

## MI-EV12 BLDC (Brushless DC) Motor Trainer

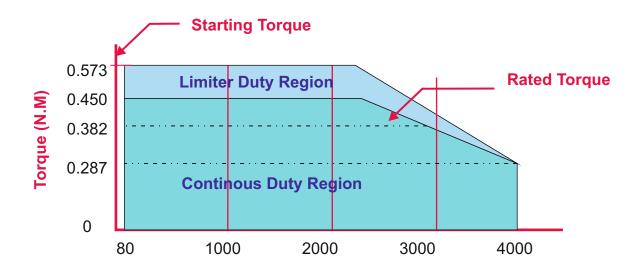




# BLDC (Brushless DC) Motor Trainer MI-EV12

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**

- Study of Motors.
- Study of BLDC Motor and its construction.
- Study of Hall Sensor.
- Study the N-T (Speed -Torque) characteristic of BLDC Motor.
- Study the construction and working of a BLDC Motor.
- Study of running, reversing of BLDC motor.

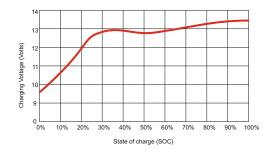


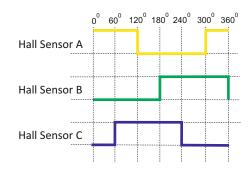
### **Applications**

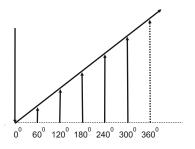


Security Monitoring Machine tool equipment

#### Waveform









#### **Technical Specifications**

Machine Type : BLDC Motor

Rating : 220W approx.

Voltage Rating : 24V

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

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.

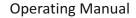
Motor Controller : Inside of Trainer

#### **Accessories**

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







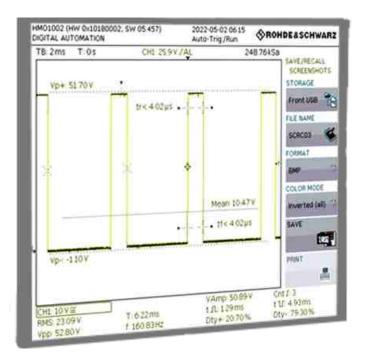
Mains Cord

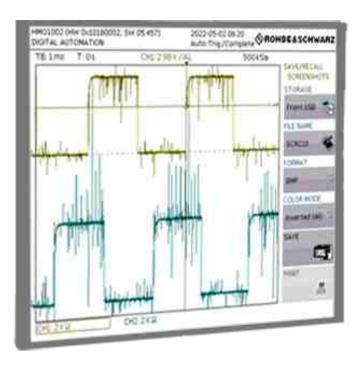


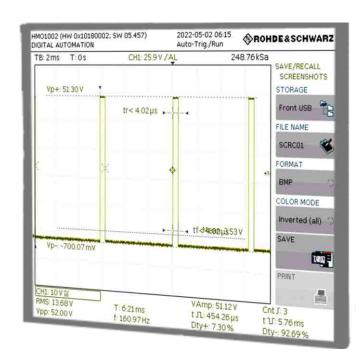
Patch Cord

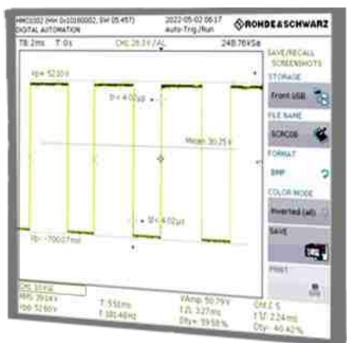


#### Real Time signal Images of PWM in EV-12









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