

TESC

46619 Earth Fault Relay Testing System is designed to provide exposure of protection device used to prevent faults in electrical circuits due to earth leakage current. The protection of electrical system is required to maintain any device in operation without failure. There are various types of protective devices used in Power Systems. The knowledge of protective devices helps to use them smartly and avoid system breakdown. Earth leakage current gives rise to heat generation and progressive failure of insulation which leads to earth faults & sparks. The Earth Fault Relay detects the leakage current well before they cross threshold limit.

46619 provides complete learning platform related with the connection of Earth Fault Relay in transmission line and testing of Earth Fault Relay. After experimenting with 46619 the students will be able to use Earth Fault Relay in Power Systems.

### Features

- 1. Inbuilt variable source
- 2. LED Display for better visibility
- 3. Isolation transformer is provided for safe operation
- 4. Exclusive and rugged designed panel
- 5. Designed by considering all the safety precautions
- 6. Diagrammatic representation for the ease of connections

# **Objects**

- 1. To study and verify the operating characteristics of Earth Fault Relay with different plug setting
- 2. To study connection of Earth Fault Relay in transmission line

Note: Specifications are subject to change.

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3. To study testing of Earth Fault Relay

For understanding the role of relays in real time transmission system a circuit of transmission line is provided from source to distribution with proper placing of all its required components.

# **Technical Specifications:**

- 1. Mains Supply : 230V AC ±10%, 50Hz Mains : On/Off by MCB 5Amp Indications : By Neon
- 2. Single Phase Variac Input: 230V AC Output : 0 - 270V AC Current: 4A
- 3. Isolation Single Phase Transformer Primary voltage : 230V AC Secondary voltage : 230V AC Rating: 1KvA (4.34Amp.)
- 4. Single Phase Transformer Primary voltage : 230V AC Secondary voltage : 230V AC Rating: 40W
- 5. Display Measurement Digital AC Ammeter : 5Amp. Digital AC voltmeter : 300V. Timer: 10mSec to 30Minute with reset.
- 6. Earth Fault Relay Type : Electro mechanical Inverse time Plug Setting : 0.5A, 0.75A, 1.0A, 1.25A, 1.50A, 1.75A and 2A.
- 7. Load : Bulb 40W
- 8. Dimensions (mm) : W 800 x H 600 x D 350
- 9. Weight: 62 kg (Approx)

# List of Accessories:

- 1. Shrouded Patch cord 4mm length 50/100cm Red .....07
- 2. Shrouded Patch cord 4mm length 50/100cm Black.....07
- 3. Rheostat 110E 5Amp.....01

