

Arc Fault Detection Devices (AFDD)



⚠️ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Isolate, lock off and label the power sources before and during the installation and the maintenance.

Failure to follow these instructions will result in death or serious injury.



The installer must ensure that all electrical connections are tight and that satisfactory earthing has been achieved.

These installation instructions must be handed by the end user according to IEC/EN 62606 and IEC/EN 61009-1 standard.

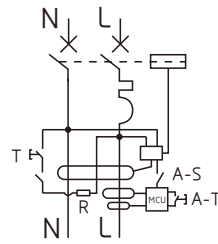
1 Certificate

We, Oldlang Electric, hereby declare that our product Description: Arc Fault Detection Devices (AFDD) Range: VDA14-32 Brand: Oldlang is tested in our factory as per routine tests stated in the European Standard IEC/EN 62606 and the European Standard IEC/EN 61009-1.

Stamp of the manufacturer for the technical quality control.



2 Description

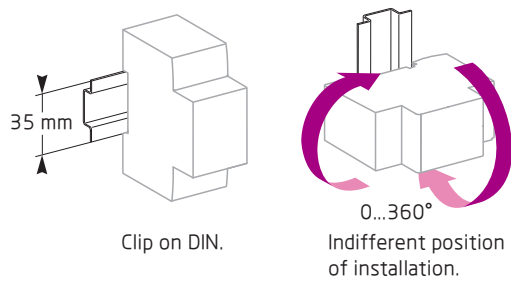


IEC/EN 62606
IEC/EN 61009-1

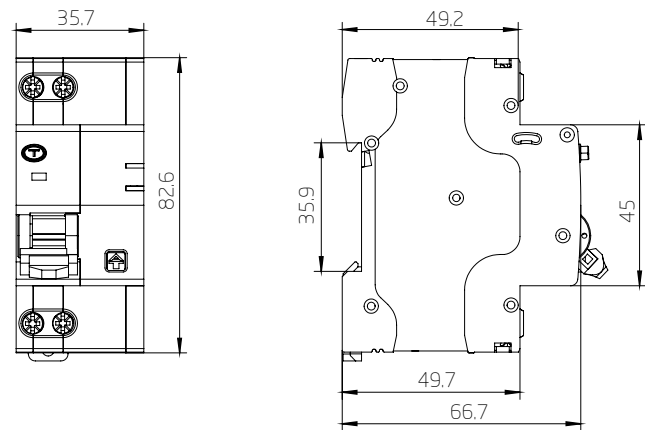
Arc Fault Detection Devices (AFDD) provides:

- Protection of persons against electric shock by direct contact (30 mA): electrical standard IEC 61009-1,
- Protection of persons against electric shock by indirect contact (100 mA, 300 mA),
- Protection of building and equipment against fire ignition by leakage currents (300 mA),
- OFF position of the toggle ascertains disconnection of downstream part from power source,
- A test button (on the front face above the toggle) allows to check healthy functioning of the AFDD.

3 Installation



4 Dimensions



ALL THE DIMENSIONS ARE IN MM

5 Connection

NOTICE

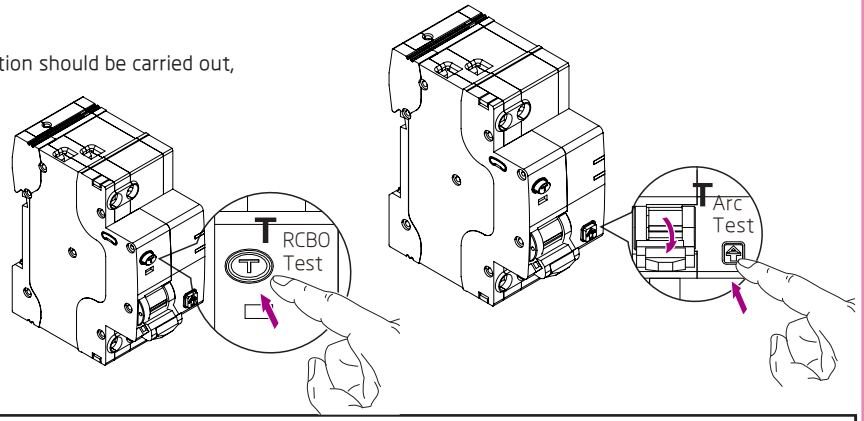
HAZARD OF IMPROPER OPERATION

- Protect, as per Standard IEC/EN 61009-1 and 62606, each VDA14-32 AFDD by suitable overcurrent protection device. An Oldlang's MCB fitted upstream ensures this protection and compliance to standard.
- To ensure the correct operation of VDA14-32 AFDD, both the live and neutral conductors must be connected to the device. Failure to follow these instructions can result in equipment damage.

VDA14-32 AFDD	10 mm	14 mm	1...35 mm	3.5 N.m	6.5 mm PZ2

6 Test

1. A test for the effectiveness of the AFDD in the protected installation should be carried out, periodically, as detailed in applicable maintenance standards.
2. To test the operation of the AFDD after installation :
 - AFDD must be in ON position and energised,
 - Press the test button on the front of the device,
 - The AFDD should trip immediately.
 Failure to do so indicates either no supply to the AFDD or a faulty device.



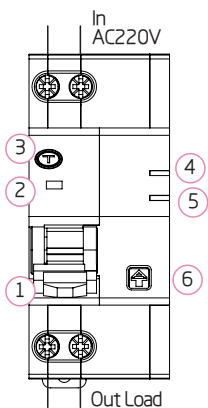
NOTICE

HAZARD OF IMPROPER OPERATION
Do not use test button to switch OFF AFDD.
Failure to follow these instructions can result in equipment damage.

7 Technical characteristics

Main Characteristics		
Tripping threshold (IΔn)	30 mA, 100 mA, 300 mA	50% to 100% of IΔn
Voltage rating (Ue)	1P+N	240 Va , 50 Hz
Current rating (In)	1~32A	
Additional characteristics		
Degree of protection: Device only		IP20
Electrical Endurance		4 000 cycles
Mechanical endurance		5 000 cycles
Operating temperature		-5°C ...+ 55°C
Storage temperature		-25°C ...+ 85°C
Constituent materials		Ro HS 2003 compliant

8 Method of use



Steps	①	②	③	④	⑤	⑥
0, Connect the power and load as shown on the left	Down, OFF	Green		Not bright	Not bright	
1, AFDD closing: ON	Up, ON	Red		Green	★	
2, Test the RCBO function: Press the test button ③	Down, OFF	Green	Down	Not bright	Not bright	
3, Test the Arc fault function: Press the test button ⑥	Down, OFF	Green		Not bright	Red flash	Down

★: ⑤

Red is bright: AFDD detects a faulty arc and protects it, thus AFDD automatically cuts off the circuit.

Recovery method: Recovery method: AFDD is OFF, long press Arc test and do not release the test button ⑥, then close AFDD, ① goes up, and then release the test button ⑥ when AFDD is closed. At this time, red light will appear on ⑤. After 3S, AFDD will automatically switch on. Close AFDD again, press Arc Test button ⑥ and release it quickly. AFDD will break automatically. OK.

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