

Legrand DPX3 160

Legrand Magnetothermic DPX3 160 Circuit Breaker Instruction Manual

Model: DPX3 160 (Part Number: 420041)

INTRODUCTION

This instruction manual provides essential information for the safe and effective installation, operation, and maintenance of the Legrand Magnetothermic DPX3 160 Circuit Breaker. This device is designed to protect electrical circuits from overcurrents, which can result from overload or short circuit. Please read this manual thoroughly before installation or use.

The Legrand DPX3 160 is a 3-pole circuit breaker with a rated current of 25A and a breaking capacity of 25kA at 400V~. It features an automatic magnetothermal molded case and is designed for DIN rail mounting.

IMPORTANT SAFETY INFORMATION

- **Professional Installation Required:** Installation, maintenance, and repair of this electrical device must be performed by qualified and licensed electricians in accordance with all national and local electrical codes and regulations.
- **Disconnect Power:** Always disconnect power at the main service panel before installing, servicing, or removing the circuit breaker. Failure to do so can result in severe injury or death.
- **Use Correct Tools:** Use only insulated tools when working with electrical components.
- **Environmental Conditions:** Ensure the installation environment is dry and free from corrosive gases or excessive dust.
- **Do Not Modify:** Never attempt to modify the circuit breaker. Any unauthorized modifications will void the warranty and may compromise safety.

PRODUCT OVERVIEW

The Legrand DPX3 160 is a compact and robust magnetothermic circuit breaker. Key features include its 3-pole configuration, adjustable thermal protection, and high breaking capacity.



Figure 1: Legrand DPX3 160 Magnetothermic Circuit Breaker. This image shows the front view of the 3-pole circuit breaker, highlighting the main toggle switch, the adjustable thermal setting dial, and the product labeling with electrical specifications.

Key Components:

- **Toggle Switch:** Main switch for turning the circuit breaker ON (green 'O' visible) or OFF (red 'I' visible). Also indicates tripped status (mid-position).
- **Terminal Connections:** Located at the top and bottom for connecting electrical wires.
- **Thermal Adjustment Dial:** Allows adjustment of the thermal trip threshold (e.g., 0.8 to 1 In).
- **Product Label:** Displays model number, electrical ratings, and compliance standards (e.g., DPX3 160, In=25A, 4 200 41, CE, IEC/EN 60947-2).

SPECIFICATIONS

Feature	Value
Brand	Legrand
Model Number	420041 (DPX3 160)
Type	Magnetothermal Molded Case Circuit Breaker
Poles	3-Pole
Rated Current (In)	25A
Breaking Capacity (Icu) at 400V~	25 kA
Thermal Adjustment Range	0.8 to 1 In
Voltage Rating (Ue)	220/240V, 380/415V, 440V, 480/500V, 690V (as per device label)
Frequency	50-60 Hz
Mounting Type	DIN Rail Mount
Product Dimensions	3.98 x 0.87 x 3.5 inches
Item Weight	2.51 pounds
Standards	IEC/EN 60947-2, GB 14048.2

Note: Specifications are subject to change without notice. Refer to the product label for the most accurate information.

SETUP AND INSTALLATION

WARNING: Ensure all power is disconnected before proceeding with installation. Only qualified personnel should perform this procedure.

- 1. Prepare the Panel:** Ensure the electrical panel or enclosure is de-energized and safe to work on. Verify with a voltage tester.
- 2. Mounting:** The DPX3 160 is designed for DIN rail mounting. Securely attach the circuit breaker to the DIN rail in the designated position within the electrical panel.
- 3. Wiring Connections:**
 - Connect the incoming power supply conductors to the upper terminals of the circuit breaker.
 - Connect the outgoing load conductors to the lower terminals of the circuit breaker.
 - Ensure all connections are tight and secure to prevent loose contacts, which can cause overheating or arcing. Refer to local codes for appropriate wire gauges and torque specifications.
- 4. Thermal Adjustment:** If applicable, adjust the thermal trip setting (Ir) using the dial on the front of the breaker to match the specific requirements of the protected circuit. The range is typically 0.8 to 1 times the rated current (In).
- 5. Verify Installation:** Double-check all wiring and connections for correctness and security. Ensure no bare wires are exposed.
- 6. Restore Power:** Once installation is complete and verified, carefully restore power to the main service panel.

OPERATING INSTRUCTIONS

- **Turning ON:** Push the toggle switch firmly upwards until the green 'O' indicator is visible. This indicates the circuit is closed and power is flowing.
- **Turning OFF:** Push the toggle switch firmly downwards until the red 'I' indicator is visible. This indicates the circuit is open and power is disconnected.
- **Tripped State:** If an overload or short circuit occurs, the circuit breaker will automatically trip. The toggle switch will move to a central, intermediate position.
- **Resetting a Tripped Breaker:**
 - a. First, turn the breaker completely OFF (downwards) to reset the internal mechanism.
 - b. Investigate and resolve the cause of the trip (e.g., unplug overloaded devices, fix short circuits).
 - c. Once the issue is resolved, turn the breaker ON (upwards). If it trips again immediately, do not force it; consult a qualified electrician.

MAINTENANCE

The Legrand DPX3 160 circuit breaker is designed for minimal maintenance. However, periodic inspection by a qualified electrician is recommended.

- **Visual Inspection:** Periodically inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** If necessary, gently clean the exterior of the circuit breaker with a dry, lint-free cloth. Do not use liquids or abrasive cleaners. Ensure power is off before cleaning.
- **No User-Serviceable Parts:** This device contains no user-serviceable parts. Do not attempt to open or repair the circuit breaker.
- **Professional Check:** If the circuit breaker frequently trips without an apparent cause, or if it shows signs of damage, have it inspected and replaced by a qualified electrician.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Circuit breaker trips frequently.	Overloaded circuit, short circuit, ground fault, or faulty appliance.	Reduce load on the circuit. Unplug appliances. Inspect wiring for damage. If problem persists, consult a qualified electrician.
Circuit breaker does not reset.	Persistent fault on the circuit, internal breaker fault.	Ensure the toggle is pushed fully to the OFF position before attempting to reset. If it still won't reset, do not force it. Call a qualified electrician.
Breaker feels hot to the touch.	Overload, loose connection, or internal fault.	Immediately disconnect power to the circuit. Do not touch the breaker. Contact a qualified electrician for inspection and repair.

For any issues not covered here, or if you are unsure about any electrical procedure, always consult a qualified and licensed electrician.

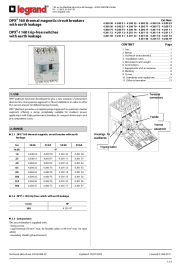
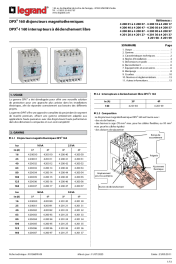
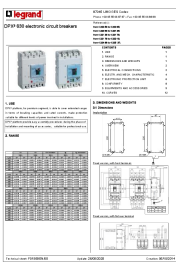
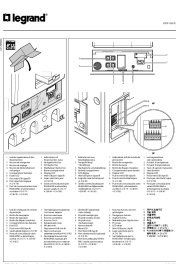
WARRANTY AND SUPPORT

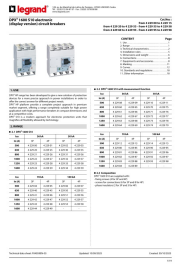
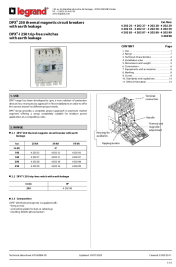
Legrand products are manufactured to high standards and are typically covered by a manufacturer's warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary by region and product.

For detailed warranty information, technical support, or service inquiries, please refer to the official Legrand website or contact their customer service department directly. Keep your purchase receipt and product model number (420041) handy when contacting support.

Legrand Official Website: www.legrand.us (or relevant regional website)

Related Documents - DPX3 160

	<p>Legrand DPX³ 160 Thermal Magnetic Circuit Breakers with Earth Leakage - Technical Data</p> <p>Comprehensive technical data sheet for Legrand DPX³ 160 thermal magnetic circuit breakers and DPX³-I 160 trip-free switches with earth leakage, covering specifications, installation, dimensions, and performance curves.</p>
	<p>Legrand DPX³ 160 Magnetic Thermal Circuit Breakers and Free Release Miniature Circuit Breakers</p> <p>Technical datasheet for Legrand DPX³ 160 magnetic thermal circuit breakers and DPX³-I 160 free release miniature circuit breakers, covering technical specifications, installation guidelines, dimensions, accessories, and standards compliance.</p>
	<p>Legrand DPX3 630 Electronic Circuit Breakers - Technical Specification and Data Sheet</p> <p>Comprehensive technical specification for Legrand DPX3 630 electronic circuit breakers. This document details product features, range, dimensions, weights, electrical and mechanical characteristics, electronic protection unit settings, conformity standards, available equipment and accessories, and tripping curves for various versions.</p>
	<p>Legrand DPX3 630 S10 Circuit Breaker: User Guide and Technical Specifications</p> <p>Comprehensive guide to the Legrand DPX3 630 S10 circuit breaker, covering installation, settings, functions, measurements, and safety instructions. Learn about its features, operation, and technical specifications.</p>

	<p>Legrand DPX³ 1600 S10 Electronic Circuit Breakers Technical Data</p> <p>Technical specifications, features, installation guidelines, and performance curves for the Legrand DPX³ 1600 S10 electronic display version circuit breakers.</p>
	<p>Legrand DPX³ 250 Thermal Magnetic Circuit Breakers with Earth Leakage - Technical Data</p> <p>Comprehensive technical data for Legrand DPX³ 250 thermal magnetic circuit breakers and DPX³-I 250 trip-free switches with earth leakage, covering specifications, installation rules, dimensions, accessories, and tripping curves.</p>