DC Machine Lab-I



Nvis 7007 DC Machine Lab-I is an adaptable training system for the Electrical laboratories. It can be aptly employed for understanding the basic concepts and functioning of DC Motors and Generators. The product provides hands-on experiments like Speed control, Torque-Speed Characteristics, Torque-Current Characteristics, N-I Characteristics etc. Thus it also provides explicit understanding of the subject.

Features

- Electrical Loading Arrangement
- · Flexible Shaft Coupling Arrangement
- Control board consist of high grade FRP material to provide utmost safety to the users
- · Provided with Digital Tachometer
- Machine with Class "B" Insulation
- Heavy Duty Base/Channel
- Terminals provided to use the optional externally
- Designed by considering all the safety standards
- Diagrammatic representation for the ease of connections
- Exclusive and Compact Design
- Product Tutorial (CD)

Scope of Learning

Study of:

- No Load Characteristics of DC Shunt Motor
- Load Characteristics of Separately Excited DC Shunt Generator
- Speed Control of DC Shunt Motor by Field current control and Armature voltage control methods
- Load Characteristics of Separately Excited DC Shunt Motor
- Self Excited DC Shunt Motor

Technical Specifications

 $Machine \, Specifications: \, Both \, the \, machines \, are \, flexibly \, coupled$

and mounted on a "C" Channel base

DC Machines (2 Nos.)

Type : Shunt
Rating : ½ HP

(Also available with 1HP, 2HP and 3HP)

Voltage Rating : 220V ± 10% (Please refer Specification

on the motor)

Speed: $1500 \text{ RPM} \pm 7.5\%$

Insulation : Class 'B'

Digital Meters used

DC Voltmeter : 300V (2 nos.)

DC Ammeter : 5A (4 nos.)

Digital Tachometer : 20,000 RPM

Optional

- DC Power Supply Nvis 725A/Nvis 725B (for machines rated upto 2HP/3HP respectively)
- Resistive Load Nvis 726/Nvis 7067 (for machines rated upto 1HP/ 2HP & 3HP respectively)
- Rheostat, 2.8A, 2200
- · 3 Point Starter



