

**46597** DC Series Motor Shunt Generator Lab is a significant training system for Electrical Machines Laboratories designed to demonstrate the operational working and characteristic of DC Shunt Generator under different loading conditions. DC Shunt Generator is a type of Generator whose field winding and armature winding are connected in parallel and acquire properties to behave as almost constant speed DC Machine.

46597 includes various experiments to be conducted such as operational working behavior of DC Shunt Generator, Open Circuit Characteristic, Internal and External Characteristics etc. Diagrammatic representations are provided on the control set-up so that students can make connections by their own. 46597 includes digital panel metes to obtain precise results. Separate terminals are provided to connect the optional accessories externally to the control setup with ease.



### **Features**

- Provided with digital Tachometer
- Electrical Loading arrangement
- Shaft coupling arrangement
- Good quality digital panel meters
- Designed by considering all the safety standards
- Specially designed patch cords for safety purpose
- Diagrammatic representation for the ease of connections
- Exclusive & Compact design
- 2 Year Warranty

### **Scope of Learning**

- Study and Measurement of Open Circuit Characteristic of DC Shunt Generator
- Study and Measurement of Internal characteristic of DC Shunt Generator
- Study and Measurement of External characteristic of DC Shunt Generator

## **Technical Specifications**

#### **Machines Specifications**

Both the Machines are Flexibly Coupled and Mounted on a "C" channel Base

| <b>DC Motor</b> (acts as prime mover) |                           |                         |
|---------------------------------------|---------------------------|-------------------------|
|                                       | Туре                      | : DC Series             |
|                                       | Rating                    | : 2HP                   |
|                                       | Voltage Rating            | :220V±10%               |
|                                       | RPM                       | : 1500 ± 5%             |
|                                       | Insulation                | : "B"                   |
| DC Machine (acts as Generator)        |                           |                         |
|                                       | Туре                      | : DC Shunt              |
|                                       | Rating                    | : 1HP                   |
|                                       | Current                   | :4.1A                   |
|                                       | Generated Voltage         | :180V±10%               |
|                                       | Speed                     | : 1500 rpm ± 7.5%       |
|                                       | Insulation                | : "B"                   |
|                                       | <b>Digital Meters use</b> | d                       |
|                                       | DC Voltmeter              | : 300V (2 Nos.)         |
|                                       | DC Ammeter                | : 10A                   |
|                                       | DCAmmeter                 | :5A                     |
|                                       | <b>Digital Tachometer</b> | :01                     |
|                                       | Dimensions (mm)           | : L 600 x H 450 x D 350 |
|                                       | Weight                    |                         |
|                                       | Panel                     | : 12.5kg (approx.)      |
|                                       | MG set                    | : 54kg (approx.)        |
|                                       |                           |                         |

#### **Optional Accessories**

DC Supply Tesca Order Code - 46501 Resistive Load Tesca Order Code - 46502 Rheostat 220 Ohms, 2.8Amp.

Note: Specifications are subject to change.

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