Schneider Electric LAP36400

Schneider Electric LAP36400 Molded Case Circuit Breaker User Manual

Model: LAP36400 | 600V, 400A

1. Safety Information

WARNING: Risk of electric shock, explosion, or arc flash. This equipment must be installed, operated, serviced, and maintained only by qualified electrical personnel. Qualified personnel are those who have skills and knowledge related to the construction and operation of electrical equipment and its installation, and have received safety training to recognize and avoid the hazards involved.

- Always de-energize the equipment before working on or around it.
- Use a properly rated voltage sensing device to confirm the power is off.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- Never work alone.
- Lock out and tag out the circuit breaker according to established safety procedures.
- Carefully read and understand all instructions before installing or servicing this product.

2. Product Overview

The Schneider Electric LAP36400 is a 600-Volt, 400-Amp molded case circuit breaker designed for reliable circuit protection. This device is engineered to interrupt current flow automatically when an overload or short circuit condition is detected, thereby protecting electrical systems and equipment from damage.

Key Features:

- Molded case design for robust protection.
- Rated for 600 Volts and 400 Amperes.
- Thermal-magnetic trip unit for overload and short-circuit protection.
- Suitable for various industrial and commercial applications.

Product Components:


ON
OFF
400 A
SQUARE D

Figure 1: Front view of the Schneider Electric LAP36400 Molded Case Circuit Breaker. This image displays the main body of the circuit breaker, including the ON/OFF handle, the 400A rating label, and the terminal connections at the top. The front panel also shows various technical specifications and compliance markings.

- **Operating Handle:** Used to manually switch the breaker ON or OFF, and indicates trip status.
- **Terminals:** Connection points for incoming and outgoing electrical conductors.
- **Rating Label:** Displays critical information such as voltage, current, and interrupting ratings.
- **Trip Unit:** Internal mechanism that detects overcurrents and initiates tripping.

3. Setup and Installation

Installation of the LAP36400 circuit breaker must be performed by qualified personnel in accordance with all applicable national and local electrical codes and standards.

3.1 Pre-Installation Checks:

- Verify that the circuit breaker ratings (voltage, current, interrupting capacity) match the system requirements.
- Inspect the breaker for any physical damage that may have occurred during shipping.
- Ensure all necessary mounting hardware and tools are available.

3.2 Mounting:

1. Ensure the mounting surface is clean, dry, and capable of supporting the breaker's weight.
2. Secure the circuit breaker firmly using appropriate fasteners. Refer to the specific enclosure or panelboard instructions for detailed mounting procedures.

3.3 Wiring Connections:

1. Before making any connections, ensure the power supply is completely de-energized and locked out/tagged out.
2. Connect the incoming power conductors to the line terminals and the outgoing load conductors to the load terminals.
3. Use conductors of appropriate size and insulation rating for the 400A current and 600V voltage.
4. Tighten all terminal screws to the torque specifications provided by Schneider Electric. Overtightening or undertightening can lead to poor connections and potential hazards.
5. Verify all connections are secure and free from loose strands or insulation damage.

4. Operating Instructions

The LAP36400 circuit breaker is designed for simple operation.

4.1 Turning ON the Breaker:

- Ensure all downstream loads are ready to receive power.
- Move the operating handle firmly to the "ON" position. The handle will latch in place.

4.2 Turning OFF the Breaker:

- To de-energize the circuit, move the operating handle firmly to the "OFF" position.

4.3 Understanding Trip Status and Resetting:

- When an overload or short circuit occurs, the breaker will automatically trip. The operating handle will move to an intermediate "TRIPPED" position (typically between ON and OFF).
- To reset a tripped breaker:

a. First, move the handle completely to the "OFF" position. This resets the internal trip mechanism.
b. Investigate and clear the cause of the trip (e.g., remove overload, fix short circuit).
c. Once the fault is cleared, move the handle to the "ON" position to restore power.

- If the breaker trips immediately after resetting, do not attempt to reset it again without further investigation by qualified personnel.

5. Maintenance

Regular maintenance helps ensure the longevity and reliable operation of the circuit breaker. All maintenance procedures must be performed by qualified personnel with the power supply de-energized and locked out/tagged out.

5.1 Inspection:

- Periodically inspect the circuit breaker for signs of overheating, such as discoloration or melting of insulation.
- Check for loose connections, corrosion, or accumulation of dust and debris.
- Ensure the operating handle moves freely and latches securely in the ON and OFF positions.

5.2 Cleaning:

- Use a clean, dry, non-conductive cloth to remove dust and dirt from the exterior of the breaker.
- Avoid using solvents or abrasive cleaners that could damage the plastic components.

5.3 Testing:

- Regular testing of circuit breakers should be performed by qualified technicians according to industry standards and manufacturer recommendations. This may include insulation resistance tests and trip unit functionality tests.

6. Troubleshooting

If the circuit breaker is not functioning as expected, consider the following troubleshooting steps. Always ensure safety precautions are followed before any investigation.

6.1 Breaker Trips Repeatedly:

- **Overload:** The connected load may be drawing more current than the breaker's rating. Reduce the load or redistribute it across other circuits.
- **Short Circuit:** A direct connection between live conductors or between a live conductor and ground. This requires immediate investigation and repair by qualified personnel.
- **Ground Fault:** Current leaking to ground. This can be detected by ground fault protection devices if installed.
- **Faulty Appliance/Equipment:** Disconnect individual loads to identify the problematic device.

6.2 Breaker Fails to Reset:

- Ensure the handle is moved fully to the "OFF" position before attempting to move it to "ON".
- If a fault condition (overload or short circuit) still exists, the breaker will not reset. The fault must be cleared first.
- If the breaker still fails to reset after clearing the fault and following the reset procedure, the breaker itself may be damaged and require replacement.

6.3 No Power to Circuit:

- Check if the breaker is in the "OFF" or "TRIPPED" position.
- Verify the main power supply to the panel is active.
- Inspect wiring connections for looseness or damage.

7. Specifications

Attribute	Value
Brand	Schneider Electric
Model Number	LAP36400
Current Rating	400 Amps
Voltage Rating	600 Volts (also listed as 480 Volts in some specifications, refer to product label for exact application)
Number of Poles	1 (Note: Molded case breakers often come in 1, 2, or 3 pole configurations. The provided data indicates 1 pole, but the image suggests a 3-pole breaker. Always verify with the physical product label.)
Circuit Breaker Type	Standard, Thermal-Magnetic
Item Weight	15.73 pounds
Product Dimensions	17.8 x 12.5 x 8.9 inches
UPC	785901424000

8. Warranty and Support

Schneider Electric products are manufactured to high-quality standards and typically come with a manufacturer's warranty. For specific warranty terms and conditions applicable to your LAP36400 circuit breaker, please refer to the documentation included with your purchase or visit the official Schneider Electric website.

For technical support, service, or inquiries regarding this product, please contact Schneider Electric customer service or an authorized service center. Contact information can usually be found on the manufacturer's website or product packaging.

Visit Schneider Electric Official Website

Related Documents - LAP36400

	[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 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.
	[QO Miniature Circuit Breakers: End of Life Instructions and Disposal Guide] Comprehensive guide for the responsible end-of-life disposal and recycling of Schneider Electric QO Miniature Circuit Breakers, detailing components, mass, dimensions, and recyclability potential for treatment facilities.