

**Product Name :**  
Electrical Machine Trainer

**Product Code :**  
NLAB-ELECTRICALAB140002



**Description :**

Electrical Machine Trainer

**Technical Specification :**

Electrical Machine Trainer

- 19 Types of Modules & Graphic Boards
- 25 Types of Electrical Machine Assembly
- Experimental Board Rack & Storage Trolley
- Experimental Board Rack (BR-6)
- Installation Capacity : 8 ea
- Dimension : 1480 X 740 X 320 Mm ( W x H x D )
- Board Storage Cabinet ( BS-20)
- Storage Capacity : 13

- Experimental Modules List :
- Field Rheostat : 1 ea
- Starting Rheostat : 1 ea
- AC/DC Machine Load Unit : 1 ea
- Three Phase (Y-?) Load Unit : 1 ea
- Variable R, L, C Load Unit : 1 ea
- AC/DC Power Supply : 1 ea
- AC Volt / Ampere Meter : 1 ea
- DC Volt / Ampere Meter : 1 ea
- DC Milli ammeter : 1 ea
- AC/DC Machine Field Frame : 2 ea
- Auto Driving Unit : 1 ea
- Pole Changing Unit : 1 ea

### **Graphic Board List:**

- DC Machine Board : 1 ea
- Three Phase Machine Board : 1 ea
- Rotary Converter Board : 1 ea
- Compound Motor Board : 1 ea
- Speed Control of Induction Motor Board : 1 ea
- Repulsion Motor Board : 1 ea
- Split Phase Motor Board : 1 ea

### **LIST OF MACHINE PARTS:**

- 3 Pole Rotor & Other Rotors : 6 ea
- Wide Magnetic Pole Pieces : 15 ea
- Shunt Field & Various Field Coil : 10 ea

- Permanent Magnet (Round Type) : 2 ea
- Brush & Brush Holder Set : 3 ea

## **>LIST OF EXPERIMENTS:**

### **BASIC EXPERIMENTS ON GENERATOR :**

- Principle of the Generator
- Single-phase AC Generator using permanent magnet
- DC Generator using permanent magnet
- Separately excited DC shunt wound generator by field coil
- Self-excited DC shunt wound generator by field coil
- Generator's no-load saturation
- Load characteristics of separately excited DC shunt wound generator
- Load characteristics of AC generator
- Principle of 3 phase AC generator
- Revolving field, 3 phase AC generator
- Principle of rotary converter

### **BASIC EXPERIMENTS ON MOTOR:**

#### **Principle of the Motor**

- DC motor using permanent magnet
- DC series wound motor using the field coil
- DC shunt wound motor by starter and field resistor
- DC compound motor
- AC universal motor
- Rotary field of 3 phase induction motor
- Squirrel cage induction motor
- 2 step speed control of induction motor

- Repulsion motor
- Split phase motor by condenser
- Polarized motor

## Naugralabequipments

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