

# Three Phase Squirrel Cage Induction Motor with Star Delta Starter Training System





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

### Introduction

Three Phase Squirrel Cage Induction Motor with Star-Delta Starter is an adaptable training system for the Electrical laboratories. The product helps you to get fully acquainted with the basic concepts and functioning of a Three Phase squirrel cage Induction Motor.

The trainer practically expertise you in exercises like Running and Reversing, No Load Test, Slip Measurement, Load Test etc. All connections and appearance of panel are designed in a simple manner so that students can make connections by themselves.

### **Product Features**

- Control with built-in Star Delta Starter
- Digital microcontroller based measuring devices with high accuracy and resolution
- Control board Consist of MS Material with power coating / Epoxy paint to avoid any rust
- Screen printed symbols, circuit diagrams, graphics or photos wherever requires.
- Designed using standard BS-10 terminal and patch cords for electrical safety
- Machine winding consist of copper for long term service
- Machine with Class "F" Insulation
- Machine with standard mechanical loading structure
- Machine with standard tabular spring balance with zero adjustment facility
- 1.5 mm x 3mm Heavy Duty Base/Channel with facility to concrete machine
- Brake-Drum/Pulley with heat suppression facility inside it
- Provided with non contact Digital speed measuring equipment
- Equipped with supply indicator lamps
- Earthing screw provided at the back side of the control board
- Product supplied with protection fuses, colored patch cords, single phase\ three phase cords, learning manual
  having theory operating procedure with connecting diagram, FAQ, Glossary, etc

### **Technical Specifications**

Mains Supply : 415VAC ±10%, 50Hz

Star Delta Starter : Siemens or equivalent Make

**Three Phase Induction Motor** 

Type : Squirrel Cage

Rating : 3HP

Voltage Rating :  $415V \pm 10\%$ , 50HzCurrent Rating : As per standard Speed :  $1440 \text{ RPM} \pm 10\%$ 

Insulation : Class 'F'
Duty : Continuous
Enclosure : TEFC

Mounting : Horizontal Foot Mounted

Shaft Extension : Single Sided Loading arrangement : Mechanical

Brake Drum/Pulley : MS/Aluminum Casted with heat suppression facility inside it

Spring Balance : 2Nos. (Salter make)
Loading Nut & Bolts : Brass material

Terminals box : Epoxy paint with terminals and fuses brought out at the top

Machine Base : MS "C" Channel with suitable interconnection

**Digital Meters used** 

AC Wattmeter : 2 Nos.
AC Voltmeter : 1 No.
AC Ammeter : 1 No.

**Digital Tachometer** 

Range : 19,999 rpm

Type : Contact / Non-contact

**Protection Devices** 

MCB (TPN) : 1No Glass Fuse : 1No

Grounding Nut : Available at the rear side of the panel

## **Experiments Can be performed:**

Study about three phase squirrel cage induction motor with following topics.

- Understanding fundamentals and operational working principles of Star Delta Starter
- Running and reversing phenomenon
- Slip test measurement
- Performance at no-load test and correspondingly calculate equivalent parameters and power factor
- Performance at load condition.

# **Supporting Accessories supplied with Product**

- Patch Cords of different color scheme
- Single Phase and three Phase Mains Cord
- Extra Glass Fuses
- Operating Manual (softcopy)
- Digital Tachometer
- 6A, Three Phase Closed Type Autotransformer (Optional, to conduct block rotor test)

\*\*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.

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