



SALIENT FEATURES:

- 01 Facilitates easy and safe wiring by students due to use of 4mm sturdy Shrouded banana patch cords & shrouded socket arrangements.
- 02 All machines are mounted on finely painted sturdy base frame with easy machine interchangeability. Use of gear coupling facilitates screwless coupling. interchangeability. Use of gear coupling facilitates screwless coupling.
- 03 With due emphasis on student safety machines operate upto 300W power levels and upto 1500 RPM, without compromising on didactic use. Able to draw all graphs.
- 04 Trunnion mounted DC Integrated machine is used as Dynamometer for loading other machines (Motors / generators both); unlike magnetic powder brake or eddy current brake which can load only coupled Motors and not generators, with facility to measure shaft power using electronic torque / speed Measurement

DC MOTOR COUPLED WITH DC MOTOR TRAINER

NAME OF EXPERIMENTS

- Experiment –1 Speed torque curve and efficiency of DC shunt motor with DC motor
- Experiment -2 Speed torque curve and efficiency of DC series motor with DC motor.
- Experiment -3 Speed torque curve and efficiency of separately excited DC motor with DC motor.
- Experiment -4 Speed torque curve and efficiency of DC compound motor with DC motor.
- Experiment -5 Output volt-amp characteristics of DC shunt generator with DC motor .
- Experiment –6 Efficiency of DC shunt generator with DC motor.
- Experiment -7 Output volt-amp characteristics of DC separately excited generator with DC motor.
- Experiment -8 Efficiency of DC separately excited generator with DC motor.
- Experiment –9 Output volt-amp characteristics of DC series generator with DC motor.

PANELS PROVIDED

- 01 Aluminum Machine trainer Rack
- 02 DC voltmeter & Ammeter and Torque Measurement Meter
- 03 Variable DC Power Supply
- 04 Input Single Phase DOL Starter Panel AC DC Fix / Variable Supply
- 05 DC Load Resistor
- 06 Lamp Load
- 07 Extension Board

MOTORS PROVIDED

- 01 DC Integrated (Trunion Mounted) Motor
- 02 DC Integrated (Foot mounted) Motor

ACCESSORIES PROVIDED

- 01 Hand held digital Tachometer
- 02 Shrouded connecting leads 4mm 50 / 100cm assorted Red & Black

Note: Specifications are subject to change.

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Technical Specification of Panels



DC VOLTMETER & AMMETER WITH TORQUE MEASUREMENT **MFTFR**

- TWO DPM DC voltmeter (0-1000V)
- TWO DPM DC Ammeter (0-20A)
- Torque Measurement Meter
- Shrouded socket 16Nos.

DC LOAD RESISTOR



- 750E/600E/300E/212E/162E/ 125E/112E/100E/400W /8 taps + OFF + separate 60E tap For DC series Gen.
- Load Resistence switch 3 POL 7 Way/10Amp.
- Cooling Fan size 4" 230V Operated
- Shrouded socket 6Nos.

VARIABLE DC POWER SUPPLY



- 1 Half bridge SCR based 0V-200V / 3 Amp cosine firing with linear characteristics, 3 Nos. Switch SPDT to On/Off with indication
- 2 Three Nos. of these supplies required for DC Armature, DC motor field and AC generator field.
- 3 Shrouded socket 8Nos.



LAMP LOAD

- 3 Nos. Lamp 100W with Holder & Switch
- Shrouded socket 12Nos.

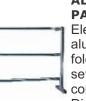
EXTENSION BOARD Order Code - 69715.

- Operating Voltage 230VAC ± 10% at 50Hz
- ON OFF Switch with indicator
- Eight Nos. five pin 5 Amp Electrical Sockets

INPUT SINGLE PHASE DOL STARTER PANEL AC DC FIX / VARIABLE SUPPLY

- MCB 2 pole 10A with indicator
- Emergency Switch
 Push button switch for Stop/Start
- DOL 9A Contractor with 230V / 50 Hz / 11VA Coil .
- Shrouded socket 4Nos. Variable AC Supply (0-200V)

 Shrouded socket 6Nos.
- Fix/Variable DC Supply (0-200V)
- Shrouded socket 4Nos.



ALUMINUM FRAME - MODULAR PANFIS

Electrical motor trainer rack madeup aluminium profile size 40×40mm, foldable and light in weight 10 panel setup can be interchange convidently to perform experiments. Dimention Length1100×Hieaht 1000×Depth 350mm.

Technical Specification of Motors



DC INTEGRATED (TRUNION MOUNTED) MOTOR

Voltage: Varm= 180V Vfield = 180V

Capacity -300W/2 Pole m/c, RPM - 1500, Shrouded Socket - 12

Rotor Construction: Standard commutator / brush arrangement with laminated stack,

brought out on 2 terminals

Stator construction: Separately excited field winding with laminated solid yoke 2 pole

and series winding brought out on 4 terminals.

Toque characteristic: Provision of load cells 6 Kg. 2 No. assembly to measure the

torque.



DC INTEGRATED (FOOT MOUNTED) MACHINE

Voltage: Varm= 180V Vfield = 180V

Capacity - 300W/4 Pole m/c, RPM - 1500, Shrouded Socket - 12

Rotor Construction: Standard commutator / brush arrangement with laminated stack,

brought out on 2 terminals

Stator construction: Separately excited field winding with laminated solid yoke 2 pole

and series winding brought out on 2 terminals.

Note: Specifications are subject to change.

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