Power System Protection

Differential Relay Testing System

Product Features

- Alphanumeric 16X2 Big Font LCD for better visibility
- Electromechanical relay to understand internal mechanism and its working
- Inbuilt Single Phase Variac with isolation
- Two variable current injection units
- Tripping function settings
- Exclusive and attractive design
- Diagrammatic representation of relay connection in transmission line

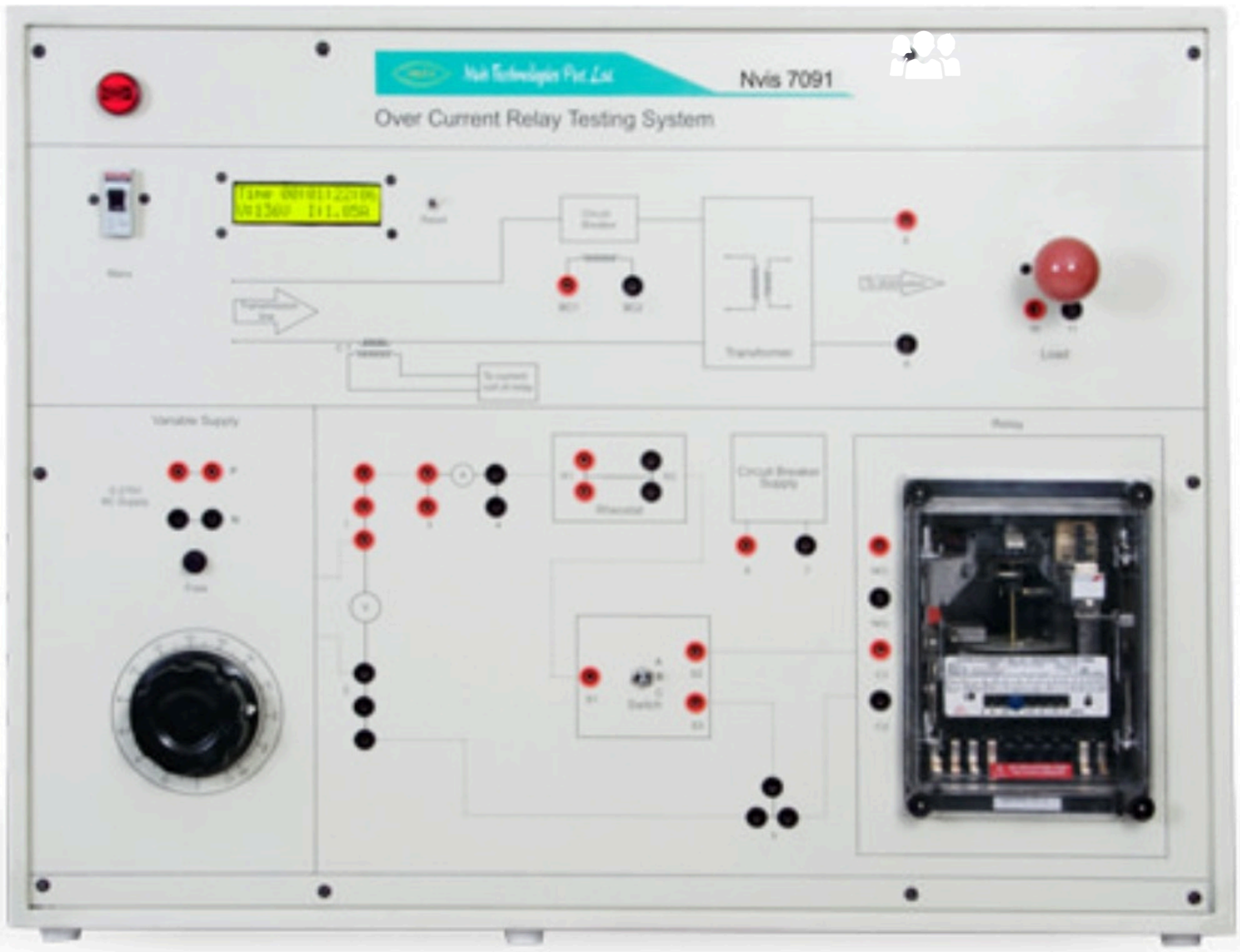
Scope of Learning

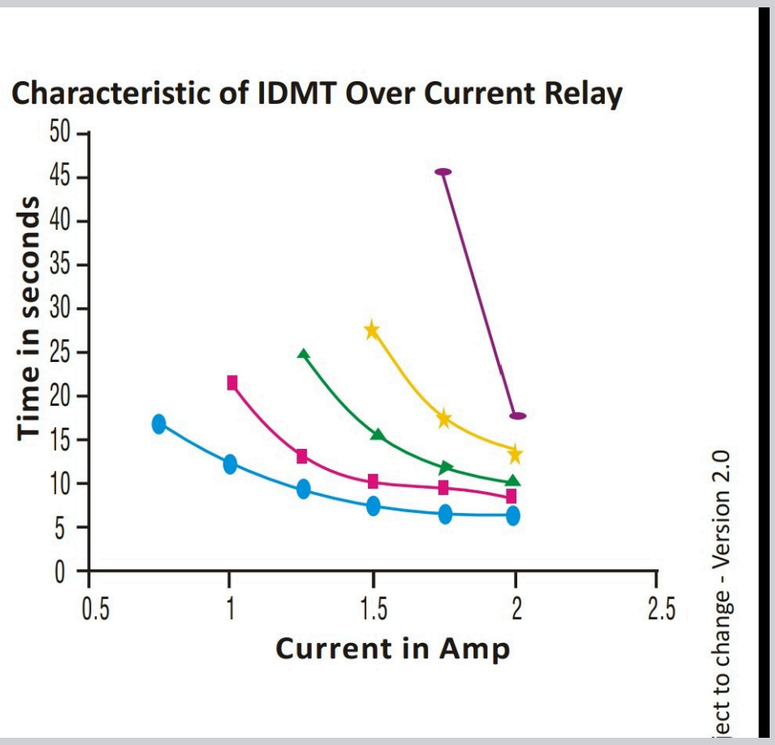
To study and verify the operating characteristics of Differential Relay with different plug setting

To study the connection of Differential Relay in electrical circuit

Nvis 7095 Different Relay operates due to differential current flowing in the circuit. When current between two sections vary from a known and permissible value, the relay gets tripped and protects the connected device.The Differential Relay requires two current sources for its operating & testing. For this, two current injection units are provided with the system. The current of both the injection units are displayed on LCD with the differential current to perform the experiment with higher stability & accuracy.

OVER CURRENT RELAY TESTING SYSTEM

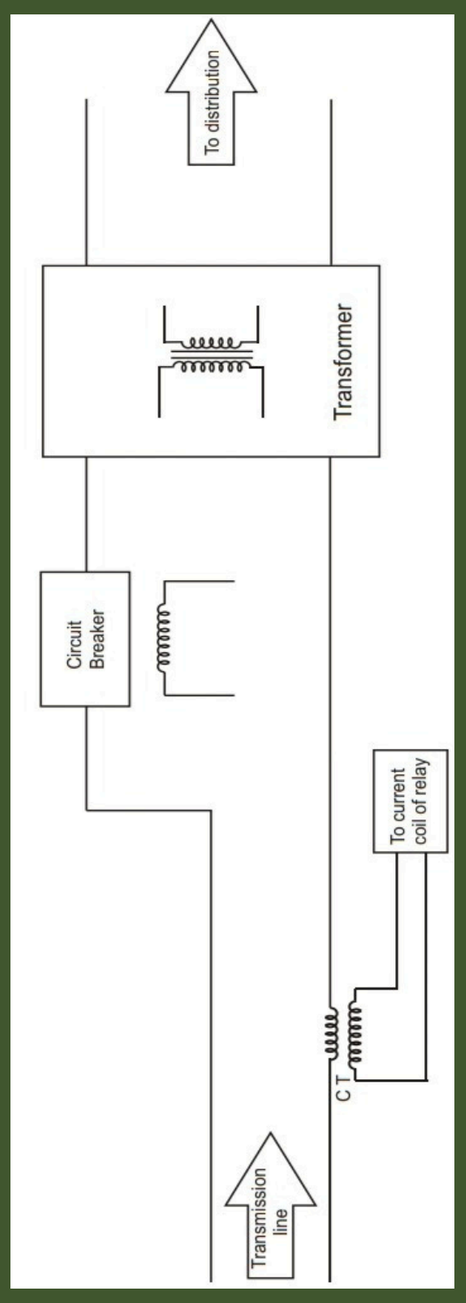




Nvis 7091 Over Current Relay Testing System monitors general balanced overloading and has current/time settings. These settings determine the protective schemes. The relay is IDMT type which has different tripping time characteristics with different current conditions. These are classified in accordance with their characteristic curves which indicate the speed of tripping operation.The typic setting for relay is 0.5-2Amp in 1-10 seconds.

FEATURES

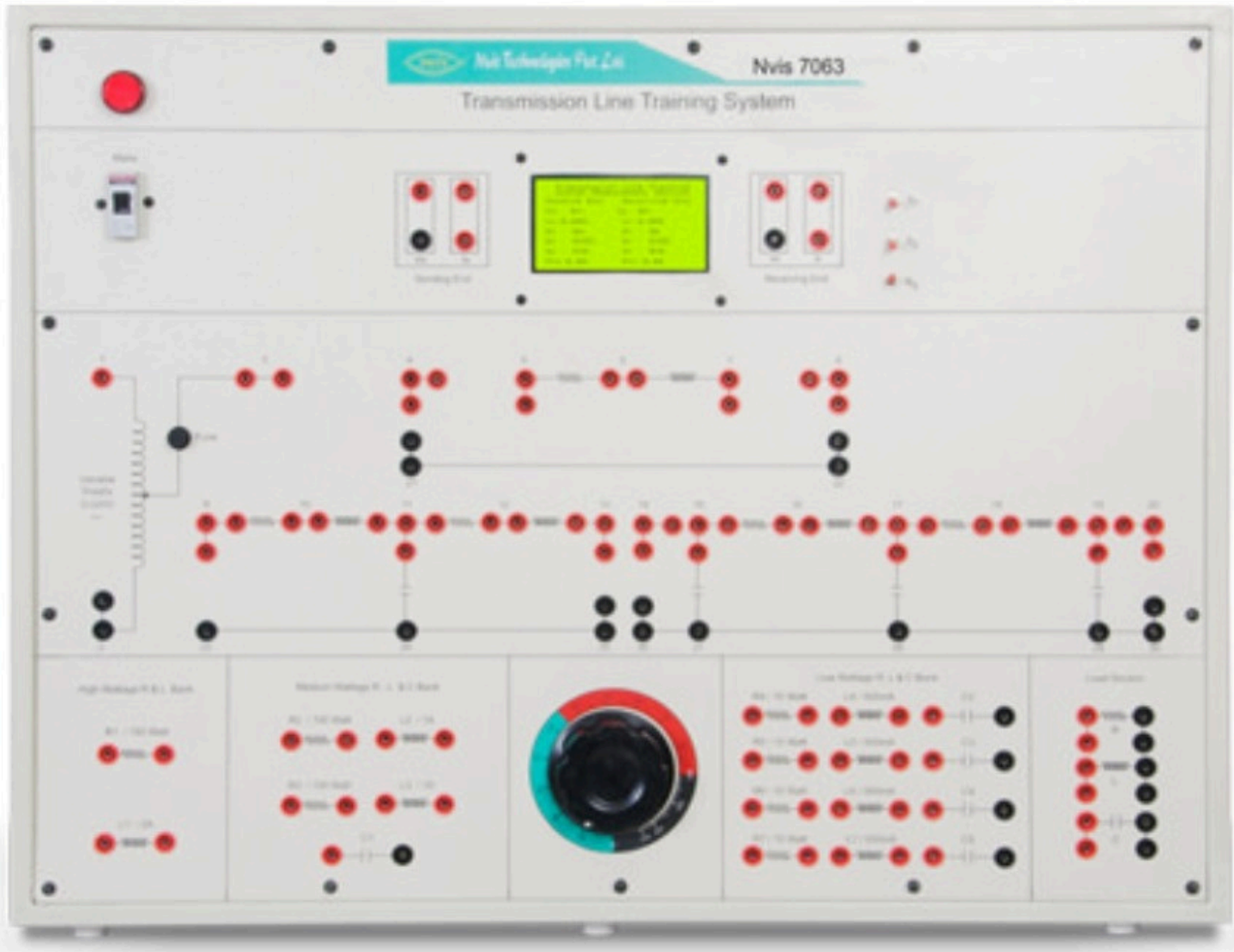
- Alphanumeric 16X2 Big Font LCD for better visibility
- Electromechanical relay to understand internal mechanism and its working
- Simultaneous display of voltage, current on LCD
- Inbuilt automatic timer that starts and stop with relay
- Inbuilt Power Source for relay
- Diagrammatic representation of relay connection in transmission line
- Exclusive and attractive design
- Designed by considering all the safety standards
- Learning material CD



TECHNICAL SPECIFICATIONS

MAINS SUPPLY : 230V ±10%, 50HZ
RHEOSTAT : 110W, 5A
SINGLE PHASE VARIAC
INPUT : 230V
OUTPUT : 0 - 270V
CURRENT : 0 - 5A
OVER CURRENT RELAY
TYPE : INVERSE TIME
NORMAL VOLTAGE : 110V AC, 50HZ
CURRENT SETTING : 0.5A, 0.75A, 1A, 1.25A, 1.50A, 1.75A AND 2A
CT SECONDARY : 1A
MEASUREMENT
VOLTMETER : 25 - 300V
AMMETER : 200MA - 5A
TIMER : 10MSEC - 30MIN

TRANSMISSION LINE TRAINING SYSTEM



FEATURES

•240 x 128 Graphical LCD Display

•RISC Microcontroller based design for measurement

•Simultaneous display of sending and receiving parameters

•Highly sensitive to change in reading for better controlling

•High Resolution ADC for accurate measurement

•Inbuilt Single Phase Variac to regulate supply

•Equipped with fixed R, L & C Load

•Facility to configure Short, Medium & •Long Transmission Line using multiple value of R, L & C

•Designed by considering all the safety standards

•Learning material CD

240 x 128 Graphical LCD Display Screen

TECHNICAL SPECIFICATIONS

Mains Supply : 230V ±10%, 50Hz

Single Phase Variac

Input : 230V Output : 0-270V

Current : 0-2A

Display Measurement

Voltage : >25V Current : >0.2A

Active Power : >20W<2000W

Reactive Power : >20VAR<2000VAR

Apparent Power : >20VA <2000VA

Resistor : 700O/ 100W

Inductor : 800mH/ 0. 5A

Capacitor : 12.5µF/ 450V

NVIS 7063 TRANSMISSION LINE TRAINING SYSTEM IS USED TO DELIVER THE LEARNING ASPECTS OF THE ELECTRICAL TRANSMISSION LINE. DIGITAL DISPLAY IS PROVIDED FOR EASY MEASUREMENT OF VOLTAGE, CURRENT, POWER, POWER FACTOR, ETC. THESE PARAMETERS HELPS IN LEARNING THE CHARACTERISTICS OF TRANSMISSION LINE AND CALCULATIONS OF THE ABCD, H, Z PARAMETERS.WE CAN PERFORM VARIOUS EXPERIMENTS LIKE SHORT, MEDIUM AND LONG TRANSMISSION LINE AND THEIR BEHAVIOR. ALSO ONE OF THE IMPORTANT EXPERIMENT WHICH CAN BE PERFORMED WITH THIS TRAINING SYSTEM IS FERRANTI EFFECT.