

## Legrand LEG406911

# Legrand DNX3 4500 6KA Tetrapolar Circuit Breaker 20A

Model: LEG406911

## INTRODUCTION

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The Legrand DNX3 4500 6KA Tetrapolar Circuit Breaker (Model LEG406911) is an electrical protection device designed to safeguard circuits from overcurrents, including both overloads and short circuits. This device is a 4-pole (tetrapolar) circuit breaker with a 20 Ampere rating and a C-curve tripping characteristic, suitable for 400V~ installations. It features a breaking capacity of 6kA. This manual provides essential information for its safe and correct installation, operation, and maintenance.



*This image shows the front view of the Legrand DNX3 4500 6kA Tetrapolar Circuit Breaker, highlighting its main body, toggle switch, and terminal connections.*

## SETUP AND INSTALLATION

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**Safety First:** Before beginning any electrical work, ensure that the main power supply to the circuit is disconnected at the source. Failure to do so can result in serious injury or death. Installation should only be performed by a qualified electrician in accordance with local electrical codes and regulations.

### Mounting

1. The Legrand DNX3 4500 circuit breaker is designed for DIN rail mounting. Ensure the DIN rail is securely installed within the electrical enclosure.
2. Position the circuit breaker on the DIN rail and press firmly until it clicks into place. Verify that it is securely fastened.

### Wiring Connections

This device uses screw terminals for connections (Vis/vis). It is a tetrapolar (4-pole) device, meaning it connects to

three phases and one neutral conductor.

- **Input (Top Terminals):** Connect the incoming power supply conductors (three phases and neutral) to the top screw terminals. Ensure correct phase sequence and neutral connection.
- **Output (Bottom Terminals):** Connect the outgoing circuit conductors (three phases and neutral) to the bottom screw terminals.
- Tighten all screw terminals securely to prevent loose connections, which can cause overheating and arcing. Refer to the torque specifications provided by Legrand for proper tightening.
- Verify all connections are correct and secure before restoring power.

## OPERATION

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### Switching On/Off

- To switch the circuit breaker **ON**, push the toggle switch upwards to the 'I' (ON) position.
- To switch the circuit breaker **OFF**, push the toggle switch downwards to the 'O' (OFF) position.

### Automatic Tripping

The circuit breaker is designed to automatically trip to the 'OFF' position in the event of an overload or short circuit. This action protects the electrical circuit and connected equipment from damage.

### Resetting After a Trip

1. If the circuit breaker trips, first identify and rectify the cause of the overload or short circuit (e.g., unplug faulty appliances, reduce load).
2. Once the fault is cleared, push the toggle switch fully downwards to the 'O' (OFF) position, then push it upwards to the 'I' (ON) position to reset the breaker and restore power.
3. If the breaker trips immediately after resetting, do not attempt to reset it again. There is likely a persistent fault that requires professional attention.

## MAINTENANCE

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The Legrand DNX3 4500 circuit breaker requires minimal maintenance. Regular inspections can help ensure its continued reliable operation.

- **Visual Inspection:** Periodically inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections. Ensure the toggle switch operates smoothly.
- **Cleaning:** If necessary, gently clean the exterior of the circuit breaker with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure power is disconnected before cleaning.
- **Professional Check:** It is recommended to have your electrical installation, including circuit breakers, inspected by a qualified electrician periodically to ensure compliance with safety standards and optimal performance.

## TROUBLESHOOTING

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If you encounter issues with your Legrand DNX3 4500 circuit breaker, consider the following:

- **Circuit Breaker Trips Frequently:**

- **Overload:** The circuit may be drawing too much current. Disconnect some appliances or devices from the circuit.
  - **Short Circuit:** A short circuit can be caused by faulty wiring or a defective appliance. Unplug all devices from the circuit and try resetting the breaker. If it still trips, there is a wiring fault.
  - **Ground Fault:** While this specific breaker is for overcurrent, other protective devices (like RCDs) might trip due to ground faults. Ensure all appliances are in good condition.
- **Circuit Breaker Does Not Reset:**
    - Ensure the toggle switch is pushed fully to the 'OFF' position before attempting to push it to 'ON'.
    - If a persistent fault (overload or short circuit) is still present, the breaker will not reset. You must identify and clear the fault first.
    - If the breaker is physically damaged or feels loose, it may need replacement.
  - **No Power to Circuit, Breaker is ON:**
    - Check other circuit breakers in the distribution board. Another protective device might have tripped.
    - Verify main power supply to the distribution board.
    - Inspect wiring connections for looseness or damage.

**Important:** If you are unable to identify or resolve the issue, or if you suspect a serious electrical fault, immediately contact a qualified electrician. Do not attempt repairs if you are not qualified.

## SPECIFICATIONS

| Feature                | Specification             |
|------------------------|---------------------------|
| Manufacturer           | Legrand                   |
| Model Number           | LEG406911                 |
| Number of Poles        | 4 (Tetrapolar)            |
| Current Rating         | 20A                       |
| Rated Voltage          | 400V~                     |
| Breaking Capacity      | 6kA                       |
| Tripping Curve         | C                         |
| Connection Type        | Screw terminals (Vis/vis) |
| Mounting Type          | DIN Rail                  |
| Dimensions (L x W x H) | 19 x 17 x 17 cm           |
| Weight                 | 320 grams                 |
| Material               | Polyamide-Imide           |
| Standards              | NF                        |
| Specific Use           | Indoor, Professional      |

## WARRANTY AND SUPPORT

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Information regarding specific warranty terms for the Legrand DNX3 4500 6KA Tetrapolar Circuit Breaker is not provided in this manual. For warranty details, please refer to the documentation included with your purchase or contact your Legrand supplier or reseller.

For technical support, product inquiries, or assistance with troubleshooting beyond the scope of this manual, please contact Legrand customer service or a certified Legrand professional in your region. Contact information can typically be found on the official Legrand website ([www.legrand.com](http://www.legrand.com)) or through your local distributor.