

## KMG-02 MOTOR GENERATOR TRAINER-II



**KMG-02** Motor Generator Trainer is a rugged training system for the Electrical laboratories mounted on Aluminum profile rack with sturdy table top flat panel. Each panel has ABS molded plastic sturdy enclosure with 4mm shrouded connectors showing circuit diagram & its connection tag numbers for easy understanding and connections. The product helps you to get fully acquainted with the basic concepts and functioning of a Motor Generator Trainer.

### Specifications

- Motor Generator Trainer having control panel should be provided in 40X40mm Aluminum profile rack with sturdy table top flat panel.
- Should have 8 no's of ABS plastic panel mounted on the aluminum rack with mimic diagram
- All input & output are terminated in 4mm shrouded connector, Should provide 4mm banana cable for experiments.
- Should have 3phase DOL starter 4pole MCB, contractor & relay panel
  - 4 pole MCB of 415 V/4A.
  - DOL 9A Contactor with 230V / 50 Hz / 11VA COIL .
  - Bimetallic thermal O/L relay with range 1.4A - 2.3A
- Should have 3 phase multifunction meter panel.
  - Bidirectional Multifunction
  - 3 Phase ¾ wire, 415V, CT Input 5A
  - LCD/LED display, Aux supply 230V, 45-65 Hz, 5W
  - V, A, Hz, Pf, KVA, KW, KWH
- Should have FWD/REV, STAR/DELTA Switch panel.
  - FWD/REV, 3 pole 3 way switch, 6A/440V.
  - Star/Delta switch 3 pole, 3 way, 6A/440V.
- Should have 1 ph. Motor, Voltmeter & Ammeter Panel.
  - 1 ph. MCBs of 4A.
  - 1 no. 0-300V Voltmeter & 0-5ADC Ammeter.
- Should have SCR controlled variable DC panel.(2nos)
  - Full bridge SCR based 0V-195V / 3 Amp cosine firing.
  - Fixed 220V DC Excitation output
  - 0-300V Voltmeter & 0-2AAC Ammeter

- Should have Instrumentation panel.
  - Signal conditioning circuit for speed, torque in kg to give output 0-2.5Vdc.
  - Selector switch for Speed and Torque.
- Should have 1 Phase AC/DC Resistive Load panel.
  - 750E/600E/300E/212E/162E/ 125E/112E/100E 200W Load.
  - 9 Way Selector switch for selection of load resistors
- 1/2hp DC Motor/Generator Coupled with 3 Phase Motor/Generator

### Experiment Motor List

- DC motor : Speed torque curve of i) Shunt motor, ii) DC series motor, iii) separately excited DC motor, iv) DC compound motor.
- DC generator : V-I, Efficiency curve for i) DC shunt generator, ii) DC series generator, iii) DC separately excited generator, iv) DC compound generator, v) OCC of shunt generator.
- 3Phase AC motor : i) speed torque curve of wound rotor I.M. with rotor shorted & with different rotor resistance, ii) DOL/Star-Delta starter, rotor resistance starter, iii) Application of sync. Motor as pf improvement device-V curves.
- 3Ø AC Generator: Synchronous generator V-I curves.

Note : Specifications can be altered without notice in our constant efforts for improvement.