

# INSTRUCTION MANUAL

## SAFETY PRECAUTIONS

Before installation, wiring, operation, maintenance and inspection of the device, be sure to read the operating instructions carefully to ensure proper operations.

**⚠ WARNING :** Offending against the message will result in death or serious injury.

**⚠ CAUTION :** Offending against the message will result in minor injury or physical damage.

### **⚠ DANGER**

1. Turn off the upstream circuit breaker before installing or service to prevent electric shocks and burns due to short circuit.
2. Do not touch any live naked terminals. It makes an electric shock.

### **⚠ CAUTION**

1. Before installation, be sure to read this operating instruction carefully to ensure proper operation.
2. Installation, maintenance and inspection of the circuit breaker should be performed by qualified engineers having special knowledge.
3. Do not install the circuit breaker in place of environment with shock, high temperature, humidity, dust, corrosive gases, excessive vibration, etc. to prevent fire accidents and malfunction of the device.
4. Use the breaker in a range of the rated voltage and current shown on the name plate.  
Or it may cause malfunction.
5. On connecting the terminal, it is possible to connect without distinction between line and load circuit.  
If possible connect the ON terminal to the line circuit and the OFF terminal to the load circuit.
6. Please tighten the terminal screw in proper torque to prevent overheating. – M5: 20.4kgf·cm
7. The clamp terminal can accommodate wires, ranging from 0.75mm<sup>2</sup>– 22mm<sup>2</sup> (Rated tightening 20 Kg·cm).  
If possible, use the required wire as follows  
(below or 15A: 1.6mm<sup>2</sup>, 20A: 2mm<sup>2</sup>, 30A: 5.5mm<sup>2</sup>, 40A: 8mm<sup>2</sup>, 50A: 14mm<sup>2</sup>, 63A: 22mm<sup>2</sup>)
8. Each terminal or conductor pole should be connected in parallel as shown in the Fig.1.  
When mounting more than one breaker side by side, fit insulation barriers between breakers.  
If the breaker has no interphase barrier, insulate the exposed part of the crimp terminals or conductor with insulation sleeves or tape or attach terminal covers. (sold separately)

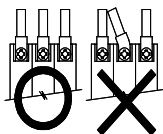


Fig.1

9. Measuring insulation resistance between phases or dielectric strength between phases are not available for this breaker. To do them, remove the breaker from the circuit in advance.
10. Be sure to ground the ground terminals of electrical devices.
11. When the circuit breaker trips of itself, remove the cause and turn the handle on.  
Or else, it may lead to the fire accident.
12. Do not modify the device unless it is permitted.
13. When the device become useless, it should be dispose of them as an industrial waste.
14. Do not connect aluminum terminals and conductors to the breaker directly.

### OTHER CAUTIONS

1. Be careful not to be damaged by accidents during transportation or installation.
2. Refer to the catalogue for further details.


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Operating and Installations Instruction for Residual Current Circuit Breaker  
for A.C. fault currents 

1. Technical Data

See label or marking on Breaker.

2. Mounting

Installation in the desired position by means of snap-on fastening to DIN-rails acc. to EN 50 022 35mm width.(Fig.1and 2)

Protection against unintentional touch with life parts acc.to VBG 4 and DIN VDE 106 Part 100. Operation of the switch independent from mounting position.

Attention : Mounting and dismounting only permissible by authorized electrician.

3. Connection

The supply may be from top or bottom as required. Pay attention to the reliable and tight connection of the conductor. Screwdriver torque max.2.5 Nm.

To operate a 4pole RCCB as a 2pole RCCB use terminals 5 and 7 for mains connection resp. 6 and 8 enable operation of the test pushbutton. In a 3phase network(without neutral N) the terminals 4 and 8 have to be interconnected.(See Fig. 4 and 5)

4. Operation

The RCCB is switched ON and OFF by means of the brown handle.(See Fig.5)

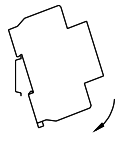


Fig.1

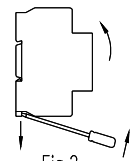


Fig.2

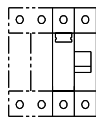


Fig.3

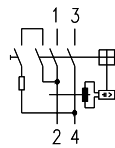


Fig.4

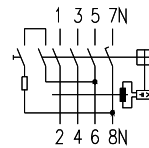


Fig.5

5. Functional Test

For functional test with supply voltage applied,switch the red handle to ON position. Then press the test pushbutton. The RCCB must trip immediately(the brown handle returns to OFF position).

The functional test should be performed in regular monthly intervals.

6. Testing of the Protective Measures

Besides the functional test of the RCCB the effectiveness of the protective measures should be tested for compliance with the relevant specifications.

7. Rated short-circuit withstand capacity

6000A, when combined with an upstream fuse 63A gl. BKN 63A can also be used instead of a fuse.

8. When opening the Breaker the warranty. Lapses.

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### ⚠ DANGER

1. Turn off the upstream circuit breaker before installing or service to prevent electric shocks and burns due to short circuit.
2. Do not touch any live naked terminals. It makes an electric shock.
3. Do not touch two live lines simultaneously. The circuit breaker does not operate even if an electric shock occurs.

### ⚠ CAUTION

1. Before installation, be sure to read this operating instruction carefully to ensure proper operation.
2. Installation, maintenance and inspection of the circuit breaker should be performed by qualified engineers having special knowledge.
3. Do not install the circuit breaker in place of environment with shock, high temperature, humidity, dust, corrosive gases, excessive vibration, etc. to prevent fire accidents and malfunction of the device.
4. Use the breaker in a range of the rated voltage and current shown on the name plate. Or it may cause malfunction.
5. On connecting the terminal, it is possible to connect without distinction between line and load circuit. If possible connect the ON terminal to the line circuit and the OFF terminal to the load circuit.
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8. Each terminal or conductor pole should be connected in parallel as shown in the Fig.1.  
When mounting more than one breaker side by side, fit insulation barriers between breakers.  
If the breaker has no interphase barrier, insulate the exposed part of the crimp terminals or conductor with insulation sleeves or tape or attach terminal covers.(sold separately)
9. Measuring insulation resistance between phases or dielectric strength between phases are not available for this breaker. To do them, remove the breaker from the circuit in advance.
10. Be sure to ground the ground terminals of electrical devices.
11. When the circuit breaker trips of itself, remove the cause and turn the handle on.  
Or else, it may lead to the fire accident.
12. Do not modify the device unless it is permitted.
13. When the device become useless, it should be dispose of them as an industrial waste.
14. Do not connect aluminum terminals and conductors to the breaker directly.
15. When using the DIN Rail.(Fig.2)
  - a. Lift the Breaker in direction to the arrow mark ① on the mounted DIN Rail.
  - b. Push(Full) the Breaker in direction to the arrow mark ② on the mounted DIN Rail.

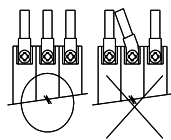


Fig.1

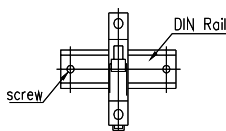
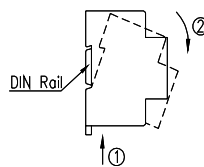


Fig.2



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6. Please tighten the terminal screw in proper torque to prevent overheating. – M6: 24.5kgf·cm
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12. When the device become useless, it should be dispose of them as an industrial waste.
13. Do not connect aluminum terminals and conductors to the breaker directly.
14. When using the DIN Rail.(Fig.2)
  - a. Push the Breaker in direction to the arrow mark ① on the mounted DIN Rail.
  - b. For removing pull the Snap in direction to the arrow mark ② .

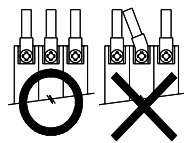


Fig.1

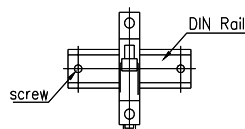
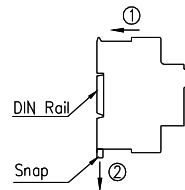


Fig.2



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