

ABB S202-C16

ABB S202-C16 Miniature Circuit Breaker User Manual

Model: S202-C16

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the ABB S202-C16 Miniature Circuit Breaker. Please read this manual thoroughly before installation or use and retain it for future reference. This device is designed to protect electrical circuits from overcurrents, which can result from overload or short circuit.

Important Safety Notice: Installation and maintenance of electrical equipment should only be performed by qualified and authorized personnel in accordance with all local and national electrical codes and regulations. Failure to follow these instructions can result in serious injury, death, or property damage.

2. PRODUCT OVERVIEW

The ABB S202-C16 is a 2-pole miniature circuit breaker with a C-curve tripping characteristic and a 16 Amp current rating, designed for 110 Volt systems. It provides reliable protection for various electrical applications.



Figure 1: Front view of the ABB S202-C16 Miniature Circuit Breaker. This image shows the white housing, two black toggle switches for circuit control, and connection terminals.

Key Features:

- 2-Pole design for protection of two conductors.
- C-curve tripping characteristic for general applications.
- 16 Amp rated current.

- Suitable for 110 Volt AC systems.
- Wall mount installation.
- UL and CSA certified.

3. SAFETY INSTRUCTIONS

- Always disconnect power at the main service panel before installing or servicing the circuit breaker.
- Use appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Ensure all wiring connections are tight and secure to prevent overheating and fire hazards.
- Do not use the circuit breaker if it appears damaged.
- Consult a qualified electrician if you are unsure about any part of the installation or operation.
- Adhere to all local and national electrical codes (e.g., NEC in the USA).

4. INSTALLATION (SETUP)

4.1 Tools Required:

- Screwdriver (appropriate size for terminals)
- Wire strippers
- Voltage tester
- Personal Protective Equipment (PPE)

4.2 Installation Steps:

1. **Power Disconnection:** Locate the main service panel and turn off the main circuit breaker to completely de-energize the electrical system. Verify with a voltage tester that power is off.
2. **Mounting:** The S202-C16 is designed for wall mounting. Securely attach the circuit breaker to a suitable mounting surface within an appropriate enclosure, following manufacturer guidelines for panelboard or enclosure installation.
3. **Wiring:**
 - Connect the incoming line wires to the designated line terminals (typically at the top).
 - Connect the outgoing load wires to the designated load terminals (typically at the bottom).
 - Ensure proper wire gauge is used for the 16 Amp rating and 110 Volt system.
 - Tighten all terminal screws to the specified torque settings (refer to device markings if available, otherwise consult general electrical standards).
4. **Verification:** Double-check all connections for tightness and correct polarity. Ensure no bare wires are exposed.
5. **Enclosure Closure:** Close the panelboard or enclosure cover securely.
6. **Power Restoration:** Turn the main circuit breaker back on.

5. OPERATION

The ABB S202-C16 Miniature Circuit Breaker features two toggle switches, one for each pole, to control the flow of electricity.

- **ON Position:** Push the toggle switch(es) fully upwards to the 'ON' position to allow current to flow through the circuit.
- **OFF Position:** Push the toggle switch(es) fully downwards to the 'OFF' position to interrupt current flow and de-energize the circuit.

- **TRIPPED Position:** If an overcurrent (overload or short circuit) occurs, the circuit breaker will automatically trip. The toggle switch(es) will move to an intermediate or 'TRIPPED' position (often center or slightly below center). To reset a tripped breaker, first move the switch(es) fully to the 'OFF' position, then push it/them fully to the 'ON' position.

Note: If the circuit breaker repeatedly trips, do not attempt to force it on. This indicates a persistent fault in the circuit that must be investigated and resolved by a qualified electrician.

6. MAINTENANCE

The ABB S202-C16 Miniature Circuit Breaker is designed for minimal maintenance. However, periodic inspection is recommended to ensure optimal performance and safety.

- **Visual Inspection (Annually):** With power disconnected, visually inspect the circuit breaker for any signs of physical damage, discoloration, loose connections, or corrosion.
- **Cleaning:** If necessary, gently clean the exterior of the circuit breaker with a dry, lint-free cloth. Do not use liquid cleaners or solvents.
- **Terminal Tightness:** Periodically check the tightness of terminal connections, especially after initial installation and during routine electrical system checks. Ensure power is off before checking terminals.

Do not attempt to open or repair the circuit breaker. There are no user-serviceable parts inside. If the device is damaged or malfunctioning, it must be replaced by a qualified professional.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Circuit breaker trips repeatedly.	Overload, short circuit, or ground fault in the circuit.	Disconnect some appliances or devices from the circuit to reduce load. Inspect wiring for damage or short circuits. If the problem persists, consult a qualified electrician to diagnose the fault.
Circuit breaker does not reset.	Persistent fault in the circuit or internal damage to the breaker.	Ensure the switch is moved fully to the 'OFF' position before attempting to reset to 'ON'. If it still won't reset, there is likely a severe fault. Do not force it. Contact a qualified electrician for inspection and replacement if necessary.
Circuit breaker is warm to the touch.	Normal operation under load, or loose connections/overload.	Slight warmth is normal. If excessively hot, immediately turn off power to the circuit. Check for loose terminal connections or an overloaded circuit. Consult an electrician if the issue persists.

8. TECHNICAL SPECIFICATIONS

Brand	ABB
Model Number	S202-C16
Current Rating	16 Amps
Number of Poles	2
Voltage Rating	110 Volts
Circuit Breaker Type	Standard, C-curve
Mounting Type	Wall Mount
Certifications	CSA, UL
Item Weight	4.3 ounces
Package Dimensions	4.52 x 3.34 x 1.65 inches
UPC	662019170664

9. WARRANTY AND SUPPORT

Specific warranty details for the ABB S202-C16 Miniature Circuit Breaker are typically provided at the point of purchase or can be found on the official ABB website. Please refer to your purchase documentation for warranty period and terms. For technical support, product inquiries, or warranty claims, please contact ABB customer service or visit the official ABB website:

- **ABB Official Website:** www.abb.com
- **Customer Service:** Refer to the contact information provided on the ABB website for your specific region.

