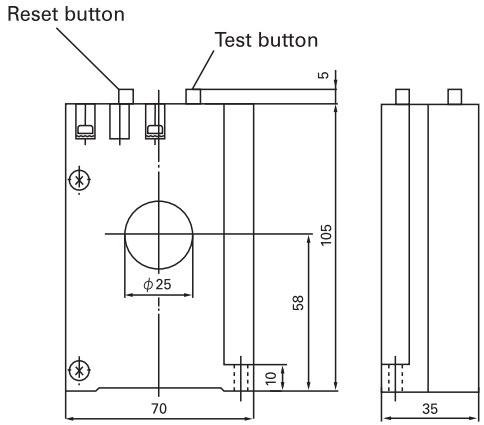
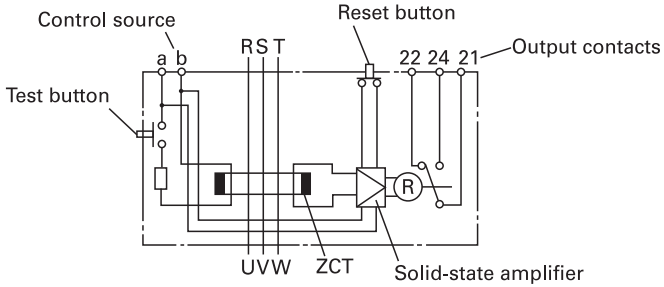
INSTRUCTION MANUAL

Model : BRR11N, BRR13N, BRR19N

Earth Leakage Relay
Solid-state amplifier type
Impulse wave non-operation
Through-type earth leakage relay



Circuit diagram



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1. Unpacking and inspection

Unpack the relay carefully and inspect it as follows:

a) Read the name plate to confirm that the relay is exactly the same as the model you ordered.

b) Has any damage been incurred in shipment?

2. Operations

The tripping device of the relay will operate if the leakage current either in the circuit or in the electrical apparatus exceeds its rated sensitivity.

It will not operate if the leakage current is smaller than 50% of its rated sensitivity value.

3. Precautions for use

a) If the cable passes through this relay and auxiliary contact of this relay is connected to the MCCB or Motor-starter, the earth-leakage circuit-breaker can be formed. Or the grounding wire of the power source passes through this relay, the relay can watch the earth leakage in all electrical circuit.

b) When the relay automatically tripped due to the leakage current, confirm the insulation of the instruments and the circuit. But the insulation resistance test or the withstand voltage test must be carried out after disconnecting the control source of the relay.

c) Press the test button to check the operation of the relay once a month. The test button must be kept pressed till the relay is tripped. After confirming the operation, press the reset button.

4. Precautions for installation

a) Avoid using the relay under abnormal conditions with respect to temperature, humidity, dust, corrosive gas, vibration, and impact. If such environmental conditions are inevitable, take proper measures such as putting the relay into a protective casing.

b) Bind and fix the cable that is passing through the relay, so that the relay should not be given mechanical stress by the cable when the short-circuit current flows through the cable.

c) If the relay is used in 3-phase 4-wire line, the neutral cable must pass through the relay.

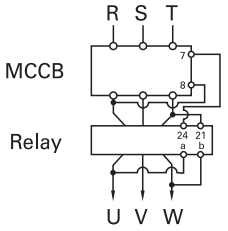
d) The grounding cable for the instrument must not pass through the relay.

e) The relay must be installed apart over 10cm from the bus bar for large current (over 2000A).

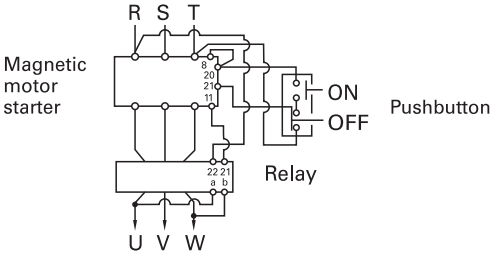
f) Control source voltage must be equal to the voltage on the name plate of the relay.

5. Connection example of earth leakage relay and MCCB, magnetic motor starter or buzzer

a) Earth leakage relay + MCCB



b) Earth leakage relay + Magnetic motor starter



c) Earth leakage relay + Buzzer