

Schneider Electric A9FDD225

Schneider Electric A9FDD225 iARC 1P+N 25A AFDD Arc Fault Detection Device Circuit Breaker User Manual

Model: A9FDD225 | Brand: Schneider Electric

INTRODUCTION

This manual provides comprehensive instructions for the safe and effective installation, operation, and maintenance of the Schneider Electric A9FDD225 iARC 1P+N 25A AFDD (Arc Fault Detection Device) Circuit Breaker. Please read this manual thoroughly before attempting any installation or operation to ensure proper functionality and safety.

The A9FDD225 is designed to detect and mitigate arc faults, providing enhanced protection against electrical fires in residential and commercial installations. It combines the functions of a miniature circuit breaker (MCB) with arc fault detection capabilities.

SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and maintenance must be performed by qualified personnel only. Disconnect power before working on the device.

- Always ensure the main power supply is disconnected before installation, wiring, or maintenance.
- Follow all local and national electrical codes and regulations.
- Do not operate the device if it appears damaged.
- Ensure proper grounding as per electrical standards.
- This device is designed for indoor use in dry environments.

PRODUCT OVERVIEW

The Schneider Electric A9FDD225 is an integrated Arc Fault Detection Device and Miniature Circuit Breaker. It offers protection against overcurrents (overload and short-circuit) and series/parallel arc faults.

Key Features:

- **Voltage:** 230 V AC
- **Current:** 25 A
- **Poles:** 1P+N (Single Pole + Neutral)
- **Mounting:** DIN Rail
- Integrated arc fault detection for enhanced fire protection.
- Overload and short-circuit protection.

Components:

Refer to the image below for a visual representation of the device components.



Figure 1: Front view of the Schneider Electric A9FDD225 AFDD Circuit Breaker, showing the toggle switch, test button, and indicator window.

SETUP AND INSTALLATION

The A9FDD225 is designed for DIN rail mounting. Ensure the electrical panel is de-energized before proceeding.

1. **Power Disconnection:** Turn off the main power supply to the electrical panel where the AFDD will be installed. Verify with a voltage tester that no power is present.
2. **Mounting:** Clip the AFDD onto the DIN rail in the designated slot within the electrical panel. Ensure it

is securely fastened.

3. Wiring:

- Connect the incoming phase (L) wire to the top terminal marked 'L'.
- Connect the incoming neutral (N) wire to the top terminal marked 'N'.
- Connect the outgoing phase (L) wire to the bottom terminal marked 'L'.
- Connect the outgoing neutral (N) wire to the bottom terminal marked 'N'.
- Ensure all connections are tight and secure to prevent loose contacts and overheating.

4. **Verification:** Double-check all wiring connections against the wiring diagram (if available in your panel documentation) and ensure no bare wires are exposed.

5. **Power Restoration:** Once installation is complete and verified, restore power to the electrical panel.

OPERATING INSTRUCTIONS

Turning On/Off:

- **To Turn On:** Push the toggle switch upwards to the 'ON' position. The indicator window should show green (or similar indication of normal operation).
- **To Turn Off:** Push the toggle switch downwards to the 'OFF' position.

Test Function:

The AFDD is equipped with a test button to verify its arc fault detection functionality. It is recommended to perform this test monthly.

1. Ensure the AFDD is in the 'ON' position and power is supplied.
2. Press and hold the 'TEST' button. The AFDD should trip, moving the toggle switch to the 'OFF' position.
3. Release the 'TEST' button.
4. To restore power, reset the AFDD by pushing the toggle switch fully down to 'OFF' and then back up to 'ON'.
5. If the AFDD does not trip during the test, it may be faulty and should be replaced by a qualified electrician.

MAINTENANCE

The Schneider Electric A9FDD225 AFDD is designed for maintenance-free operation under normal conditions. However, periodic checks are recommended:

- **Monthly Test:** Perform the test function as described in the "Operating Instructions" section to ensure the arc fault detection mechanism is working correctly.
- **Visual Inspection:** Periodically inspect the device for any signs of physical damage, discoloration, or loose connections. Any issues should be addressed by a qualified electrician.
- **Cleaning:** If necessary, gently wipe the exterior of the device with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure power is off before cleaning.

TROUBLESHOOTING

Problem	Possible Cause	Solution
AFDD trips frequently.	Overload, short-circuit, or arc fault detected.	Disconnect appliances from the circuit to identify the faulty one. Check for damaged wiring or appliances. If an arc fault is suspected, consult a qualified electrician to inspect the wiring.
AFDD does not reset.	Persistent fault on the circuit, or internal device fault.	Ensure all loads are disconnected from the circuit. Try resetting again (fully down then up). If it still doesn't reset, contact a qualified electrician.
Test button does not trip the AFDD.	Device malfunction.	The AFDD is faulty and needs to be replaced by a qualified electrician.

SPECIFICATIONS

Parameter	Value
Model Number	A9FDD225
Brand	Schneider Electric
Rated Voltage (AC)	230 Volts
Rated Current	25 Amperes
Number of Poles	1P+N
Mounting Type	DIN Rail
Material	Plastic
Product Dimensions (L x W x H)	62 x 38 x 22 cm
Weight	220 grams

WARRANTY AND SUPPORT

For specific warranty information, please refer to the documentation provided with your purchase or visit the official Schneider Electric website. Schneider Electric products are typically covered by a manufacturer's warranty against defects in materials and workmanship.

For technical support, service, or to report a faulty device, please contact your local Schneider Electric representative or authorized distributor. Ensure you have the model number (A9FDD225) and purchase details available when seeking support.

Online Resources: For additional information, product updates, and FAQs, please visit the [Schneider Electric official website](#).

