

## Legrand 419925

# Legrand BP 30076 RX3 Miniature Circuit Breaker (MCB) Instruction Manual

MODEL: 419925

## 1. Introduction

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This instruction manual provides essential information for the safe and correct installation, operation, and maintenance of the Legrand BP 30076 RX3 Miniature Circuit Breaker (MCB), model 419925. Please read this manual thoroughly before attempting any installation or operation to ensure proper function and to prevent electrical hazards.

**Important Safety Notice: Installation and maintenance must be performed by a qualified electrician in accordance with all local and national electrical codes and regulations.**

## 2. Product Overview

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The Legrand BP 30076 RX3 is a 1-pole + neutral (1PN) miniature circuit breaker designed for protection against overcurrents resulting from overloads and short circuits in electrical installations. It features a C-curve tripping characteristic, suitable for general applications. The device has a rated current of 10 Amperes and a breaking capacity of 6000 Amperes.



**Figure 1:** Legrand BP 30076 RX3 Miniature Circuit Breaker. This image shows the front view of the circuit breaker, highlighting the ON/OFF switch, the 'C10' rating indicating a 10A C-curve, the 'RX3' series designation, and the Legrand brand logo. The model number '419925' is also visible on the right side.

### 3. Specifications

Feature	Specification
Brand	Legrand
Model Number	419925
Product Type	Miniature Circuit Breaker (MCB)
Series	RX3
Number of Poles	1 Pole + Neutral (1PN)
Rated Current	10 A
Tripping Curve	C-Type

Feature	Specification
Breaking Capacity	6000 A
Mounting Type	Panel Mount
Dimensions (L x W x H)	7 x 4 x 9 cm
Weight	200 grams

## 4. Setup and Installation

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**Safety First:** Ensure the main power supply is disconnected before commencing any installation work. Use appropriate personal protective equipment (PPE).

### 1. Pre-installation Check:

- Verify that the circuit breaker's specifications (current rating, breaking capacity, tripping curve) match the requirements of the electrical circuit it will protect.
- Inspect the device for any physical damage. Do not install damaged units.

### 2. Mounting:

- The Legrand BP 30076 is designed for panel mounting, typically on a DIN rail within an electrical distribution board.
- Clip the circuit breaker securely onto the DIN rail. Ensure it is firmly seated and does not wobble.

### 3. Wiring:

- Connect the incoming phase conductor to the top terminal marked 'L' or '1'.
- Connect the incoming neutral conductor to the top terminal marked 'N' or '2'.
- Connect the outgoing phase conductor to the bottom terminal marked 'L' or '2'.
- Connect the outgoing neutral conductor to the bottom terminal marked 'N' or '4'.
- Ensure all connections are tight and secure to prevent loose contacts, which can cause overheating and fire hazards. Use appropriate torque settings as specified by Legrand (refer to product packaging or official Legrand documentation for precise values).
- Double-check all wiring for correctness before restoring power.

## 5. Operation

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The Legrand BP 30076 MCB operates with a simple toggle switch mechanism.

- **Switching ON:** To energize the circuit, push the toggle switch upwards to the 'ON' position.
- **Switching OFF:** To de-energize the circuit, push the toggle switch downwards to the 'OFF' position.
- **Automatic Tripping:** In the event of an overload or short circuit, the MCB will automatically trip, moving the toggle switch to an intermediate or 'OFF' position. This indicates a fault in the circuit.
- **Resetting After a Trip:** Before resetting a tripped MCB, identify and rectify the cause of the fault (e.g., remove overloaded appliances, fix short circuits). Once the fault is cleared, push the toggle switch fully down to the 'OFF' position, then push it upwards to the 'ON' position to restore power. If the MCB trips immediately again, do not force it; consult a qualified electrician.

## 6. Maintenance

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The Legrand BP 30076 MCB is designed for minimal maintenance. However, periodic inspection is recommended to ensure continued safe operation.

- **General Care:** Keep the circuit breaker and its surroundings clean and free from dust and debris.
- **Periodic Inspection (by a qualified electrician):**
  - Visually inspect the MCB for any signs of damage, discoloration, or overheating (e.g., melted plastic, burnt smell).
  - Check terminal connections for tightness.
  - Ensure the toggle switch operates smoothly and trips correctly when tested (if test functionality is available or simulated by a professional).
- Do not attempt to open or repair the circuit breaker. If it is faulty, it must be replaced by a new, identical unit.

## 7. Troubleshooting

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This section addresses common issues you might encounter with your circuit breaker.

- **MCB Trips Frequently:**
  - **Cause:** Overload. Too many appliances are connected to the circuit, drawing more current than the MCB's rating.
  - **Solution:** Disconnect some appliances from the circuit. Distribute loads more evenly across different circuits.
  - **Cause:** Short circuit. A direct connection between live and neutral/earth conductors, often due to damaged wiring or faulty appliances.
  - **Solution:** Unplug all appliances from the affected circuit. If the MCB still trips upon reset, there is likely a wiring fault. Contact a qualified electrician immediately.
  - **Cause:** Faulty appliance. One specific appliance is causing the trip.
  - **Solution:** Plug appliances back in one by one to identify the faulty device. Discontinue use of the faulty appliance.
  - **Cause:** Faulty MCB. The circuit breaker itself may be defective.
  - **Solution:** If all other causes are ruled out, the MCB may need replacement by a qualified electrician.
- **MCB Does Not Stay ON:**
  - **Cause:** Persistent fault (overload or short circuit) in the circuit.
  - **Solution:** Do not force the MCB. Investigate and resolve the underlying electrical fault as described above. If the issue persists, contact a qualified electrician.

## 8. Safety Information

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Adherence to safety guidelines is paramount when working with electrical components.

- Always disconnect the main power supply before installing, inspecting, or performing any work on the circuit breaker or associated wiring.
- Never touch live electrical parts.

- Ensure proper grounding where applicable.
- Do not use the circuit breaker in environments exceeding its specified operating conditions (e.g., extreme temperatures, excessive humidity).
- This device is designed for protection; it does not eliminate the need for proper wiring and safe electrical practices.
- In case of doubt or persistent electrical issues, always consult a qualified and certified electrician.

## 9. Warranty and Support

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For warranty information, please refer to the terms and conditions provided by Legrand at the time of purchase or visit the official Legrand website. For technical support or further assistance, please contact Legrand customer service or your local distributor.