

# Hopkinson's Test of DC Machine

Premier Hopkinson's Test of DC Machine is an adaptable training system 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.

It 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.



## Technical Specifications

**DC Input supply** : Variable, 0-180/200 V  
Fixed, 180 - 200V  
(Please refer motor specs.)

### 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 : 1 HP (Also available with 2 & 3 HP)  
RPM : 1500 (no load)  
Insulation : Class 'B'

### Meters used

Voltmeter : 300 V  
Ammeter (2 Nos.): 1 A, 5 A

**Dimensions (mm)** : W 600 x D 450 x H 600 (panel)

**Weight** : Control panel : 18 Kg. Motor : 48 Kg.

## Features

- ▶ Stand alone operation
- ▶ Two Identical DC Machines
- ▶ Exclusive and rugged designed panel
- ▶ Standard Safety Terminals
- ▶ Designed by considering all the safety precautions
- ▶ High quality meters
- ▶ Diagrammatic representation for the ease of connections

## Scope of Learning

- Study and obtain the losses separately and correspondingly determine the efficiency of a DC Shunt Machine by Hopkinson's Test