

**OMEGA TYPE 20 002** Single Phase Transformer Lab is a versatile Training Board. With the help of this Training Board, the student can be familiar with functioning of a single phase transformer. The unit is designed in such a way that each test can be learnt in proper sequence. The Lab is helpful to study polarity, turns ratio, transformation ratio, copper loss, iron loss, efficiency etc. The vast scope makes one to understand the subject completely.

### OBJECT

- 01 Study of Polarity Test in a Single Phase Transformer.
  - 1.1 Additive Polarity.
  - 1.2 Subtractive Polarity.
- 02 Study of Transformation Ratio in a Single Phase Transformer.
  - 2.1 Isolation Transformer.
  - 2.2 Step Down Transformer.
  - 2.3 Step Up Transformer.
- 03 Study of Open Circuit Test in a Single Phase Transformer.
- 04 Study of Short Circuit Test in a Single Phase Transformer.
- 05 Study of Load Test and correspondingly determine the Efficiency and Voltage Regulation in a Single Phase Transformer.

### FEATURES

- 01 Inbuilt single phase Variac.
- 02 Equipped with supply indication lamp.
- 03 Facility to use Fixed and Variable Load.
- 04 Terminals provided to use the optional externally.
- 05 Designed by considering all the safety standards.
- 06 Diagrammatic representation for the ease of connections.
- 07 Flexibility to configure step-up, Step-down and isolation Transformer.
- 08 Exclusive and compact design.

### TECHNICAL SPECIFICATIONS

The board consists of the following built-in parts:

- 01 Two Digital AC Voltmeter 0–300 V.
- 02 Digital AC Voltmeter 0–200 V.
- 03 Two Digital AC Ammeter 0–5 Amp.
- 04 One Digital AC Ammeter 0–2 Amp.
- 05 Digital Wattmeter single phase, current coil 0.5 Amp. Potential coil 250 Volt Total Watt 125W.
- 06 Digital Wattmeter single phase, current coil 5 Amp. Potential coil 250 Volt Total watt 1250W.



### 07 SINGLE PHASE AUTO TRANSFORMER:

Primary Voltage : 230V,  
Secondary voltage : 0–270V  
Rated current : 6Amp.

- 08 The unit is operative on 230V ±10% at 50Hz AC Mains.

### 09 SINGLE PHASE TRANSFORMER :

Rating : 1 KVA  
Primary Voltage : 0 - 125 V, 0 - 125 V  
Secondary Voltage : 0 - 125 V, 0 - 125 V

- 10 MCB : 10Amp
- 11 Load : Two 100W bulb Provided for Load. & three pin Socket for external Load Provided.
- 12 Dimensions (mm) : L600 x H450 x D350 mm
- 13 Weight : 39 Kg. (Approx.)

### LIST OF ACCESSORIES:

- 01 Shrouded patch cord 4mm length 50 cm Red/Black ... 14.

### OTHER APPARATUS REQUIRED:

- 01 Resistive Load OMEGA TYPE 20 202

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

**OMEGA ELECTRONICS**