



EARTH LEAKAGE RELAY

Earth leakage relay is used for the continuous surveillance of the earth leakage current which causes generation of heat & progressive failure of insulation, when the current value moves outside from the desired zone the relay energises to give an alarm or trip a circuit.

PRINCIPLE OF OPERATION

The unit employs a CBCT (Core balance Transformer) to sense the leakage current. In a healthy system the vector sum of the currents flowing in the 3 phases is zero. But in the case of an Earth fault the vector sum is not zero & a resultant current begins to flow. This is converted into an analog voltage signal which is compared with a preset reference value. In case of 3 phase 4 wire Neutral is also be passed through the CBCT.

Safety Precautions :

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

If there is physical damage to the unit then do not use it.

Read complete instruction prior to installation and operation of the unit.

Wiring Guidelines :

- 1) To Prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- 2) Wiring shall be done strictly according to the terminal layout with shortest connection. Confirm that all connection are correct.

Caution :

- 1) To ensure the safe operation of unit , check the wiring and connections.

TECHNICAL SPECIFICATIONS :

Voltage - Rating	: 90-270VAC / DC
Current	Burden : 3VA Max : CBCT Secondary
	Overload : x2 continuously, x10 for 3 secs as per BS6253
	Burden : 3VA Max
Voltage Tolerance	: - 25% to +10%
Operating temp.	: -10°C to + 55°C
Operating time	: 0.1 Sec. to 10 secs. user adjustable
Setting of trip point	: 300mA -3A (10% to 100%) any other setting on request
CBCT Sizes (I.D)	: 35mm,70mm & 120mm any other round / rectangular CBCT on request.
Repeatability of set point	: Better than 0.5%
Relay Output	: Single pole change over 24VDC 5A resistive 240VAC 5A
Status	: Normally De-energised
Reset	: Manual
Burn in	: 48 Hours
Dimensions	: 45 x 90 x 75 mm (W x H x D)
Mounting	: Din Rail (35 mm)

CONNECTION DETAILS

