

KMT-08

UNIVERSAL MOTOR TRAINER

MAKE : KITEK

Universal Motor Trainer is an aesthetically designed stout training system mounted on Aluminium Profile rack with sturdy table top Panel. Each Panel has ABS molded plastic sturdy enclosure with 4mm shrouded connectors showing connection mimic diagram with tag numbers for easy understanding. Trainer helps in analyzing Universal Motor's Direction Control & Speed –Torque Characteristics with AC & DC Power Supply

SPECIFICATION

- Machine trainer having control panel provided in 30X30mm Aluminum profile rack with 3 railing sturdy table top flat panel / MS ENCLOSURE
- Electrical Control panels are provided in Slidable ABS plastic panel mounted on the aluminum rack with mimic diagram.
- Modular type flat panel carrying various high voltage components housed in ABS plastic enclosure to minimize shock possibility.
- Modular & Slidable panel for easy site servicing not close control
- Motor/Machine Provided with Earth socket for protection.
- All input & output are terminated in 4mm BS-10 shrouded connector, provided with 4mm shrouded cable for experiments.



ALUMINIUM PROFILE

STANDARD SUPPLY

- **1 Phase AC Power Supply Panel - MP2**
 - ~ 1Pole 230V/4A MCB C Curve (2 No's)
 - ~ Input Supply Indicators (2No's).
 - ~ Lamp Load E27 Socket with ON/OFF 6A toggle Switch.
- **1 Phase AC Measurement Panel - MP3**
 - ~ Multifunction Meter
 - ~ 1 Phase 230V, CT Input 5A, Accuracy Class 1
 - ~ Alphanumeric LED/LCD display, Aux supply 230V AC/DC, 45-65 Hz, 5W
 - ~ V, I, Hz, Pf, KVA, KW, KWH, THD
 - ~ RS485 Communication Modbus RTU (Optional)
- **RPM Panel - MP10**
 - ~ Dual Core Cortex Microcontroller operating @133MHz, 2MB Flash Memory
 - ~ 16x2 LCD Display
 - ~ 1 Key Push Function Keypad
 - ~ RPM Sensor Socket
 - ~ RS-485 Port Modbus Device Communication
 - ~ USB Port PC Communication
- **DC Meter Panel - MP4**
 - ~ DC Voltmeter 0-300V
 - ~ DC Ammeter 0-5A
- **Variable AC/DC Voltage Injector Panel - MP7**
 - ~ Variable 0-200V/3A AC output
 - ~ Variable 0-200V/3A DC output.

MOTORS (1HP Motor included in Standard Supply)

- **Universal Motor coupled with Aluminum Drum**
 - ~ 230V AC/ 150V DC,
 - ~ 300W, 4Pole/ 4 Terminal, 1500RPM
 - ~ AC/DC Operation & Direction Change
 - ~ Commutator / brush arrangement Rotor , 4Terminal Stator
 - ~ Chasis mounted, 19mm dia, 90mm, Frame
 - ~ Proximity Sensor to measure RPM.
 - ~ Mechanical Loading 10kg (2No's) spring balance
 - ~ Friction Break pulley arrangements, 61mmdia



MS ENCLOSURE

ACCESSORIES

- ~ Set of 4mm Shrouded Cables required for experiments
- ~ Set of Manuals with Experiments.
- ~ Handheld Touchless Tacho Meter for Speed Measurement (Optional)
- ~ 1 Phase 250V/3A Variac (Optional)
- ~ Demo CD showing Experiments (Optional)



• EXPERIMENT LIST

- ~ Study of Speed-Torque Characteristics of Universal motor on AC /DC Operation
- ~ Study of Efficiency and Input power factor of Universal motor for various loading conditions on AC/DC Operation

OPTIONAL SUPPLY

• DAQ

- ~ Windows based data Logging software to measure, monitor and datalog AC Multifunction Meter, DC Multifunction Meter, RPM, Torque simultaneously.

• DC Motor Drive Panel - MP6

- ~ Variable 0V-200V/8A DC Full Bridge, SCR based, Cosine firing
- ~ Fixed Field Supply 200V/2A DC
- ~ 0-300V DC Voltmeter & 0-2A DC Ammeter with polarity protection diode
- ~ Led Indication for Power, Trip & Field

• Working Table - KWT-01

- ~ MS Work Table Size 1200x750x850 (L x W x H), with four castor wheels including two lockable wheels with Drawer size of L450mm x W500mm x H200mm.

ORDERING INFO

Part No	1	2	3	4	5
KMT-08	1,2,3,4	A/M	0,1	0,1	0,1

SLOT	DESCRIPTION	OPTIONS			
1	Capacity	1-300W Motor	2-2HP Motor	3-3HP Motor	4-5HP Motor
2	Panel Structure	A-Aluminum	M-MS Enclosure		
3	DC Drive	0-No	1-Yes		
4	DAQ	0-No	1-Yes		
5	Working Table	0-No	1-Yes		

