3PHASE RELAY & METER TEST KIT

Technical Specification:

Input Supply : 415V AC, 3 Phase, 4W

Application : Following Relays & Meters can be tested.

- Distance Protection Relay
- Directional /Non-Directional Protection Relay
- Transformer Differential Protection Relay
- Generator Protection Relay
- Under/Over Voltage Protection Relay
- Synchronous Relay
- Motor Protection Relay
- 1Phase, 3Phase Meters Testing

Outputs : The following outputs are available in the 3Phase Relay Test Kit

- 3Phase Variable Voltages (0- 110V AC)
- 1Phase Phase Shifted Voltage (0 – 110V AC)
- 1Phase Variable Phase Shifted Current (0 – 5A)
- 3Phase Variable Current (In Phase) (0 – 5A)
- DC Output Voltage 0 – 240V DC at 1 A
- Phase Shifting will be done as below, selectable by a selector switch
  X = 0 to + 120^0
  Y = 0 to – 120^0
  Z = -120^0 to $+120^0$

3Phase Voltage Output :

Voltage Range : 0 – 110V AC
Burden : 0.5A maximum
Volt Adjustment : By Manual Variac in each phase
Terminals : For Voltage Outputs R, Y, B, N terminals are provided.

Phase Shifted Voltage :

Phase Shifted Voltage : 0 -110V AC

Burden : 0.5A
Voltage Adjustment : By a manual Variac in each phase
Terminals : 2 Terminals are provided.

Phase Shifted Current :

Phase Shifted Current : 0 – 5A
Current Variation : By a manual Variac.
Terminals : 4 Nos. of terminals are provided for Phase Shifted Currents.

Phase Shifting :

Phase Shifting Selection: By a Selector Switch
Phase Shifting Ranges : X : 0 to + 120^0
Y : 0 to – 120^0
Z : -120^0 to $+120^0$
Phase angle variation : By a manual Variac

3Phase in Phase Current:

In Phase Current : 0 – 5A
Current Variation : By a manual Variac in each phase.
Terminals : 6 Nos. of terminals are given for in Phase Currents

Forward/Reverse Selection :

For/Rev Selection : For Single Phase Shifted Current and 3 Phase Current Forward / Reverse selection is provided

High Current TransformerRatio :

Pri. Current : 5A
Sec. Current : 20A - 50A - 100A.

DC Control Voltage :

Voltage Range : 0 – 230V DC
Burden : 1A
Voltage Adjustment : By a Manual Variac

N/O or N/C Selection :

OP/RST withN/O or N/C :Selectable by a Selector Switch for the Relay under test. N/O and N/C selection can be done for both Operating Time / Resetting Time of the Relay.

Timer : A auto range timer is provided to calculate the change over time of the Relay Contact (potential free) from N/O to N/C or N/C to N/O as per the above selection. For this, 2 terminals are provided. Potential Free contact of the relay should be used to stop timer and switch off the kit.

With Timer / without Time delay Selection :

Selection : One Selector Switch is provided to apply the Required Voltage or Currents for selected relay and selected fault, with time delay or without time delay.

Pre fault Current : For Motor Protection Relays, Pre-fault Current Selection is provided.

Fault Selector : RN, YN, BN, RY, YB, BR Selection can be selected by using a Fault Selection Switch.

Digital Meters :1 No. Digital Multifunction Meter will be provided to Indicate 3 Phase Voltages (in Phase), Phase Angle, 1Phase Current (Phase Shifted), 1Phase Voltage (Phase Shifted) and 3PhaseCurrent (in Phase)

1 No. Digital Meter will be provided to indicate DC Output Voltage

Phase Sequence Indicator: A phase sequence meter is provided to check correct sequence of the input supply.

Construction : The unit will be supplied in the following way

1. Instrument Box Type
2. Desk Top Type
3. Control Panel Type