:hager

BS EN 61009-1 **GB**
BS EN 62606

ARRxxxU / ARLxxU
RCBO with dangerous arc detection

RCBO-AFDD 1M 6A - 32A
B and C curve 6kA type A 30mA

B curve	C curve
ARR906U	ARR956U
ARR910U	ARR960U
ARR916U	ARR966U
ARR920U	ARR970U
ARR925U	ARR975U
ARR932U	ARR982U

RCBO-AFDD 1M 6A - 32A
B and C curve 6kA type A 30mA LFL

B curve	C curve
ARL906U	ARL956U
ARL910U	ARL960U
ARL916U	ARL966U
ARL920U	ARL970U
ARL925U	ARL975U
ARL932U	ARL982U

> **Information**
> For more Information, scan the QR-Code on the product.
>
> For further technical information and for installation in Hager Distribution Board, review the Installation Guidance Notes available in the products download section on Hager website.
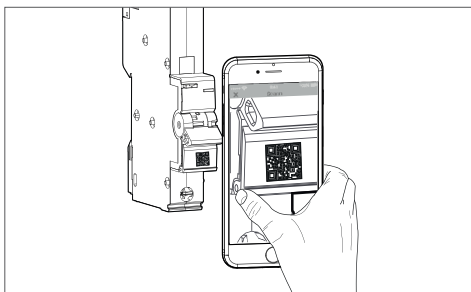
Safety notice

The AFDD (Arc Fault Detection Device) may only be installed, connected and serviced by a qualified electrician.

Before mounting, the AFDD must be checked for external damage. If any damage or other defect is found, the device must not be mounted.

The national regulations, safety regulations and installation standards BS 7671 must be observed.

RCD characteristics 5 Idn compliance (according to table 1 & 2 BS EN 61009-1) for RCDs.
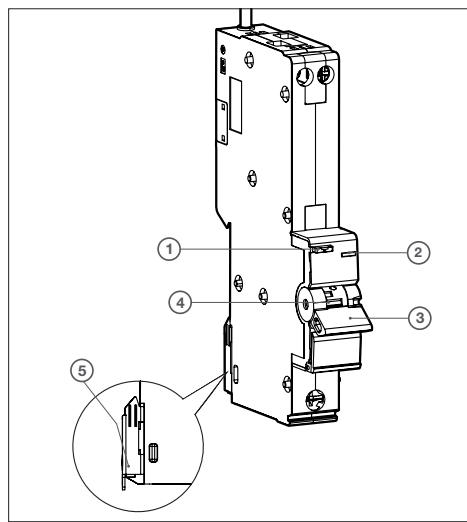
Design and layout of the device

Fig 1: Layout of the device RCBO-AFDD

① Test button
② LED status display
③ Handle
④ Yellow flag
⑤ Mounting metal rail clip

Function

RCBO-AFD in 1 module ARRxxxU is a single device consisting of a miniature circuit breaker (MCB) unit and residual current detection (RCD) unit with integrated Arc fault detection (AFD) unit (3 in 1).

The AFDD mitigates the risk of a fire in the final electrical circuits of a fixed installation due to arcing fault currents, which under certain conditions present a fire ignition risk due to dangerous arc fault.

Tools

		LINE	LOAD
	(mm²)	1 to 16 ▢	1 to 25 ▢
		12 mm	10 mm
		PZ2	PZ2
		3,5 Nm	2,4 Nm

Fig 2: Tools

Information for electricians

Installation and electricial connection

> ⚠ **DANGER !**
> Electric shock when touching live parts!
> Electric shock can lead to death!
> ● Before commencing work ensure suitable isolation procedures have been followed.
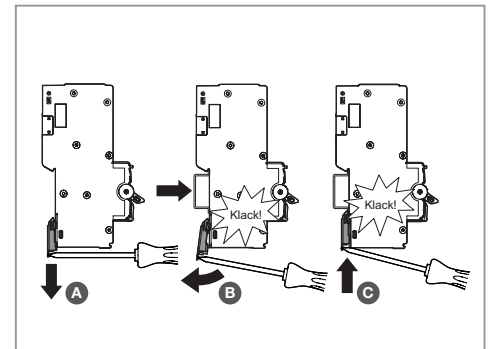
Mount device

Fig 3: Mounting the RCBO-AFDD

● Open the rail clip.
● Insert the AFDD until it is connected.
● Press the metal clamp down.
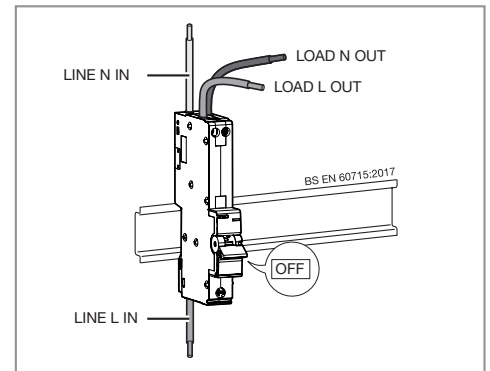 The AFDD is fixed on the rail.

Connect device

LINE N IN
LINE L IN
LOAD N OUT
LOAD L OUT
BS EN 60715:2017
OFF

Fig 4: Connect the RCBO-AFDD

Wiring diagram

Line out   N out
RCD + AFD
Line in   N in

Fig 5: Wiring diagram

Hager Electro SAS-BP3 67215 OBERNAI CEDEX-FRANCE // Hager LTD, Hortonwood 50, TELFORD-TF1 7FT-UK

Disassembly

1

2

3

Testing

The test button **T** is used for testing the device. The AFDD should trip following a short press of the test button. Following this the device can be switched on again.

Test device

> ⚠ **ATTENTION !**
>
> Insulation tests at 500V DC may damage this product!
>
> Do this test only when the handle is off.
>
> If the handle is OFF you don't have to disconnect the cable.

> ℹ **Notice**
>
> The AFDD function must be tested after installation.The supply voltage must be present.
>
> The RCBO-AFDD must trip within one second. If the device does not trip, it must be replaced by an competent electrician.
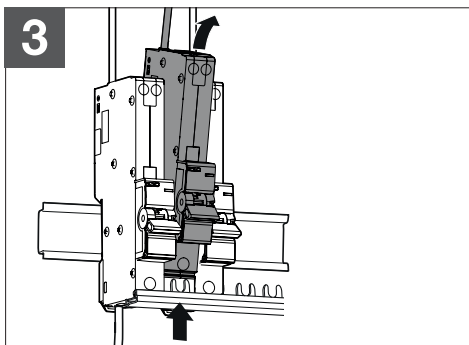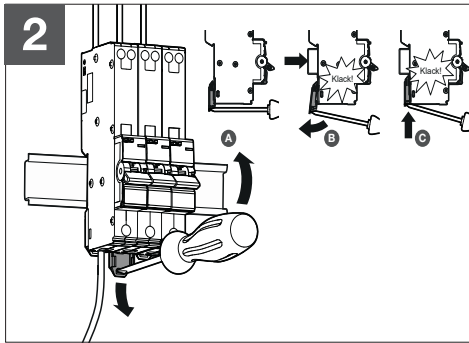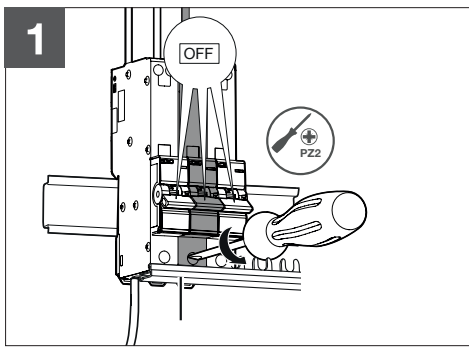

Fig 6: Testing the device

● Short press the test button **T**. The RCBO-AFDD tripped, i.e. the circuit must switch off.

> ℹ **Notice**
>
> If the AFDD does not trip, check the status of the LED (**table 1**).

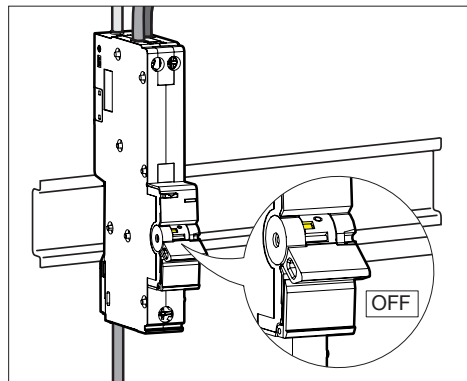### LED status for troubleshooting

Fig 7: Handle position during testing: OFF

The handle is in the **OFF** position.

● Keep the test button **T** pressed, to open the color code.

INDICATOR		STATE
▬ (green)	Steady GREEN	AFDD is ON
▭	LED is OFF	AFDD is OFF
(blinking red/green)	Blinking RED/GREEN + yellow flag absence	AFDD manual tripped
(blinking red/green)	Blinking RED/GREEN + yellow flag presence	Overload or Short-Circuit
▬ (red)	Steady RED	Residual current fault
(blinking red/yellow)	Blinking RED/YELLOW	Series arc fault
(blinking red)	Blinking RED	Parallel arc fault
▬ (yellow)	Steady YELLOW	Overvoltage
(blinking yellow)	Blinking YELLOW	Internal failure

Table 1: LED status display for a standard troubleshooting

> ℹ **Notice**
>
> In case of an internal failure, replace the AFDD and contact the Hager technical support.

Connection to mobilephone

A mobile phone is required to use those functions. Refer to the mobility applications store to know the OS compatibility.

> ℹ **Notice**
>
> Using the connected functions with your mobile phone requires to activate network functions (Bluetooth, WiFi) and to accept the application terms of use & privacy notice.
> ___
> Only bluetooth 4.2 or above is supported.

● Install the Hager Pilot mobile application on your mobilephone.

● Follow further instructions on the mobile application.

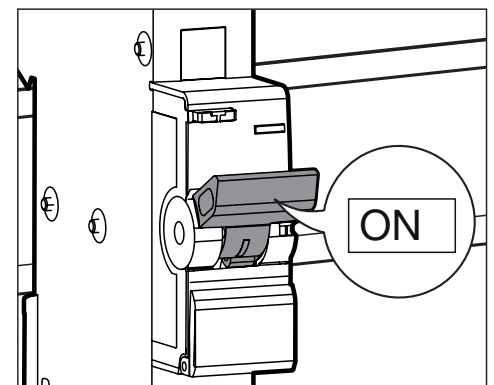### LED status for Bluetooth® connection

Fig 8: Handle during testing: ON

The handle is in the **ON** position.

● Press the test button **T** for **5 seconds** to activate bluetooth mode.

INDICATOR		STATE
(blinking blue)	Blinking BLUE	Bluetooth enabled
▬ (blue)	Steady BLUE	Bluetooth connected
(blinking red/blue)	Blinking RED/BLUE	Update mode (only overload and short-circuit protection in this mode)
(blinking blue/yellow)	Blinking BLUE/YELLOW	Trace mode (use for technical Hager support)
(blinking blue/green)	Blinking (BLUE/GREEN)	Firmware update confirmation requested

Table 2: LED status display for Bluetooth® connection

EU and UKCA Declaration

Hereby, Hager Electro SAS , declares that the AFDD products are in compliance with SI 2017/1206 Radio Equipment Regulations 2017 and with radio emission directive 2014/53/EU
– Operating frequency band 2.4 to 2.483 GHz.
– Maximum radio frequency power 10mW.
Declarations of conformity can be downloaded on www.hager.com