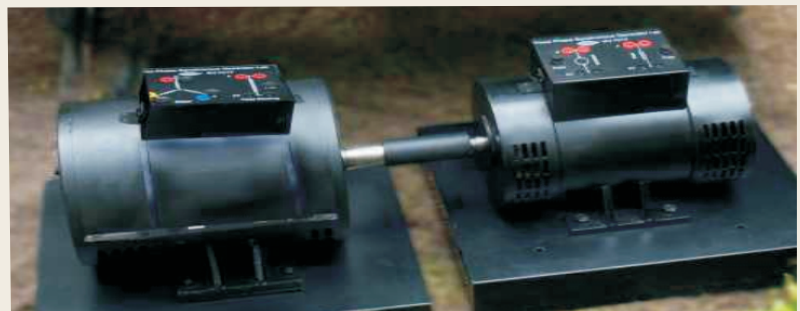


# Three Phase Synchronous Motor Lab

Premier Three Phase Synchronous Motor Lab is an adaptable Training System for the Electrical Laboratories. It helps in getting fully acquainted with the basic concepts, functioning & operating principle of a Three Phase Synchronous Motor. The trainer practically expertise's students in exercises like V and inverse V curve of synchronous motor and helps to get to know how the variation of field current can affects the power factor of the Synchronous Motor and hence improve the system's performance. Separate terminals of windings brought out on a terminal box fitted on top of the motor to connect them separately to the control panel and can perform experiment correspondingly. All protection circuits are in built so there is very less chance of fault or danger to user. The varied scope of learning makes the subject understanding complete.



## Technical Specifications

**Mains Supply** : Three Phase 415V  $\pm$ 10%, 50Hz

### Machines Specification (2 Nos.)

**Both the Machines are flexibly coupled and mounted on a M.S Channel base.**

### Three Phase Synchronous Motor

Type : Salient Pole Motor  
 Current type : AC  
 Rating : 3 HP  
 Excitation Voltage : 120 V  
 Voltage rating : 415 V  $\pm$  10%

### DC Machine

Type : DC Shunt  
 Rating : 2 HP  
 Voltage Rating : 200 V  
 RPM : 1500 (no load)  
 Insulation : Class 'B'

### Meters :

Ammeter(MC type): 2 Nos  
 Voltmeter (MC type): 2 Nos  
 Wattmeter : 2 Nos  
 Three Phase MCB: 10 A  
 Dimensions (mm) : W 450 x D 600 x H 600 (panel)

## Features

- ▶ Exclusive and rugged designed panel
- ▶ Mechanical Coupling Arrangement
- ▶ Designed by considering all the safety precautions
- ▶ Real time Appearance of component
- ▶ Centre-tapped Wattmeter used for better precision



## Scope of Learning

- To study the V curve of Three Phase Synchronous Motor
- To study the Inverse V curve of the Three Phase Synchronous Motor