



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

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

Machines Specifications

Both the Machines are flexibly coupled and mounted on a single “C” channel base

DC Motor (acts as prime mover)

Type	: Shunt
Rating	: 1HP
Voltage Rating	: 220V ± 10% (Please refer Specification on the motor)
Speed	: 1500 RPM ± 7.5%
Insulation	: Class ‘F’

DC Generator

Type	: DC Shunt
Power Rating	: 0.5HP (Also available with 1HP, 2HP and 3HP)
Rated Current	: 3.2A approximately
Speed	: 1500 rpm ± 7.5%
Insulation Class	: ‘F’

Digital Meters used

DC Voltmeter	: 300V (2nos)
DC Ammeter	: 5A (4 nos)

Digital Tachometer : 19,999 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, 220Ω
- 3 Point Starter