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Schneider Electric NF442L2C

SCHNEIDER ELECTRIC Panelboard Interior NF442L2C Instruction Manual

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Schneider Electric NF442L2C Panelboard Interior. This product is designed for electrical distribution applications, featuring a 250-Amp capacity and rated for 480 Volts. Adherence to these instructions is crucial for proper function and safety.

2. Safety Information

WARNING: Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material. This product must be installed and serviced by a licensed electrician in accordance with all national and local electrical codes.

- Always disconnect power at the main service disconnect before working on or near the panelboard.
- Use appropriate personal protective equipment (PPE) including insulated gloves, eye protection, and arc-flash rated clothing.
- Verify all circuits are de-energized using a voltage tester before touching any components.
- Ensure proper grounding and bonding of the panelboard.
- Do not operate the panelboard with covers removed or if any damage is visible.

3. Product Overview

The NF442L2C is a panelboard interior designed for integration into a compatible panelboard enclosure. It accommodates various circuit breakers for electrical distribution. The image below illustrates a typical installation of Schneider Electric panelboards, one of which has its cover open to reveal the internal circuit breakers and wiring.

Image: Two Schneider Electric panelboards, one with an open cover showing circuit breakers.

4. Specifications

Specification	Detail
Manufacturer	SCHNEIDER ELECTRIC
Part Number	NF442L2C
Item Weight	3 pounds
Product Dimensions	10 x 10 x 10 inches
Item Model Number	NF442L2C
Thickness	1 Inches
Voltage	480 Volts

Specification	Detail
Amperage Capacity	250 Amps
Item Package Quantity	1
Mounting Type	Panel Mount
Included Components	NF442L2C

5. Setup and Installation

Installation of the NF442L2C Panelboard Interior must be performed by qualified electrical personnel in compliance with all applicable national and local electrical codes and standards.

5.1 Pre-Installation Checks

- Verify that the panelboard interior matches the specifications of the enclosure and the electrical system.
- Inspect the unit for any shipping damage. Do not install damaged equipment.
- Ensure all necessary tools and safety equipment are available.

5.2 Mounting

- Mount the panelboard enclosure securely to a suitable surface, ensuring it is level and plumb.
- Install the NF442L2C interior into the enclosure according to the enclosure manufacturer's instructions, ensuring all mounting hardware is tightened appropriately.

5.3 Wiring

- Connect incoming power conductors to the main lugs, ensuring correct phase rotation and proper torque on all terminals.
- Install circuit breakers into the panelboard interior, ensuring they are correctly seated and rated for the intended circuits.
- Connect branch circuit conductors to the appropriate circuit breakers and neutral/ground bars.
- Verify all connections are secure and torqued to specifications.
- Ensure proper grounding and bonding of the panelboard and all associated equipment.

6. Operation

Once installed and wired by qualified personnel, the panelboard interior facilitates the distribution of electrical power and provides overcurrent protection through its circuit breakers.

6.1 Circuit Breaker Function

- **ON Position:** The circuit breaker is closed, allowing current to flow to the connected circuit.
- **OFF Position:** The circuit breaker is open, interrupting current flow to the connected circuit.
- **TRIPPED Position:** The circuit breaker has automatically opened due to an overcurrent or short-circuit condition. The handle will typically be in an intermediate position.

6.2 Resetting a Tripped Breaker

- Identify the cause of the trip (e.g., overloaded circuit, short circuit). Correct the issue before resetting.

- Move the breaker handle firmly to the full OFF position.
- Then, move the handle to the full ON position.
- If the breaker immediately trips again, do not attempt to reset it. Contact qualified personnel.

7. Maintenance

Regular maintenance helps ensure the longevity and safe operation of the panelboard interior. All maintenance should be performed by qualified personnel with the power disconnected.

- **Annual Inspection:** Visually inspect the panelboard interior for signs of overheating, loose connections, corrosion, or damage.
- **Cleaning:** Use a dry, non-conductive brush or vacuum to remove dust and debris. Do not use liquids.
- **Torque Verification:** Periodically verify that all electrical connections (lugs, breaker terminals) are torqued to the manufacturer's specifications.
- **Circuit Breaker Testing:** Follow manufacturer recommendations for periodic testing of circuit breakers.

8. Troubleshooting

For any electrical issues, always prioritize safety. Do not attempt repairs if you are not a qualified electrician.

8.1 Common Issues

- **Frequent Breaker Trips:** This often indicates an overloaded circuit, a short circuit, or a ground fault. Investigate connected loads and wiring.
- **Loss of Power to a Circuit:** Check if the corresponding circuit breaker is in the OFF or TRIPPED position. If resetting does not restore power, there may be a wiring issue or a faulty breaker.
- **Overheating:** Visible discoloration, burning smells, or hot spots on the panelboard indicate serious issues. Immediately disconnect power and contact qualified personnel.

8.2 When to Call a Professional

Contact a licensed electrician or Schneider Electric technical support if:

- A circuit breaker repeatedly trips after being reset.
- You observe sparks, smoke, or burning odors from the panelboard.
- There is a complete loss of power to the panelboard.
- You are unsure about any aspect of troubleshooting or repair.

9. Warranty and Support

For information regarding product warranty, technical support, or service, please refer to the official Schneider Electric website or contact their customer service department. Keep your purchase receipt and product model number (NF442L2C) readily available for any inquiries.

Schneider Electric is committed to providing reliable products and support. For the most current information, please visit www.se.com.

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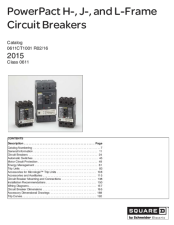
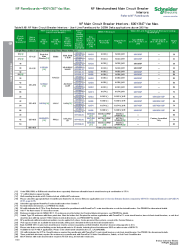
Related Documents - NF442L2C

	Schneider Electric I-Line MCCB Installation and Product Selector Guide This document provides installation instructions and a product selector table for Schneider Electric's I-Line Molded Case Circuit Breakers (MCCBs), detailing single-pole and triple-pole models with their specifications.
	Schneider Electric Date Code System Explained A comprehensive guide to understanding Schneider Electric product date codes, covering current and legacy systems from 1950 to the present, including how to locate and interpret them.
	Schneider Electric PowerPacT™ L-Frame Circuit Breaker Kit Installation Guide for NQ Panelboards This instruction bulletin from Schneider Electric provides detailed steps for installing the NQMB6PPL kit, featuring PowerPacT™ L-Frame main and sub-feed circuit breakers, onto NQ panelboards. Includes kit contents, tools, and safety precautions.
	PowerPact H-, J-, and L-Frame Circuit Breakers Catalog | Schneider Electric Comprehensive catalog from Schneider Electric detailing the PowerPact H-, J-, and L-Frame circuit breakers. Find specifications, catalog numbers, trip units, accessories, and energy management features for advanced electrical protection and optimization.
	Schneider Electric NF Main Circuit Breaker Interiors - 600Y/347 Vac Max Panelboards Detailed specifications for Schneider Electric NF Main Circuit Breaker Interiors, designed for 600Y/347 Vac Max panelboards. This datasheet covers NEMA 1 and water/dirt-resistant enclosures, including part numbers, ratings, and dimensions for I-Line panelboard applications.
	Schneider Electric Square D™ Non-Metallic Enclosure for QO™ Circuit Breakers - Installation Guide Comprehensive installation and safety guide for Schneider Electric's Square D™ non-metallic enclosures, compatible with QO™ circuit breakers, load centers, and molded case switches. Details preparation, mounting, wiring, installation, removal, and energizing procedures.