

# HOPKINSON'S TEST OF DC MACHINE

OMEGA TYPE 20 111





**OMEGA TYPE 20 111** Hopkinson's Test of DC Machine is an adaptable training system used for Electrical Laboratory. It is designed to demonstrate the fundamental concepts and also facilitates easy learning about the various losses of DC Machine.

Two similar machines are required to carry out Hopkinson's Test. Electrically these two machines are connected in parallel to determine the Efficiency of DC Machine by separately calculating the losses. Separate terminals of Armature and Field windings are brought out on a terminal box fitted on top of the motor. The training system includes terminals for Rheostat and Starters so that these devices can be connected externally to the panel.

**OMEGA CODE 20 111** has been designed in such an easy way that users can observe the voltages and current of windings of both the motors. All protection devices are in built negligible chance of fault or danger.

#### **FEATURES**

- 01 Exclusive and Compact Design
- 02 Electrical Loading Arrangement
- 03 Flexible Shaft Coupling Arrangement
- 04 Machine with Class "B" Insulation
- 05 Heavy Duty Base/Channel
- 06 Terminals provided to use the optional externally
- 07 Designed by considering all the safety standards
- 08 Diagrammatic representation for the ease of connections

## **OBJECTS**:

01 Study and obtain the losses separately and corresponding Determine the efficiency of a DC Shunt Generator by Hopkinson's test.

### **TECHNICAL SPECIFICATIONS**

01 AC DC Operating Voltage Required

Input mains : 230V AC ±10%, 50Hz

Fixed DC : 200V Variable DC : 0-200V

02 DC Machines Specification (2 Nos.)

Both the Machines are flexibly coupled and mounted on a M.S. channel Base acts as a Motor Generator set

Type : DC Shunt
Rating : 0.3KW
Voltage Rating : 180/220V
RPM : 1500 (no load)
Insulation : Class "B".

O3 Digital Meters 3½ Digit used Digital Voltmeter: 300V

Digital Ammeter: 2A, 5A (2 nos.)

04 Dimensions panel: L 600 x H 450 x D 350mm 05 Dimensions MG Set: L900 x H 310 x D180mm

06 Weight panel : 17kg (approx.)

07 Weight MG Set : 53kg (approx.)

#### LIST OF ACCESSORIES:

01 Shrouded Patch cord 4mm length 50/100cm -----31

#### OTHER APPARATUS REQUIRED:

- 01 DC Power Supply Omega TYPE 20 201
- 02 Rheostat 110 ohms, 5Amp. (2 Nos.)

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

## OMEGA ELECTRONICS