaners.
- **Connection Checks:** Periodically inspect all screw terminal connections to ensure they remain tight and secure.
- **Environmental Conditions:** Verify that the operating environment remains within the specified temperature and humidity ranges.

# 8. TROUBLESHOOTING

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If the power supply is not functioning correctly, refer to the following common issues and solutions:

Problem	Possible Cause	Solution
No DC output / 'DC OK' LED off	No AC input power Incorrect wiring Internal fault	Check AC input power source and connections. Verify input/output wiring. Contact technical support if problem persists.
Output voltage too low or unstable	Overload condition Incorrect voltage adjustment	Reduce load or check for short circuits. Adjust output voltage using the '+V ADJ' potentiometer.
Unit shuts down intermittently	Overload protection activated Over temperature protection activated	Reduce load. Ensure adequate ventilation and ambient temperature is within limits. Allow unit to cool down.

If troubleshooting steps do not resolve the issue, do not attempt to repair the unit yourself. Contact qualified service personnel or MEAN WELL technical support.

# 9. SPECIFICATIONS

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Parameter	Value
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Parameter	Value
Model	NDR-240-24
Primary Output Voltage (VDC)	24
Output Current (A)	10
Maximum Output Power (W)	240
Input Voltage (VAC)	90 to 264
Form Factor	DIN rail
Cooling Method	Air Convection
Connector Type	Screw Terminal
Product Dimensions (L x W x H)	2.48 x 4.93 x 4.47 inches
Weight	0.01 Ounces (approx.)

## 10. WARRANTY AND SUPPORT

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For warranty information, please refer to the documentation provided with your purchase or contact MEAN WELL directly. Technical support and service inquiries should be directed to your authorized MEAN WELL distributor or the manufacturer's customer service channels.

Please have your product model number (NDR-240-24) and purchase details available when contacting support.