



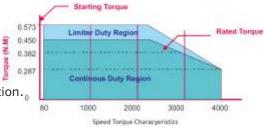
A motor converts supplied electrical energy into mechanical energy. Various types of motors are in common use. Among these, brushless DC motors (BLDC) feature high efficiency and excellent controllability, and are widely used in many applications. The BLDC motor has power-saving advantages relative to other motor types. Trainer kit consist a BLDC Motor with Controller help students to learn about operations and working of BLDC Motor.

Features

- · Diagrammatic representation for the ease of connections.
- Designed by considering all the safety standard.
- Metallic Body.
- Machine with Mechanical Loading Arrangement.
- Exclusive and Compact Design.
- Motor Assembly Mechanical Arrangement for Experiments.

Experiments

- Explain working and Construction of a BLDC Motor.
- Explain working of Hall Sensor.
- Draw N-T (Speed-Torque) characteristic of BLDCMotor.
- Find out BLDC Motor efficiency at different type of load condition.
- Perform running, reversing operation in a BLDC motor.
- · Observe PWM Signal using DSO during Speed Control.



Applications



Note: Specifications are subject to change.

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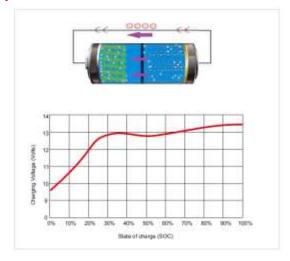
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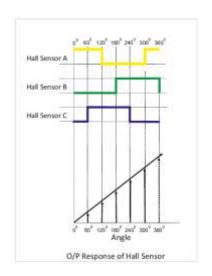
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O/P Responses





Technical Specifications

Machine Type **BLDC Motor** Rating 220W approx.

Voltage Rating 24V

 $3000 \text{ rpm} \pm 10\%$ Speed

Loading arrangement Mechanical

Brake Drum/Pulley Aluminum casted

DC power supply 24V, 10Amp.

On board Digital Panel Meters

DC Voltmeter (1 nos) 0 - 300V DC Ammeter (1 nos) 0 - 10A Digital RPM Meter (0-9999 rpm) : 1 nos. Speed Controlling Method **PWM** Spring Balance 2 nos. DC Supply 24V 10 Amp 1nos.

Inter connection 4mm Patch cord

Motor Assembly 1 nos.

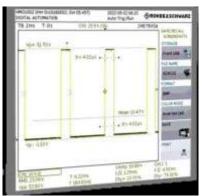
Motor Controller Inside of Trainer

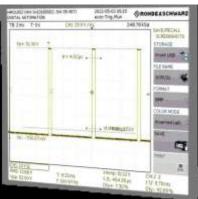
Accessories

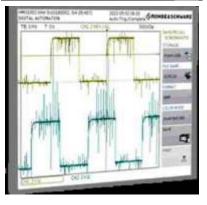
- Operating Manual-1nos.
- Patch Cord-15 nos.
- Wall poster with attractive study content 2Qty.



Real Time signal Images of PWM







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