

## KMT-01 ELECTRICAL MACHINE TRAINER



**KMT-01** Electrical Machine 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 an Electrical Machines & Generator.

### Specifications

- Machine trainer having control panel should provided in 40X40mm Aluminum profile rack with sturdy table top flat panel.
- Should have 16 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 / 11VACOIL .
  - Bimetallic thermal O/L relay with range 1.4A- 2.3A
- Should have 3 phase multifunction meter panel (2nos).
  - Bidirectional Multifunction
  - 3 Phase  $\frac{3}{4}$  wire, 415V, CT Input 5A
  - LCD/LED display, Aux supply 230V, 45-65 Hz, 5W
  - V.I., 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 Rotor & Sync panel.
  - Rotor resistors of Short, open, DC Ext, 15E, 21E, 30E each.
  - Rotor resistor selector switch, 3 pole, 6 Way 6A/440V.
  - DC Rotor excitation with circuit breaker (3Amp)
- Should have 1 ph. Motor, Voltmeter & Ammeter Panel.

- 1 ph. MCBs of 4A.
- 1 no. 0-300V Voltmeter & 0-2AAmmeter.
- Should have SCR controlled variable DC panel. (3nos)
  - Full bridge SCR based 0V-195V / 3 Amp cosine firing.
  - Fixed 220V DC Excitation output
  - 0-300V Voltmeter & 0-2AAmmeter
- 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 Synchronization panel.
  - Should have 3 bulbs to check synchronization for generation.
- Should have Variable AC/DC panel.
  - Variable 0-200V/3AAC output
  - Variable 0-200V/3ADC output.
- 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
- Should have 3 Phase Resistive Load panel.
  - 10K/5K/3.5K/2.5K/2K/1.5K/OFF 200W Load.
  - 7 Way Selector switch for selection of load resistors
- Should have 3 Phase Inductive Load panel.
  - 0-0.75-3H Inductive Load.
- Should have 3 Phase Capacitive Load panel.
  - 0-2.5uf capacitive Load.

### Experiment Motor List

- 3 Phase AC Slip ring star/delta Induction Motor
- Capacitor Start 1 Phase Induction Motor
- Split phase 1 Phase Induction Motor
- 3 Phase Synchronous Motor
- Universal Motor
- 3 phase salient pole Alternator
- DC Machine Motor/Generator Trunion
- 3 phase 2 speed Induction Motor
- DC Machine Motor.

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