

Eaton KD1-1

Eaton Heinemann KD1-1 Thermal Circuit Breaker

USER MANUAL

Model: KD1-1

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Eaton Heinemann KD1-1 Thermal Circuit Breaker. Please read this manual thoroughly before proceeding with any installation or operation.

The KD1-1 is a single-pole (1P) thermal circuit breaker designed for protection in electrical circuits up to 250V AC and 50V DC, with a current rating of 1 Ampere. It is typically panel-mounted and features a push-to-reset mechanism.

2. Safety Information

WARNING: Risk of Electric Shock or Fire.

- Installation and servicing must be performed by qualified personnel only.
- Always disconnect power to the circuit before installing, servicing, or removing the circuit breaker.
- Ensure that the circuit breaker's voltage and current ratings match the application requirements.
- Do not use this device in life-support applications or where failure could result in serious injury or property damage.
- Adhere to all local and national electrical codes and regulations.

3. Setup and Installation

The KD1-1 circuit breaker is designed for panel mounting.

1. **Preparation:** Ensure the power supply to the circuit is completely disconnected and verified with a voltage tester.
2. **Mounting:** Insert the circuit breaker into the designated panel cutout. Secure it according to the panel design, typically using a mounting nut or clip (not included).
3. **Wiring:** Connect the circuit wires to the appropriate terminals on the circuit breaker. Ensure all connections are tight and secure to prevent loose contacts, which can cause overheating or arcing. Refer to the wiring diagram for your specific application.

4. **Verification:** Double-check all connections and ensure the circuit breaker is firmly mounted before restoring power.



Figure 1: Eaton Heinemann KD1-1 Thermal Circuit Breaker. This image displays the cylindrical body of the circuit breaker with two terminals extending from one end. The other end features a white circular button labeled 'PUSH RE-CIRK-IT', indicating its reset function.

4. Operating Instructions

The KD1-1 is a thermal circuit breaker designed to protect electrical circuits from overcurrent conditions. It operates automatically and can be manually reset.

1. **Normal Operation:** Under normal operating conditions, the circuit breaker allows current to flow through the circuit.
2. **Overcurrent Trip:** If an overcurrent condition (e.g., overload or short circuit) occurs, the internal thermal mechanism will heat up and trip, interrupting the circuit to prevent damage to equipment or wiring. When tripped, the white 'PUSH RE-CIRK-IT' button will typically pop out.
3. **Resetting the Breaker:** After the circuit breaker trips, identify and resolve the cause of the overcurrent. Once the fault is cleared, firmly press the 'PUSH RE-CIRK-IT' button (as shown in Figure 1) to reset the breaker and restore power to the circuit. If the breaker immediately trips again, do not force it; investigate the underlying electrical issue further.

5. Maintenance

The Eaton Heinemann KD1-1 Thermal Circuit Breaker requires minimal maintenance.

- **Regular 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 abrasive cleaners or solvents.
- **Avoid Tampering:** Do not attempt to open, modify, or repair the circuit breaker. Doing so will void any warranty and could compromise safety.

6. Troubleshooting

If you encounter issues with your KD1-1 circuit breaker, consider the following:

- **Breaker Trips Frequently:**
 - **Overload:** The circuit may be drawing more current than the breaker's 1 Ampere rating. Reduce the load on the circuit.
 - **Short Circuit:** A direct connection between live and neutral/ground wires can cause a sudden surge. Inspect wiring for damage or faulty appliances.

- **Faulty Appliance:** Disconnect appliances one by one to identify a defective unit.
- **Breaker Does Not Reset:**
 - Ensure the overcurrent condition has been resolved. The breaker may not reset if the fault is still present.
 - If the breaker still does not reset after clearing the fault, it may be damaged and require replacement.
- **No Power to Circuit:**
 - Check if the breaker has tripped (button popped out).
 - Verify the main power supply to the panel.
 - Inspect wiring connections for looseness or damage.

If troubleshooting steps do not resolve the issue, consult a qualified electrician.

7. Specifications

Parameter	Value
Brand	Eaton Heinemann
Model	KD1-1
Current Rating	1 Ampere
Voltage Rating (AC)	250V
Voltage Rating (DC)	50V
Number of Poles	1
Mounting Type	Panel Mount
Circuit Breaker Type	Thermal
RoHS Compliant	Yes

8. Warranty Information

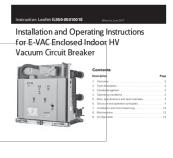
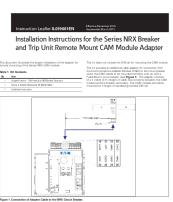
Eaton products are manufactured to high standards. For specific warranty terms and conditions applicable to the KD1-1 Thermal Circuit Breaker, please refer to the official Eaton warranty documentation provided at the time of purchase or visit the Eaton website. Warranty coverage typically applies to defects in materials and workmanship under normal use.

9. Support

For technical assistance, product inquiries, or further support, please contact Eaton customer service or visit the official Eaton website. When contacting support, please have your product model number (KD1-1) available.

Eaton Official Website: www.eaton.com

Related Documents - KD1-1

 EATON Power Solutions	<p><u>NZM 1-4</u> NZM 1-4</p>
 EATON User Manual Magnum 1812.900A	<p><u>Eaton Magnum LV-Air Circuit Breaker User Manual (1812.900A)</u> Comprehensive user manual for the Eaton Magnum LV-Air Circuit Breaker (model 1812.900A), detailing installation, operation, maintenance, troubleshooting, and renewal parts. Covers fixed and drawout configurations with electronic tripping systems.</p>
 EATON	<p><u>Eaton E-VAC HV Vacuum Circuit Breaker Installation and Operating Instructions</u> This guide provides essential installation, operation, maintenance, and technical details for the Eaton E-VAC Enclosed Indoor High Voltage Vacuum Circuit Breaker (Model IL550-0501001E), ensuring safe and efficient use in industrial and power grid applications.</p>
 EATON Power Secure Selection Guide	<p><u>Eaton Power Secure Selection Guide: Circuit Breakers and Motor Control Solutions</u> Discover Eaton's comprehensive Power Secure Selection Guide, featuring Air Circuit Breakers (PSL Series), Molded Case Circuit Breakers (PDC, BZM Series), Miniature Circuit Breakers (E6X Series), and D-Line Series for Motor Control & Protection. Find detailed product specifications, technical data, and selection information for electrical distribution and protection needs.</p>
 EATON	<p><u>Installation Instructions for Eaton Series NRX Breaker and Trip Unit Remote Mount CAM Module Adapter</u> This document provides installation instructions for the Eaton Series NRX Breaker and Trip Unit Remote Mount CAM Module Adapter (IL019001EN). It details kit contents, connection procedures to the NRX circuit breaker and CAM module, and includes descriptions of diagrams illustrating the setup. Essential for proper remote mounting of CAM modules with Series NRX breakers.</p>

	<p><u>LG & PD3 Frame Circuit Breaker Walking Beam Interlock Installation Instructions</u></p> <p>Instruction leaflet detailing the installation, assembly, and adjustment of the Eaton LG & PD3 frame circuit breaker walking beam interlock. Includes parts list, diagrams, and safety warnings.</p>
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