Order Code - 46607
Power Measurement using CT & PT

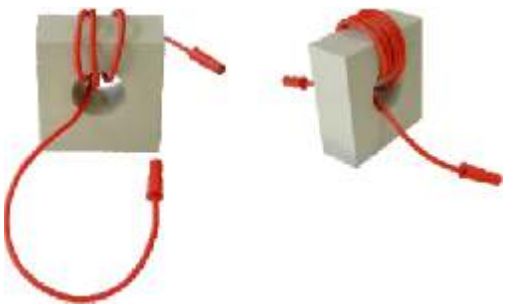
Features

- High resolution and accurate meters
- Digital Voltmeter, Ammeter and Wattmeter
- Internal variable power source
- Real time appearance of CT with facility to change primary turns
- Provided with all the accessories including rheostat to perform experiment
- Designed by considering all the safety precautions
- Learning material CD
- 2 Year Warranty

Scope of Learning

- To measure high value of AC Current by a low range AC Ammeter and Current Transformer
- To measure high value of AC Voltage by a low range AC Voltmeter and Potential Transformer
- To measure Power using CT & PT
- To study the effect of CT turns ratio in Current measurement
- To study PT & CT connection in an electric Circuit for measurement

3 Turn 5 Turn



Students can configure primary winding of CT to understand & analyse effect on secondary winding

46607 Power Measurement using CT and PT setup is designed to explore the measurement techniques used in electrical meters for measurement of Voltage, Current, Power etc. Current Transformer (CT) and Potential Transformer (PT) are used to sense Current and Voltage respectively from a transmission line. The various parameters that affect the Current and Voltage sensing using CT and PT are primary and secondary winding turns, gauge of wire and type of core. 46607 provides in-depth explaination and experimental analysis of various configurations of Current and Voltage measurement using CT and PT.

The students can measure the Voltage, Current, Wattage and Power Factor. Digital Voltmeter, Ammeter and Wattmeter are provided on panel to increase accuracy of measurement. The meters have very high accuracy and resolution.

The CT is provided on panel so that students can change the turns in primary winding and measure the corresponding changes in secondary winding and change in measurement. Protection circuit is inbuilt.

Technical Specifications

Mains Supply	: 230V ±10%, 50Hz
Variac	
Input	: 230V AC
Output	: 0-270V AC
Current Rating	: 5A
Ammeter (2 nos.)	
Display Resolution	: 0.01A AC
Range Min/Max	: 0.1/5A
Voltmeter (2 nos.)	
Display Resolution	: 1V AC
Range Min/Max	: 10V/300V
Wattmeter	
Display Resolution	: 1W
Range Min/Max	: 15/1500W
Current Transformer	
CT Ratio	: 1:10
Secondary Current Rating	: 2A
Potential Transformer	
PT1	
Primary	: 230V
Secondary	: 115V
PT Ratio	: 1:2
PT2	
Primary	: 230V
Secondary	: 57.5V
PT Ratio	: 1:4
Rheostat	: 220Ω, 2.8A
MCB	: 2A (SPN)
Dimensions (mm)	: W 600 x D 350 x H 450
Weight	: 22kg (approx.)

Note: Specifications are subject to change.

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