

ABB S202M-C16

ABB S202M-C16 Miniature Circuit Breaker Instruction Manual

1. INTRODUCTION

This instruction manual provides essential information for the safe and effective installation, operation, and maintenance of the ABB S202M-C16 Miniature Circuit Breaker. Please read this manual thoroughly before using the product and retain it for future reference. This device is designed to protect electrical circuits from overcurrents, which can result from overload or short circuit.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Failure to follow these instructions can result in serious injury or death.

- Always disconnect power at the main service panel before working with electrical circuits or equipment.
- Ensure that the circuit breaker rating (voltage, current, and breaking capacity) matches the requirements of the electrical system.
- Do not operate the circuit breaker if it appears damaged or has been subjected to excessive force.
- Use appropriate personal protective equipment (PPE) when working with electrical installations.
- Adhere to all local and national electrical codes and regulations.

3. PRODUCT OVERVIEW

The ABB S202M-C16 is a high-quality miniature circuit breaker from the S200M series, designed for reliable protection in various electrical applications. It features a 2-pole configuration, a Type C tripping characteristic, and a rated current of 16 Amperes. This device provides protection against both overloads and short circuits, ensuring the safety and integrity of your electrical system.



Figure 1: The ABB S202M-C16 Miniature Circuit Breaker. This image displays the ABB S202M-C16 Miniature Circuit Breaker. It is a two-pole device with a white casing, featuring a black toggle switch for operation. The front label clearly shows 'ABB', 'S202M', 'C16', '~400V', and '10000' (indicating breaking capacity). The terminals are visible at the top and bottom.

4. SETUP AND INSTALLATION

Installation of the ABB S202M-C16 Miniature Circuit Breaker should be carried out by a qualified electrician in accordance with all applicable electrical codes and standards.

1. **Power Disconnection:** Before beginning any installation, ensure that the main power supply to the electrical panel is completely disconnected and locked out to prevent accidental re-energization.
2. **Mounting:** The S202M-C16 is designed for plug-in mounting. Securely attach the circuit breaker to the DIN rail within the electrical panel. Ensure it is firmly seated and cannot be easily dislodged.
3. **Wiring:** Connect the incoming phase and neutral conductors to the appropriate terminals at the top of the circuit breaker. Connect the outgoing load conductors to the corresponding terminals at the bottom. Ensure all connections are tight and secure to prevent loose contacts and overheating. Refer to the wiring diagram on the device for correct terminal identification.
4. **Verification:** Double-check all wiring connections for correctness and tightness. Ensure no bare wires are exposed.
5. **Panel Closure:** Once installation is complete and verified, close the electrical panel cover.

6. **Power Restoration:** Carefully restore power to the main service panel.

5. OPERATING INSTRUCTIONS

The ABB S202M-C16 Miniature Circuit Breaker is designed for simple operation.

- **Turning On:** To energize the circuit, push the black toggle switch upwards to the 'ON' position.
- **Turning Off:** To de-energize the circuit, push the black toggle switch downwards to the 'OFF' position.
- **Tripping:** In the event of an overload or short circuit, the circuit breaker will automatically trip, moving the toggle switch to an intermediate or 'TRIPPED' position (often indicated by a central position or a visual indicator). This action disconnects power to the protected circuit.
- **Resetting After Trip:** If the circuit breaker trips, first identify and rectify the cause of the overload or short circuit. Once the fault is cleared, fully push the toggle switch to the 'OFF' position, then push it upwards to the 'ON' position to reset the breaker and restore power. If the breaker trips immediately again, do not attempt to reset it repeatedly; consult a qualified electrician.

6. MAINTENANCE

The ABB S202M-C16 Miniature Circuit Breaker is largely maintenance-free. However, periodic inspection is recommended to ensure optimal performance and safety.

- **Visual Inspection:** Periodically inspect the circuit breaker for any signs of physical damage, discoloration, or loose connections. Ensure the toggle switch operates smoothly.
- **Cleaning:** If necessary, gently clean the exterior of the circuit breaker with a dry, lint-free cloth. Do not use abrasive cleaners or solvents. Ensure power is disconnected before cleaning.
- **Professional Check:** For critical installations or if any anomalies are observed, consult a qualified electrician for a professional inspection and testing.

7. TROUBLESHOOTING

If you encounter issues with your ABB S202M-C16 Miniature Circuit Breaker, consider the following troubleshooting steps:

- **Breaker Trips Frequently:**
 - **Overload:** The most common cause. Disconnect some appliances or devices from the circuit to reduce the load.
 - **Short Circuit:** A direct connection between live and neutral/ground wires. This requires immediate investigation by a qualified electrician to locate and repair the fault.
 - **Faulty Appliance:** An appliance connected to the circuit may be defective. Unplug all appliances and plug them back in one by one to identify the faulty device.
- **Breaker Does Not Reset:**
 - Ensure the toggle switch is fully pushed to the 'OFF' position before attempting to push it to 'ON'.
 - If the fault (overload or short circuit) is still present, the breaker will not reset. Clear the fault first.
 - If the breaker still does not reset after clearing the fault, it may be damaged and require replacement by a qualified electrician.
- **No Power to Circuit (Breaker ON):**
 - Check the main service panel for other tripped breakers.

- Verify all connections to the circuit breaker are secure.
- If the issue persists, there may be a wiring fault or a defective breaker. Consult a qualified electrician.

For any issues that cannot be resolved with these steps, contact a qualified electrician or ABB customer support.

8. SPECIFICATIONS

Feature	Specification
Brand	ABB
Model Number	2CDS272001R0164 (S202M-C16)
Current Rating	16 Amps
Circuit Breaker Type	Standard, Type C
Number Of Poles	2
Mounting Type	Plug-In Mount
Package Dimensions	3.36 x 3.08 x 1.37 inches
Weight	8 ounces

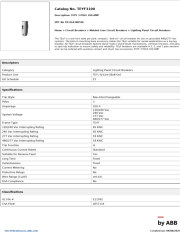
9. WARRANTY AND SUPPORT

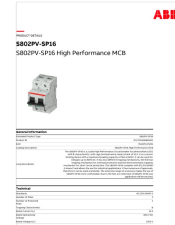




For information regarding warranty coverage, technical support, or service for your ABB S202M-C16 Miniature Circuit Breaker, please refer to the official ABB website or contact ABB customer service directly. Keep your purchase receipt and product model number handy when contacting support.

ABB Official Website: www.abb.com

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Related Documents - S202M-C16

	<p>ABB TEYF3100 3-Pole 100A Circuit Breaker Data Sheet</p> <p>Technical specifications and details for the ABB TEYF3100, a 3-pole, 100 Amp molded case circuit breaker designed for lighting panel applications. Features include bolt-on mounting, quick-make/quick-break mechanisms, and standard trip functions.</p>
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 <p>ABB S802PV-SP16 S802PV-SP16 High Performance MCB</p>	<p>ABB S802PV-SP16 High Performance MCB - Technical Specifications</p> <p>Detailed technical specifications, product information, dimensions, and ordering details for the ABB S802PV-SP16 High Performance Miniature Circuit Breaker (MCB) designed for photovoltaic DC applications.</p>
<p>Outdoor SF₆ Circuit Breaker Type OHB</p>  <p>ABB</p>	<p>ABB Outdoor SF6 Circuit Breaker Type OHB: Installation, Service, and Maintenance Manual</p> <p>This comprehensive manual provides detailed instructions for the installation, service, and maintenance of the ABB Outdoor SF6 Circuit Breaker, Type OHB. It covers product description, safety precautions, operational procedures, and troubleshooting for this medium voltage electrical equipment.</p>
 <p>ABB VD4 Installation and service instructions 12 - 18 kV - 400 - 1250 A - 10 - 50 kA</p>	<p>ABB VD4 Circuit Breaker Installation and Service Instructions</p> <p>Comprehensive guide for the installation and service of ABB VD4 vacuum circuit breakers, covering safety, handling, operation, and technical specifications.</p>
<p>Catálogo técnico</p> <p>Emax</p> <p>Disruptor aberto de baixa tensão</p>  <p>ABB</p>	<p>ABB Emax Low Voltage Air Circuit Breakers Technical Catalog</p> <p>Explore the technical catalog for ABB's Emax series of low voltage air circuit breakers. This document details features, models, installation, protection relays, accessories, applications, dimensions, circuit diagrams, and ordering codes for the Emax line, emphasizing innovation, performance, and reliability.</p>
 <p>ABB VM1 Vacuum circuit breaker</p>	<p>ABB VM1 Vacuum Circuit Breaker Instruction Manual</p> <p>Comprehensive instruction manual for the ABB VM1 vacuum circuit breaker, detailing its structure, function, installation, operation, maintenance, and technical specifications for medium voltage electrical systems.</p>