

SIEMENS B170

Siemens B170 70-Amp Single Pole 120-Volt Circuit Breaker Instruction Manual

Model: B170

1. INTRODUCTION

This manual provides essential information for the safe and proper installation, operation, and maintenance of the Siemens B170 70-Amp Single Pole 120-Volt 10KAIC Bolt-in Circuit Breaker. The Siemens B170 is a thermal-magnetic circuit breaker designed for panel board mounting, offering protection against overcurrents and short circuits in electrical systems.

Please read this manual thoroughly before attempting any installation or operation to ensure personal safety and optimal product performance.

2. SAFETY INFORMATION

WARNING: Risk of electric shock or fire. Installation and servicing of this circuit breaker must be performed by qualified electrical personnel only. Always disconnect power at the main service panel before working on electrical equipment.

- Ensure all local and national electrical codes are followed during installation.
- Do not install a circuit breaker that appears damaged.
- Verify the voltage and current ratings of the circuit breaker match the requirements of the electrical system.
- Use appropriate personal protective equipment (PPE) when working with electrical systems.
- Never bypass or tamper with the circuit breaker's protective mechanisms.

3. PRODUCT OVERVIEW

The Siemens B170 circuit breaker is a single-pole device rated for 70 Amperes at 120 Volts. It features a 10KAIC interrupting rating and is designed for bolt-in connection to compatible Siemens panel boards. It is UL Listed, ensuring compliance with safety standards.



70

CU-AL 75°C WIRE				1 Pole Type / Tipo BL	
AWG.				Interrupting Rating	
8	6-4	3-2/0	50	MAX. RMS. SYM. AMPS.	
lb - in				10,000 120/240 V~	
40	45			Circuit Breaker	
LISTED SIEMENS				Issue No. L-5538	
HACR Type, 40°C					
					



Figure 1: Front view of the Siemens B170 circuit breaker, showing the 70-Amp rating and the ON/OFF toggle. The UL listing mark is visible, indicating compliance with safety standards.



Figure 2: Side view of the Siemens B170 circuit breaker, illustrating the bolt-in mounting points and the wire strip gauge for proper conductor preparation.



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SIEMENS INDUSTRY, INC.
NEW BRUNSWICK, NJ 07003
ASSEMBLED IN MEXICO

Usarse solamente en gabinetes listados
Interrupcion Termomagnético
Valor de Interrupcion 10 KA Eficaz Max. Sim.
Modelo B170

NOM



60Hz

1

Polos

70A

120/240V



83643

26351

2

24A050515



Figure 3: Side view of the Siemens B170 circuit breaker, displaying the product label with manufacturing details, model number, and electrical ratings.

4. INSTALLATION INSTRUCTIONS

The Siemens B170 circuit breaker is designed for bolt-in installation in compatible Siemens panel boards. Always ensure the main power supply to the panel board is disconnected before beginning installation.

Installation Steps:

1. **Power Disconnection:** Turn off the main circuit breaker at the service panel to completely de-energize the panel board. Verify with a voltage tester that no power is present.
2. **Panel Access:** Remove the panel board cover to expose the bus bars and breaker slots.
3. **Breaker Placement:** Align the Siemens B170 circuit breaker with the desired slot on the panel board's bus bar. The bolt-in design requires careful alignment.
4. **Secure Connection:** Bolt the circuit breaker securely to the bus bar using the provided hardware. Ensure a tight and reliable electrical connection.
5. **Wire Connection:** Strip the insulation from the circuit wire according to the strip gauge indicated on the breaker (refer to Figure 2). Insert the wire into the terminal and tighten the screw firmly to the manufacturer's specified torque.
6. **Panel Cover:** Once all connections are secure and verified, replace the panel board cover.
7. **Power Restoration:** Restore power to the main service panel.

Consult the panel board's instruction manual for specific details regarding breaker slot compatibility and wiring diagrams.

5. OPERATION

The Siemens B170 circuit breaker operates as a protective device for your electrical circuit. It has two primary states: ON and OFF, and a tripped state.

- **ON Position:** When the toggle is in the 'ON' position, power is supplied to the circuit.
- **OFF Position:** Moving the toggle to the 'OFF' position manually disconnects power to the circuit.
- **Tripped Position:** In the event of an overcurrent or short circuit, the breaker will automatically trip. The toggle will move to an intermediate position, typically between 'ON' and 'OFF', or fully to 'OFF' depending on the design.

Resetting a Tripped Breaker:

1. First, identify and correct the cause of the trip (e.g., unplug overloaded appliances).
2. Move the breaker toggle firmly to the full 'OFF' position. You may feel a click.
3. Then, move the toggle firmly to the 'ON' position.
4. If the breaker immediately trips again, do not attempt to reset it further. Contact a qualified electrician.

6. MAINTENANCE

Circuit breakers generally require minimal maintenance. However, periodic inspection is recommended to

ensure continued safe operation.

- **Visual Inspection:** Annually inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections. Ensure the toggle moves freely.
- **Cleanliness:** Keep the area around the circuit breaker and inside the panel board clean and free of dust or debris.
- **Connection Check:** With power disconnected, periodically check the tightness of the wire terminals. Loose connections can lead to overheating.
- **Testing:** Do not routinely test the trip mechanism by intentionally creating a fault. This can degrade the breaker over time.

Any maintenance beyond visual inspection and cleaning should be performed by a qualified electrician.

7. TROUBLESHOOTING

If your Siemens B170 circuit breaker is not functioning as expected, consider the following common issues:

- **Breaker Trips Frequently:** This indicates an overload or a short circuit on the protected circuit. Unplug appliances, reduce the load, or inspect for damaged wiring. If the problem persists, consult an electrician.
- **Breaker Will Not Reset:** If the breaker immediately trips after being reset, the fault (overload or short circuit) is still present. Do not force the breaker. If no fault is apparent, the breaker itself may be faulty and require replacement by an electrician.
- **No Power to Circuit (Breaker ON):** Check if the main breaker is ON. If the B170 breaker is ON but there's no power, there might be a loose connection, a wiring issue, or a faulty breaker. Contact an electrician.

For any persistent or complex electrical issues, always consult a licensed electrician.

8. SPECIFICATIONS

Feature	Specification
Brand	SIEMENS
Model	B170
Part Number	BL170
Current Rating	70 Amps
Voltage	120 Volts
Number of Poles	1
Circuit Breaker Type	Thermal-Magnetic, Standard
Mounting Type	Panel Mount (Bolt-in)
Interrupting Rating	10KAIC
Certifications	UL Listed
Item Weight	0.25 Pounds

Feature	Specification
UPC / GTIN	00783643263512

9. WARRANTY AND SUPPORT

Siemens strongly recommends against the use of "used" breakers. The installation of used breakers in a Siemens panel will void the warranty on the panel. Siemens does not sell used breakers and has not approved any 3rd party sellers to do so.

For further support, product information, or to explore other Siemens electrical products, please visit the official Siemens store:

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