46972 Power Factor Demonstrator is a unique product that to demonstrate the significance of Power Factor in an electrical circuits and explain basic concept and importance of Real Power, Apparent power, Reactive Power.
It contains various values of Resistor, Capacitor, and Inductor inbuilt in the product. Student can make different circuit using different combination of Resistor, Capacitor, and Inductor and analysis of power factor. Students can also get to now the phenomenon of lagging and leading between current and voltage for different R, L, C combination circuit.
Product includes facility to display Voltage, Current Power and Power Factor on a single LCD display make this
product unique. This product can also interface with Oscilloscope. Students to analysis phase between voltage and current.

Features

1. Alphanumeric 16 x 2 Big Font LCD for better visibility
2. Inbuilt isolated BNC terminals to observe V and I simultaneously
3. Equipped with inbuilt R, L and C load required for experiment
4. Microcontroller based Measurement unit with high accuracy and resolution
5. Designed by considering all the safety standards
6. Diagrammatic representation for the ease of connections

Object

1. Measurement of Power Factor at
   - Resistive (R) Load
   - Resistive and Inductive (R-L) Load
   - Resistive and Capacitive (R-C) Load
   - Resistive, Inductiveand Capacitive (R-L-C) Load
3. Analysis and improvement of Power Factor of RL network through Capacitor
4. Analysis and improvement of Power Factor of RC network through Inductor
5. Analysis and improvement of Power Factor of RLC network through Inductor

Technical Specifications

Mains supply	:	230V ±10%, 50Hz
Transformer		
Primary Voltage	:	0- 230V AC
Secondary Voltage	:	0- 115V AC
Current Rating	:	150mA
Transformer		
Primary Voltage	:	0- 230V AC
Secondary Voltage	:	0- 9V, 15-0-15V AC
Current Rating	:	300mA
Resistance	:	500W, 400W 200W, 400W
Capacitor	:	12.5µF 440/450V 20µF 440/450V
Inductor	:	200mH, 1A
MCB	:	2A
Dimensions (mm)	:	W 600 x D 350 x H 450
Weight	:	20kg (approximate)

Note: Specifications are subject to change.

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Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-9829132777; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com