



**OMEGA TYPE ES-309** 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 0–10Amp.
  - 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 8Amp.
- 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 **DIGITAL STOP CLOCK**  
**OMEGA TYPE DSC-602** : 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.
- 08 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

**OMEGA ELECTRONICS**