

# **DC Shunt Motor Training System**



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

#### Introduction

DC Shunt Wound Motor Training System is an important and exclusively designed product for electrical laboratories. DC Machines are an important part of Electrical Engineering Syllabus. It provides complete learning contents to enhance practical knowledge and explains students the fundamental concepts of DC Shunt Machine.

It can aptly be employed for performing various exercises like Motor Starting, Speed Control through armature and flux field control method & load Characteristics etc. Thus the product makes the subject completely understandable.

#### **Product Features**

- Machine with standard mechanical loading structure
- Machine with standard tabular spring balance with zero adjustment facility
- Machine winding consist of copper for long term service
- Machine Conforms to all leading industrial standards with Class "F" Insulation
- Brake-Drum/Pulley (Aluminum or MS Casting) with heat suppression facility inside it
- Provided with non contact/contact type Digital speed measuring equipment
- Inbuilt DC Power Drive of suitable rating with overload protection
- Heavy Duty Base/Channel with facility to concrete machine using suitable heavy nuts and bolts
- Control panel with digital microcontroller based measuring devices with high accuracy and resolution
- Front board consist of MS Material with power coating / epoxy paint 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
- Screen printed diagrammatic representation for the ease of connections.
- Product provide with protection fuses, colored patch cords, single phase cords, learning manual contents having theory, operating procedure with connecting diagram, FAQ, Glossary, etc

## **Technical Specifications**

**Operation Voltage of Control Panel** : 220VAC ± 10%, 50Hz

**DC Machine** 

Type : Shunt

Power Rating : 0.5HP to 3HP Voltage Rating : 220VDC  $\pm$  10% Field Excitation : 200VDC  $\pm$  10% Speed : 1500 rpm  $\pm$  10%

Insulation : Class 'F'
Winding : Copper
Duty : Continuous

Enclosure : SPDP

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 : Powder coated/epoxy paint with terminals and fuses brought out at

the top

Machine Base : MS "C" Channel with suitable interconnection

**Digital Meters used** 

DC Voltmeter : 300V DC Ammeter : 20A (2 nos)

**DC Power Supply** 

Output Fixed voltage  $: 200 \text{VDC} \pm 10\%$ Output Variable Voltage  $: 0 - 240 \text{VDC} \pm 10\%$ 

Current Rating : Based on Power Rating of Machine

Protection : Overload Protection

**Digital Tachometer** 

Range : 19,999 rpm

Type : Contact / Non-contact

**Protection Devices** 

MCB (DP) : 1No Glass Fuse : 3Nos.

Grounding Nut : Available at the rear side of the panel

## **Experiments Can be performed:**

- Running and reversing phenomenon
- Study of self excited DC Shunt Motor
- Study of Separately Excited DC Shunt Motor
- Study of no load characteristic of DC Shunt Motor
- Study of Load Characteristic of DC Shunt Motor
- Speed Control of DC Shunt Motor by Field Current control Method
- Speed Control of DC Shunt Motor by Armature Voltage Control method

## **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, 2200hms

\*\*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.

ANTEKNOLOGIES Near Himshikha Public School Distt. Pathankot, Punjab – 145001 Email Us: <a href="mailto:admin@anteknologies.com">admin@anteknologies.com</a>
<a href="mailto:sales@anteknologies.com">sales@anteknologies.com</a>

**Contact Number**: +91-9910307503,

+91-8725829339