



55809 Experimental Set-Up has been designed specifically to find percentage error in a single phase energy meter. The set-up consists of two Energy meters, Wattmeter, Voltmeter, Ammeter, Variac, Digital stop clock and Variable load.

The set-up is complete in all respects and requires no other apparatus. Practical experience on this set up carries great educative value for Science and Engineering Students.

#### OBJECT

- 01 To find percentage error in a single phase energy meter by direct loading method
- 02 To find percentage error in a single phase energy meter by comparing with a sub-standard meter.

#### FEATURES

The complete Experimental Set-up consists of the followings :

- 01 Energy meter electronic single phase : Under test (Local)
- 02 Energy meter electronic single phase : Sub-standard meter (ISI Mark)
- 03 Moving Iron AC portable voltmeter / : In housed in bakelite case with knife edge pointer & anti parallax mirror scale of ammeter/ wattmeter 140mm length, spring controlled movement, having accuracy class 1.0.
  - 3.1 Voltmeter range 0–300 Volt
  - 3.2 Ammeter range 0–10 Amp.
  - 3.3 Dynamometer type Wattmeter single phase, multirange, current coil 5/10Amp., Potential coil 75/150/ 300 Volt.
- 04 VARIAC : Variable voltage transformer table/floor mounting with enclosure input 230V, output 0–270V at 8 Amp.
- 05 VARIABLE LOAD : Uses 18 heating rods of 50E to 70E 750 Watt each, based on cement asbestos sheet of size 15.75 x 23.75 inch, Output are on terminal with connecting series & parallel connections by switches, to obtain different loads 25 to 210 ohms app.
- 06 DIGITALSTOP CLOCK : With START/STOP operation by means of toggle switch & RESET by a push Button switch. It has a range of 999.9 seconds with resolution of 0.1 seconds and accuracy of  $\pm 0.01\%$  (Quartz controlled). Display is thorough 4 no's of 12.5mm bright Seven Segment Displays and working voltage of the unit is 230V  $\pm 10\%$  50Hz.
- 07 Set of connecting wires. : Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

Note: Specifications are subject to change.

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