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Westinghouse EHB2020 4989D52G19

Westinghouse EHB2020 4989D52G19 Circuit Breaker Instruction Manual

Model: EHB2020 4989D52G19 | 2-Pole, 20A, 480VAC

1. Introduction

This manual provides essential information for the safe installation, operation, and maintenance of the Westinghouse EHB2020 4989D52G19 Circuit Breaker. Please read this manual thoroughly before attempting any installation or operation. Retain this manual for future reference.
The Westinghouse EHB2020 4989D52G19 is a 2-pole, 20 Amp, 480VAC circuit breaker designed to protect electrical circuits from overcurrents and short circuits. It is suitable for industrial and commercial applications.

2. Safety Information

WARNING: Electrical shock hazard. Installation and servicing must be performed by qualified personnel only. Disconnect power before working on or near the circuit breaker.

- Always ensure the main power supply is disconnected before installing, removing, or servicing the circuit breaker.
- Use appropriate personal protective equipment (PPE) such as insulated gloves and safety glasses.
- Verify all connections are secure and properly torqued according to local electrical codes and manufacturer specifications.
- Do not use this circuit breaker in environments exceeding its specified temperature or humidity ratings.
- Never bypass or tamper with the circuit breaker's protective mechanisms.

3. Product Overview

The Westinghouse EHB2020 4989D52G19 circuit breaker features a robust design for reliable circuit protection. Key components include the operating handle, trip indicator, and terminal connections.

Figure 1: Front view of the Westinghouse EHB2020 4989D52G19 Circuit Breaker, showing the operating handle and rating label.

Figure 2: Detailed view of the circuit breaker's label, indicating model number EHB2020, current rating 20A, 2-pole configuration, and voltage ratings (480 VAC, 250 VDC).

4. Specifications

Specification	Value
Brand	Westinghouse
Model Number	EHB2020 4989D52G19
Current Rating	20 Amps
Voltage Rating	480 Volts AC, 250 Volts DC
Number of Poles	2
Circuit Breaker Type	Standard (Magnetic)
Product Dimensions	23 x 16 x 18 inches (approximate shipping dimensions)
Item Weight	6 pounds
Interrupting Ratings	10,000 Amps @ 240 Volt, 14,000 Amps @ 480 Volt

5. Setup and Installation

Installation of this circuit breaker must be performed by a qualified electrician in accordance with all national and local electrical codes. Improper installation can result in serious injury or property damage.

5.1 Pre-Installation Checks

- Verify that the circuit breaker's ratings (voltage, current, number of poles) match the requirements of the electrical system.

- Inspect the circuit breaker for any physical damage. Do not install damaged units.
- Ensure the panelboard or enclosure is suitable for the circuit breaker's dimensions and type.

5.2 Installation Steps

1. **Disconnect Power:** Turn off the main power supply to the electrical panel where the circuit breaker will be installed. Verify zero voltage with a multimeter.
2. **Mounting:** Securely mount the circuit breaker into the designated slot in the electrical panel. Ensure it is properly seated and latched.
3. **Wire Connections:** Connect the load and line wires to the appropriate terminals on the circuit breaker. Refer to the wiring diagram of your electrical panel for correct connections.

Figure 3: Top view showing the line terminals of the circuit breaker where incoming power is connected.

4. **Torque Connections:** Tighten terminal screws to the manufacturer's specified torque settings to ensure proper electrical contact and prevent overheating.
5. **Verify Installation:** Double-check all connections and ensure no loose wires or debris are present.
6. **Restore Power:** Once installation is complete and verified, restore power to the electrical panel.

Figure 4: Bottom view showing the load terminals of the circuit breaker where outgoing power to the circuit is connected.

6. Operating Instructions

The circuit breaker operates with a simple ON/OFF mechanism. It is designed to automatically trip (turn off) in response to overcurrent or short-circuit conditions.

- **Turning ON:** Push the operating handle firmly to the 'ON' position.
- **Turning OFF:** Push the operating handle firmly to the 'OFF' position.
- **Tripped Condition:** If the circuit breaker trips, the handle will move to an intermediate or 'TRIPPED'

position (often between ON and OFF). To reset a tripped breaker, first push the handle completely to the 'OFF' position, then push it to the 'ON' position.

CAUTION: If the circuit breaker repeatedly trips, do not continuously reset it. This indicates an electrical fault that requires investigation by a qualified electrician.

7. Maintenance

The Westinghouse EHB2020 4989D52G19 circuit breaker requires minimal maintenance. Regular inspections are recommended to ensure continued safe operation.

- **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.
- **Connection Checks:** During routine electrical system maintenance, verify that terminal connections remain tight.

WARNING: Always disconnect power before performing any maintenance or inspection.

8. Troubleshooting

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

8.1 Circuit Breaker Trips Frequently

- **Overload:** The circuit may be drawing too much current. Disconnect some appliances or devices from the circuit.
- **Short Circuit:** A direct connection between live and neutral/ground wires. This requires immediate investigation by an electrician.
- **Ground Fault:** Current leaking to the ground. This also requires professional diagnosis.
- **Faulty Appliance:** A defective appliance connected to the circuit could be causing the trip. Unplug all devices and plug them back in one by one to identify the faulty one.

8.2 Circuit Breaker Does Not Reset

- **Persistent Fault:** If an overload or short circuit is still present, the breaker will not reset. Address the underlying electrical issue first.
- **Damaged Breaker:** The circuit breaker itself may be faulty and require replacement.

If troubleshooting steps do not resolve the issue, contact a qualified electrician for assistance.

9. Warranty and Support

For warranty information and technical support regarding your Westinghouse EHB2020 4989D52G19 Circuit Breaker, please refer to the official Westinghouse website or contact their customer service department. Keep your purchase receipt as proof of purchase.
Westinghouse Customer Support: Please visit the official Westinghouse website for contact details and support resources.

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