



46590 Three Phase Synchronous Motor Lab is an adaptable Training System for the Electrical Laboratories. The product helps in getting fully acquainted with the basic concepts, functioning and operating principle of a Three Phase Synchronous Motor. The product includes experiment such as V and inverse V curve of synchronous motor. For engineering students it is important to know how the variation of field current can affect 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 so that one can 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 easily understandable.

### Features

- Flexible Shaft Coupling Arrangement
- Centre-Tapped Wattmeter being used for better precision
- Equipped with supply indication lamps
- Provided with Digital Tachometer
- Machine with Class "B" Insulation
- Heavy Duty Base/Channel
- Designed by considering all the safety standards
- Diagrammatic representation for the ease of connections
- Exclusive and Attractive Design
- Learning material CD
- 2 Year Warranty

### 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

### Optional

Three Phase Variac, 10A

DC Power Supply

Resistive Load

### Technical Specifications

Mains Supply	: Three Phase, 415V±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
Rating	: 3 HP
Voltage rating	: 415V ±10%
Speed	: 1500 RPM
Insulation	: Class 'B'
Excitation Voltage	: 120V
DC Machine (Acts as generator)	
Type	: Shunt
Rating	: 2 HP
Voltage Rating	: 200V
Speed	: 1500 RPM (no load)
Insulation	: Class 'B'
Analog Meters Used	
AC Ammeter (MI type)	: 10A
DC Ammeter (MC Type)	: 2A
AC Voltmeter (MI type)	: 500V
DC Voltmeter (MC Type)	: 300V
Wattmeter	: 1500 - 0 - 1500W (2 Nos.)
MCB (TPN)	: 10A
Dimensions (mm)	: W 600 x D 450 x H 600
	(Control Panel)
	W 250 x D 900 x H 400 (MG Set)
Weight	: 18.5kg (approximate)
	(Control Panel)
	106kg (approximate) (MG Set)

Note: Specifications are subject to change.

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