



What should be done when MCB ARC trips?

This diagnosis must be performed by a qualified person. All connections, disconnections and inspections must be performed with the entire circuit powered off.

Step 1

Analyze the context



Tripping on short-circuit or overload
Apply the usual electrical fault detection procedure.



Only the arc detector trips (visible red square).

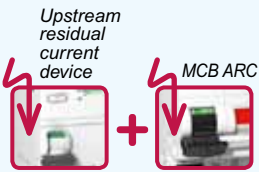
List the circumstances under which tripping occurred.

- What happened prior to tripping?
- What loads were connected and operating?
- When and how many times did the arc detector trip?

Look for signs of deterioration, overheating or sparking (on power cords, sockets, cables, etc.).

If no deterioration is evident, go to

Step 2



Tripping on leakage current
Apply the usual leakage current detection procedure.

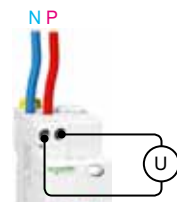
Step 2

Check that the arc detector is working correctly



Disconnect the cables downstream of MCB ARC

Check the voltage (max. 275 V AC)



196 V AC < U < 275 V AC

U < 196 V AC

U > 275 V AC

Network problem: contact the electricity supplier



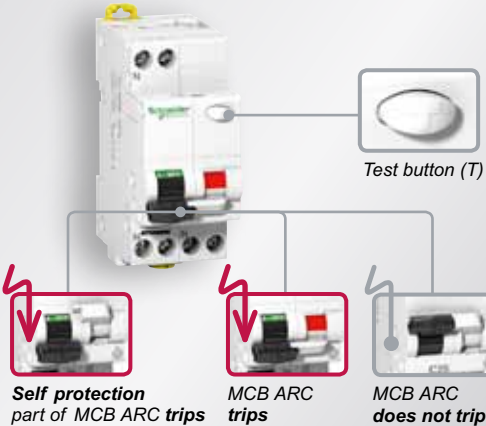
MCB ARC is working; go to Step 3



It is defective; replace it and repeat Step 1

CONDITION OF MCB ARC

KEY

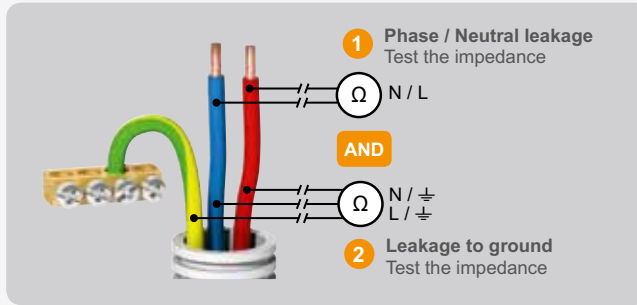


Step

3

Check current leakage risk

Disconnect all loads that could be damaged during this test.



Leakage current detected:
risk of arc to ground or parallel arc, change the cable or repair it

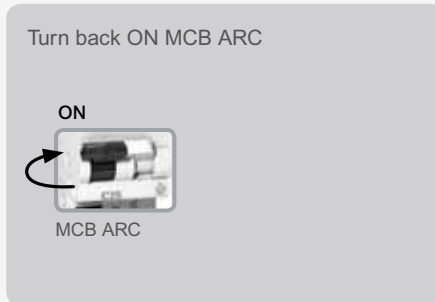
No leakage current detected:
go to Step 4

Step

4

Test parallel arc risk

Turn off MCB ARC. Reconnect the cables downstream of MCB ARC. Disconnect all loads powered by this circuit.



Risk of parallel arc, change the cable or repair it

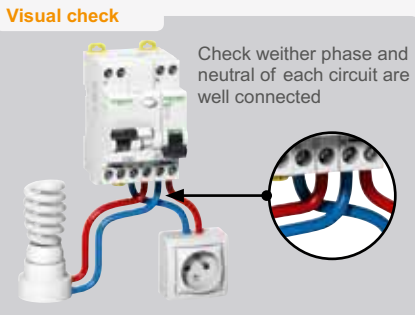


Go to Step 5

Step

5

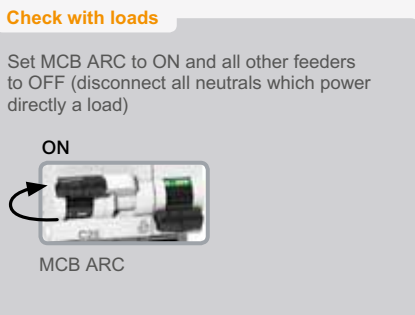
Check whether there is a crossed neutral with another feeder



Change wiring in case of wrong wiring of neutral or phase

No cross neutral validated
Go to Step 6

OR



Connect and turn ON a load powered by MCB ARC

The load works

Change wiring if the load does not work

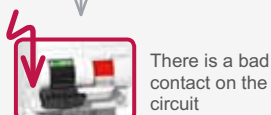
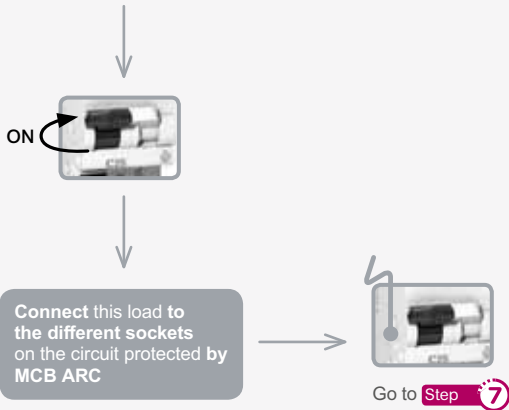
CIRCUIT CONDITION

Step 6

Test serial arc risk in cable and connection

Disconnect all loads powered by this circuit.

Prepare a 1000 W resistive load (heater, kettle, etc.) in good working order



Inspect the cables, connections and sockets to locate any signs of deterioration causing the device to trip.

Do not forget to check cables that supply several sockets, including cables connected upstream of the arc detector.

If you have not located the deterioration: lock off the circuit and replace the cables, connections and sockets

If you have located the deterioration: make good (change any damaged elements)

CIRCUIT CONDITION

Step 7

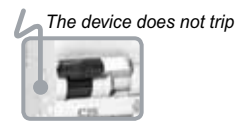
Examine the loads involved



Check that the loads identified at Step 1 are in good condition.

Connect and activate these different loads **one by one, then all together**, repeating the tripping circumstances described at Step 1.

Check whether MCB ARC trips



Inspect the load(s) involved (connections, power cords, etc.) to locate any deterioration

If deterioration is detected: make good or change the damaged loads

MCB ARC initially tripped due to a transient cause as overvoltage: install a voltage level recorder

If an overvoltage is discovered (> 275 V): contact your electricity supplier

If no overvoltage or deterioration has been discovered:

- Note the MCB ARC serial number (above the test button) or note the serial number that appears using the QRcode product.



- Contact Schneider Electric, giving all the information related to the previous steps and the serial number



- You will have to replace MCB ARC or allow specialists to carry out further tests on site.

LOAD CONDITION

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