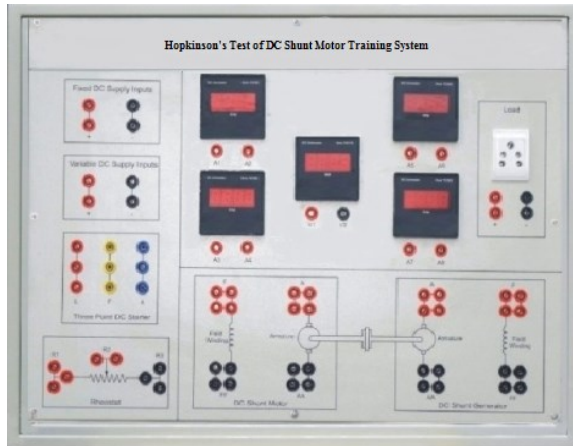


# Hopkinson's Test of DC Shunt Machine Training System



\*\* Shown image is just for illustration original may differ

## Introduction

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. 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.

## Product Features

- Machine with standard electrical loading arrangement through flexible lovejoy coupler
- Machine winding consist of copper for long term service
- Machine Conforms to all leading industrial standards with Class "B/F" Insulation
- Heavy Duty Base/Channel with facility to concrete machine using suitable heavy nuts and bolts
- Provided with contact type Digital speed measuring equipment
- Inbuilt DC Drive of suitable rating with overload protection
- Control panel with digital microcontroller based measuring devices with high accuracy and resolution
- Front board consist of MS Material with power coating to avoid any rust
- Provided with suitable protection such as fuses, MCB, etc wherever requires
- Specially designed BS10 Terminals and patch cords for electrical safety
- Lamp indication for single phase supply
- Earthing screw provided at the back side of the control set-up
- Screen printed diagrammatic representation for the ease of connections.
- Product should be provided with protection fuses, colored patch cords, single phase cords, learning manual having theory operating procedure with connecting diagram, FAQ, Glossary, etc

## Technical Specifications

**Operating Supply of Control Panel** : 230VAC  $\pm$  10%, 50Hz

### Machine Specifications

Both the machines are flexibly coupled and mounted on a "C" Channel base

Type	: Shunt
Rating	: 0.5 HP to 3HP
Voltage Rating	: 220VDC $\pm$ 10%
Speed	: 1500 rpm $\pm$ 10% at load
Insulation	: Class 'F'
Winding	: Copper
Duty	: Continuous
Enclosure	: SPDP
Mounting	: Horizontal foot mounted
Shaft Extension	: Single Sided

Loading arrangement	: Electrical
<b>Digital Meters used</b>	
DC Voltmeter	: 300V
DC Ammeter	: 20A (4nos)
<b>DC Power Supply</b>	
Output Fixed voltage	: 200VDC $\pm$ 10%
Output Variable voltage	: 0 - 240VDC $\pm$ 10%
Current Rating	: Based on Power Rating of Machine
Protection	: Overload Protection
<b>Digital Tachometer</b>	
Range	: 19,999 rpm
Type	: Contact / Non-contact
<b>Protection Devices</b>	
MCB (DP)	: 1No
Glass Fuse	: 3Nos
Grounding Nut	: Available at the rear side of the panel

#### Experiments Can be performed:

Study and obtain the losses separately and correspondingly. Determine the efficiency of a DC Shunt Machine by Hopkinson's test

#### Supporting Accessories supplied with Product

- Patch Cords of different color scheme
- Single Phase Mains Cord
- Extra Glass Fuses
- Operating Manual (softcopy)
- Digital Tachometer

#### Optional Accessories (On Additional Cost)

- Rheostat, 2.8A, 220Ohms (2Nos.)

**\*\*Please feel free to share your queries or requirements by filling your details in ask query section or request a Quote section on the website, we will be happy to cater your requirement.**