

Residual current circuit-breaker

2844 01

Operation and installation instructions

Safety instructions

Electrical equipment may only be installed and assembled by qualified electricians. Failure to comply with these instructions may result in damage to the device, fire, or other hazards.

Function

The residual-current circuit-breaker is used to protect persons against residual electrical currents.

The residual-current circuit-breaker is a safety protective device with voltage-independent residual-current triggering as per VDE 0664.

The residual-current protected outgoing feeders (see Figure 5) are used to connect socket-outlets or other loads.

The residual-current protection encompasses all devices and cables connected to the residual-current circuit-breaker.

i The electrical wiring upstream of the device is not protected.

Operation

Getting the system ready for operation

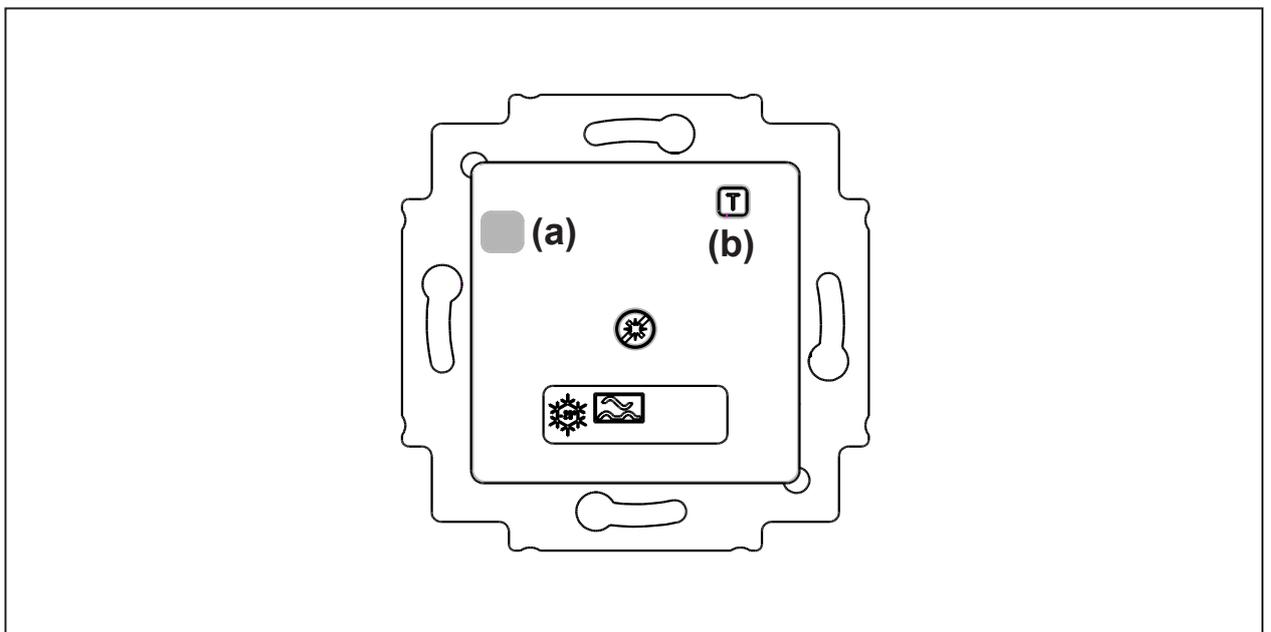


Figure 1

- Press push-button ((a), Figure 1).

Performing a functional test

i The functional test must be carried out at regular intervals.
Recommendation: 1 x per month

The operating voltage is connected.

- Switch on residual-current circuit-breaker with push-button ((a), Figure 1).
Voltage is present at the downstream socket-outlets and loads.
- Press test button **T** ((b), Figure 1).

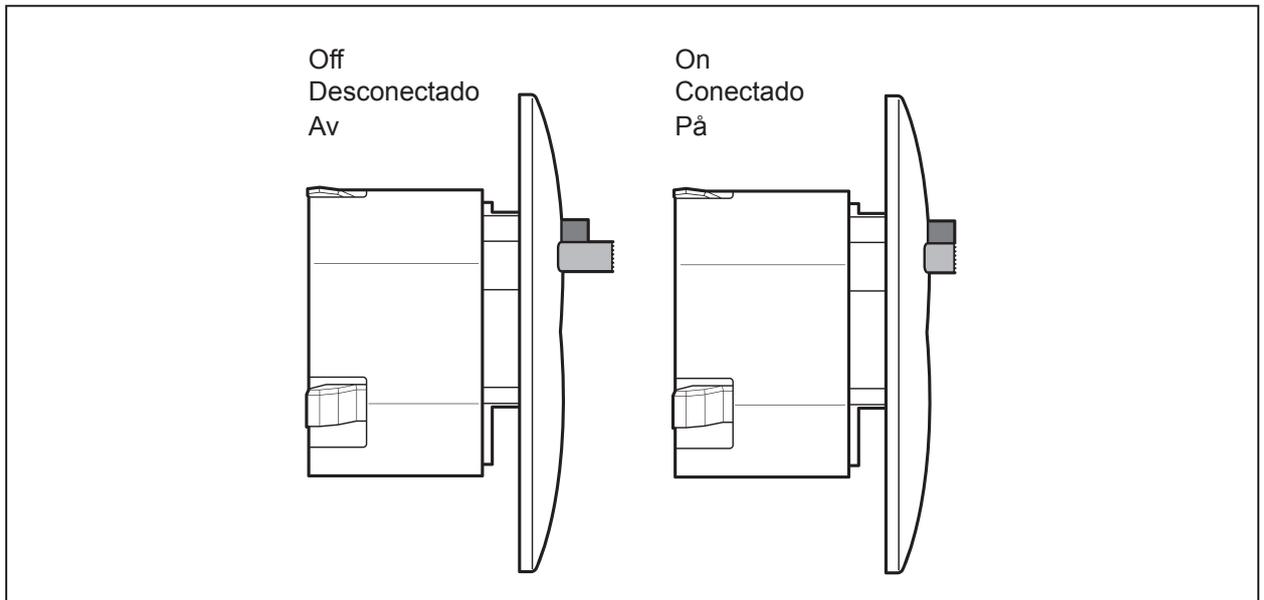


Figure 2

The residual current circuit-breaker trips and the push-button moves to the “Off” position (Figure 2). Downstream socket outlets/loads are de-energised. The functional test has been passed.

or:

The residual current circuit-breaker does not trip and the push-button remains in the “On” position (Figure 2). Residual-current circuit-breaker is now ready for operation.
Replace the residual-current circuit-breaker and repeat the functional test.

Information for electricians

Installation and electrical connections



DANGER!

Touching live parts can result in an electric shock!

An electric shock can be lethal!

Disconnect the connecting cables before working on the device and cover all live parts in the area!

The wiring must be adapted to the existing power mains. Check the power mains before any wiring work.

Connecting the residual-current circuit-breaker

The connection mode must be selected according to the design of the power mains.

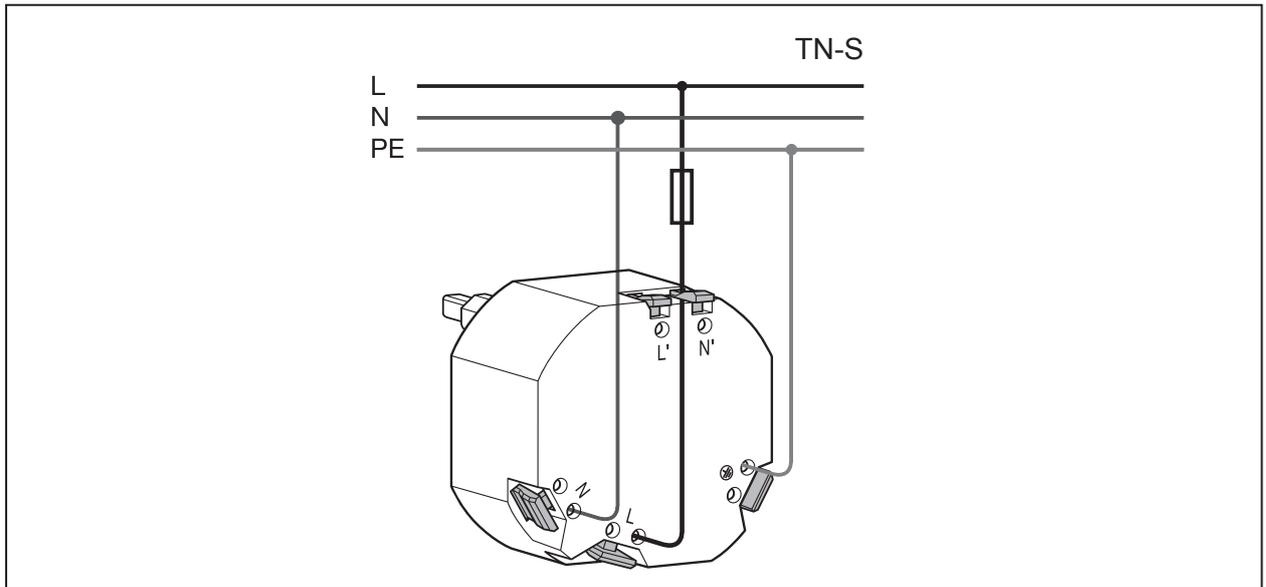


Figure 3

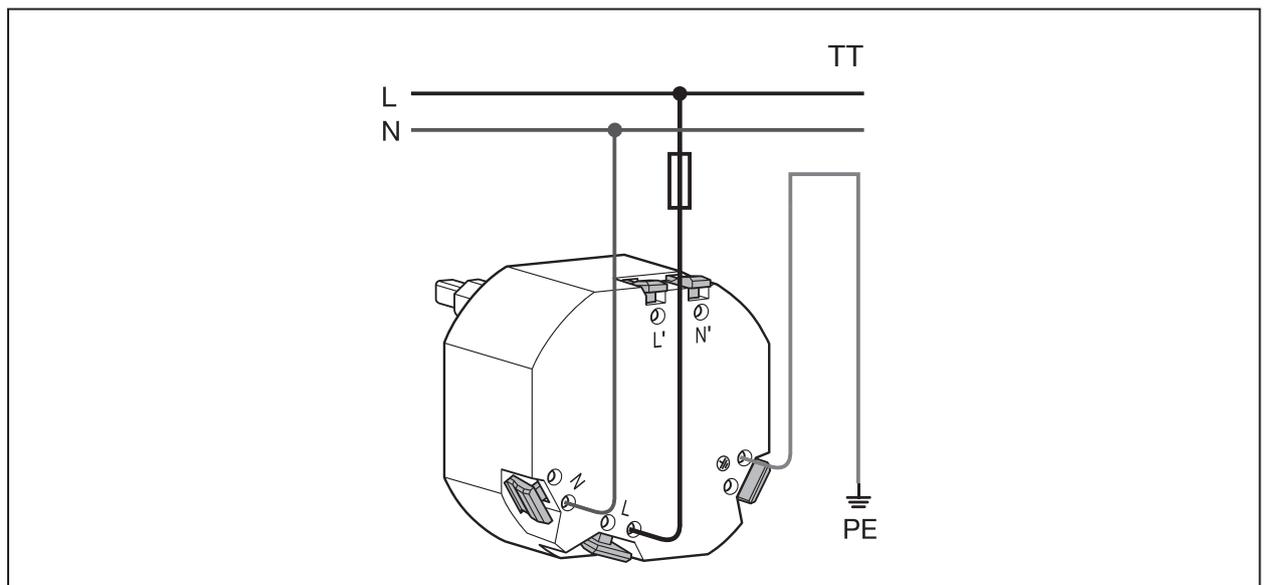


Figure 4

- Connect the residual-current circuit-breaker (see Figure 3, 4).
- Connect additional socket outlets/consumers to the output terminals.

The residual-current circuit-breaker is now ready for installation.

Disconnecting the terminal leads

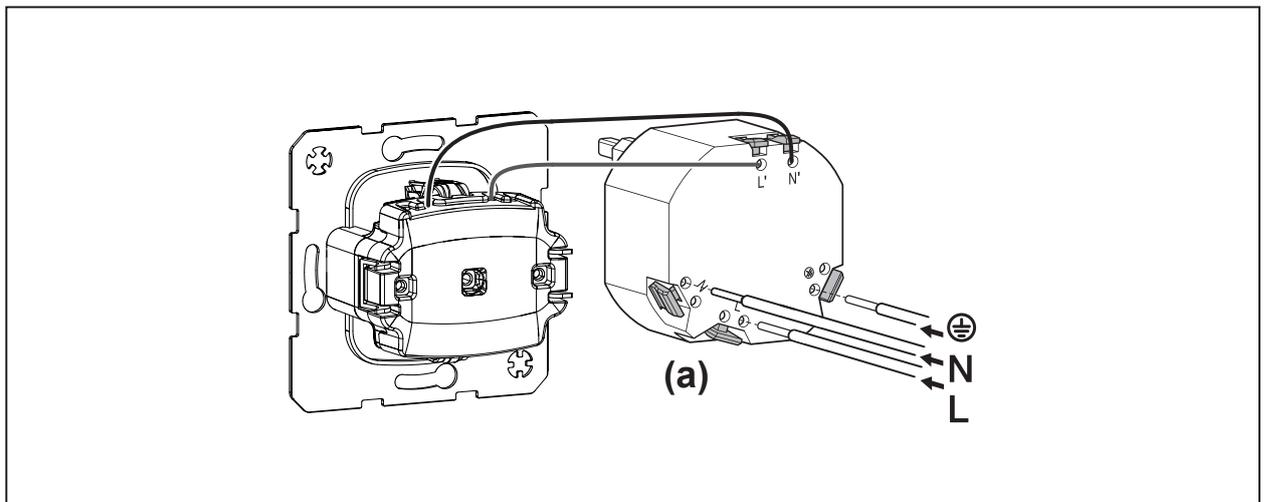


Figure 5

- Press the release buttons ((a), Figure 5) for the corresponding plug-in terminal and pull out the terminal leads.

Installing the residual-current circuit-breaker

The residual-current circuit-breaker is intended for installation in a standard commercial flush-mounted device-connection box according to DIN 49073, part 1.

The residual-current circuit-breaker is now ready for installation.

- Position the residual-current circuit-breaker in the flush-mounted device-connection box.
- Screw the residual-current circuit-breaker to the flush-mounted device-connection box using the screw holes in the support ring.
- Position the frame.
- Fit centre plate with intermediate ring (see accessories) and fasten with screws.

The residual-current circuit-breaker is now ready for commissioning.

Commissioning

Before commissioning

- carry out a functional test.
- test the safety measures.



DANGER!

Touching live parts can result in an electric shock!

An electric shock can be lethal!

Do not put the residual-current circuit-breaker into operation if the functional test is failed or the maximum permissible earthing resistance is exceeded!

Performing a functional test

- Test the function (see Operation).

The residual-current circuit-breaker is now ready for operation.

Testing the safeguards

The safeguard must be tested in accordance with the valid regulations for installation.

- Determine earthing resistance.

Maximum permissible touch voltage	Maximum permissible earthing resistance at rated fault current 30 mA
25 V	833 Ω
50 V	1666 Ω

 The maximum permissible earthing resistance must not be exceeded.

Appendix

Technical Data

Rated voltage	230 V~, 50/60 Hz
Rated current	16 A
Rated fault current	30 mA
Short-circuit resistance	3 kA (with back-up fuse 16 A gl)
Operating temperature	-25 ... +40 °C
Connection cable	1.5 ... 2.5 mm ²

Troubleshooting

The residual-current circuit-breaker trips during operation.

Cause: Connected devices are faulty.

Check connected devices and exchange if necessary.

Accessories

Centre plate for residual-current circuit-breaker	1496 ..
Intermediate ring for centre plate 50 x 50 mm	1108 .., 1109 ..

Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

Address of manufacturer

Berker GmbH & Co. KG
 Klagebach 38
 58579 Schalksmühle/Germany
 Phone: + 49 (0) 23 55/905-0
 Fax: + 49 (0) 23 55/90 5-111
www.berker.com