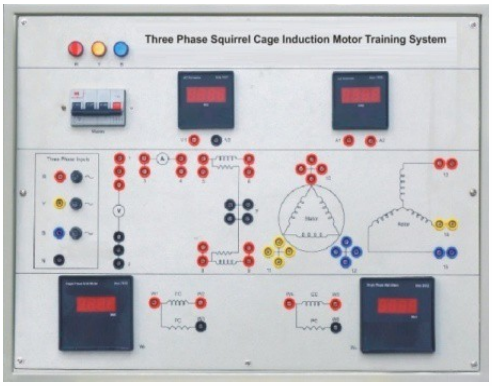

Introduction

The Three Phase Squirrel Cage Induction Motor Training System is a versatile and adaptable setup designed for electrical laboratories. It enables students to gain a thorough understanding of the basic concepts, construction, and working of a three-phase squirrel cage induction motor.

The system is designed with a simple and user-friendly panel layout, allowing students to make connections independently and perform experiments with ease. Additionally, the setup incorporates motor reversing concepts, enabling study of direction control using contactor-based circuits.

Note: Shown image is for illustration purposes only. Actual product may vary.

Training Objectives

- To understand the construction and working of a three-phase induction motor
- To study operational characteristics of squirrel cage motors
- To perform forward and reverse operation of the motor
- To understand contactor-based direction control
- To measure electrical parameters during operation and reversal
- To demonstrate industrial applications of motor control systems

Key Features

- Digital microcontroller-based measuring instruments with high accuracy and resolution
- Screen-printed symbols, circuit diagrams, and graphics for easy understanding
- Standard BS-10 terminals with patch cords for safe connections
- Copper-wound motor for long service life
- Class “F” insulation for enhanced thermal protection
- Contact/non-contact digital speed measurement facility

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

- Equipped with supply indication lamps
- Simple and student-friendly panel design

System Components

Three Phase Induction Motor

- Type : Squirrel Cage
- Power Rating : 1 HP
- Voltage Rating : 415 V AC ±10%, 50 Hz
- Current Rating : As per standard
- Speed : 1440 RPM ±10%
- Insulation : Class 'F'

Control & Reversing Section

- Contactor-based forward and reverse control arrangement
- ON / OFF switching control
- Electrical interlocking for safe operation
- Clearly defined terminal points for wiring

Measurement Section

- **AC Voltmeter** : 0 – 500 V
- **AC Ammeter** : 0 – 10 A

Digital Tachometer

- Range : Up to 19,999 RPM
- Type : Contact / Non-contact

Machine Base

- Material : MS "C" Channel
- Construction : Heavy-duty with proper interconnections

Technical Specifications

Mains Supply

- Voltage : 415 V AC ±10%
- Frequency : 50 Hz

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

Protection Devices

- MCB (TPN) : 16 A
- Glass Fuse : 5 A

Scope of Learning / Experiments

- Study of three-phase squirrel cage induction motor
- Understanding fundamentals and operational working principles
- Forward and reverse operation of 3-phase motor
- Study of contactor-based direction control
- Measurement of voltage and current during operation
- Observation of motor behavior during reversal
- Demonstration of industrial motor reversing applications

Supporting Accessories Supplied

- Patch cords with different color schemes
- Single-phase and three-phase mains cords
- Extra glass fuses
- Digital tachometer
- Learning material manual (soft copy)

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.