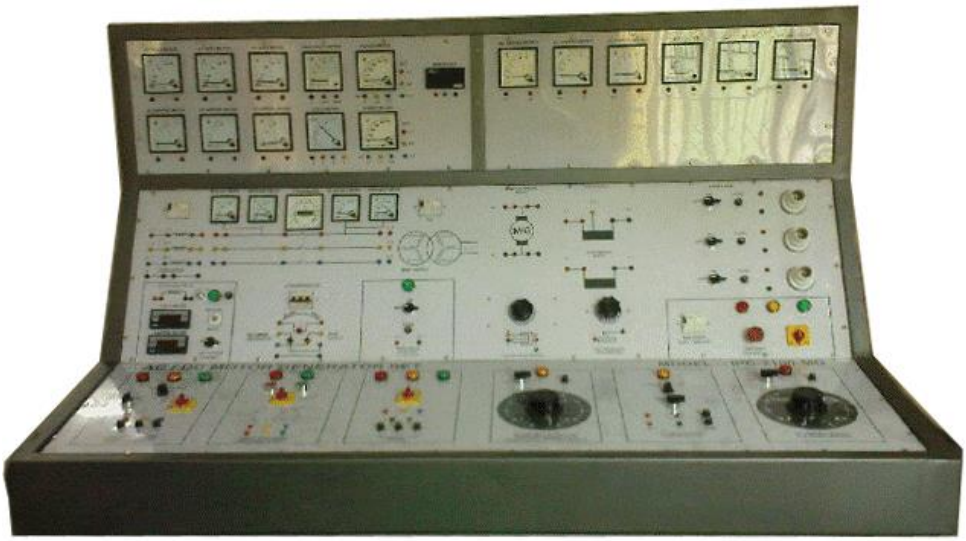
IPC The Engineering Education Technology Company, Since 1983



AC DC MOTOR GENERATOR SET
MODEL: - IPC-2300 – MG

- Range of products to allow students to study different electrical machines.
- Works with the needs of your training course.
- Ideal for academic courses and vocational training.
- Includes manually controlled tests, with standard instruments.
- Shows student the advantages and disadvantages of different electrical machines.
- Includes user guides with suggested experiments.
- Shows why different machines do different jobs.

Description: - IPC electrical machine teaching system meets the needs of many colleges and training courses. It gives practical support for teaching electrical machines technology at all academic levels.
The electrical machines teaching system starts with the test bed and an optional selection of electrical machines. It includes a wide variety of instruments and motor drives. The instruments and motor drives are fitted into the instrument frame.

NOTE: We reserve the rights to change the shape and design of the trainer without prior notice.
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Test Bed: - A test bed that gives electrical power and a variable load to test the optional electrical machines.

Motor Drives: - An electronic drive that gives a pulse width modulated (PWM) variable frequency output for A.C machine speed control.(Frequency Inverter)

Thyristor Drive System: - An electronic drive that shows how to use thyristor circuits to drive d.c. machines.

Meters: - meters to measure A.C & D.C currents, voltages, power, frequency, R.P.M meter.

METERS:-

DC AMMETER: - Three separate moving coil ammeters, range 0 to 3A, 0 to 5A, and 0 to 10A with protection panel mounted size 96 x 96.

DC VOLTMETER: - Three separate moving coil voltmeters, range 0 to 300V (2 Nos.), 0 to 500V, with protection panel mounted size 96 x 96.

AC AMMETER: - Three separate moving coil ammeters, range 0 to 3A, 0 to 6A, and 0 to 10A with protection panel mounted size 96 x 96

AC VOLTMETER: - Three separate moving coil ammeters, range 0 to 500V (3 Nos.)With protection panel mounted size 96 x 96.

AC WATT METER: - Two separate watt meters, each instruments having range 0 to 1000W, current and voltage range as availability.

SPEED INDICATOR: - Digital R.P.M meter rage 0 to 9999 R.P.M

FREQUENCY METER: - Analogue frequency meter range 45 to 65 Hz.

POWER FACTOR METER: - Power factor meter 0 to 90 degree movement.

SYNCHROSCOPE: - Rotary Synchroscope and three cross connected lamps for use when synchronizing two, three phase system e.g. an alternator to main supply / second alternator.

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OPTIONAL LOADING MODULES:-

Loading modules: - Variable loads of resistance, capacitance and inductance.

Starters, Control Modules: - work with selected machines to start them and control their speed.

Break Control Unit:-

OPTIONAL ELECTRICAL MACHINES:-

Electrical Machines: - Electrical machines datasheet for full details.

- DC Compound Machine
- Three Phase Synchronous Generator
- Three Phase Induction Motor 5H.P
- Three Phase Induction Motor 3H.P
- Single Phase Induction Motor 1H.P

LIST OF EXPERIMENT FOR AC DC MOTOER GENERATOR SET:-

EXPERIMENTS FOR DC SECTION:-

- Study of DC Separately Excited Shunt Generator.
- Load Characteristics of the DC Shunt Generator.
- Magnetic Characteristics of the Separately Excited DC Generator.
- Component of Voltage Drop in DC Shunt Generator.
- Load Characteristics of the DC Series Generator.
- The DC Compound Generator.
- DC Shunt Motor.
- To Study the torque VS Speed characteristics and calculate the efficiency of DC Shunt Wound Motor.
- Performance test of Shunt Motor using Swinburne Test.
- Load Characteristics of the DC Series Motor.
- Speed Control of the DC Motor.

EXPERIMENT FOR AC SECTION:-

Study of Three Phase Synchronous Generator.

- The Resistance Test.
- Open Circuit Test.
- Short Circuit Test.
- Voltage Regulation.
- Load Test.
- Per-Phase Impedance.
- Synchronization of an Alternator with Bus Bar.
- Load Test of a Three Phase Induction Motor.

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