Demo plug & play motor (AC or DC)



The dismantled motors are electric motors with open housing that can be mechanically and electrically configured for creating various electrical motors and generators, without the use of specific tools. The various functions can be obtained by simple coupling, perfectly explained in the instructions.

Although powered by non-hazardous voltages (< 50VAC / < 100VDC), the powering up of these products is restricted to authorised staff due to the lack of protective housing.



ref. DEMO-AC

DEMO-AC: 48V ALTERNATING CURRENT

Works with the 3-phase variable 0-48V 15A power supply (not included). See Ref. ALI-DEMO.

Presentation: The interconnection of the widings on to a didactic terminal box provides a visual understanding of the coil of the various electrical machines and their functions. Users are able to see the position of the brushes and their movement. It is powered by 48 volt ELV. A full user manual is provided with the motor/alternator.

TECHNICAL DESCRIPTION

- Open frame.
- An alternating current stator.
- An aluminium base.
- Two aluminium bearings for supporting the motor shaft.
- Possibility for studying 8 different motors, with safety terminal connections Single-phase motor with capacitors

2-pole star connection three-phase motor

4-pole delta connection three-phase motor

Star-delta three-phase asynchronous motor

Dahlander connection asynchronous squirrel cage motor

Three-phase slip-ring motor

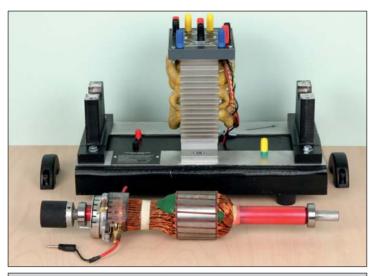
Synchronous three-phase motor

Three-phase alternator

- Extension shafts.
- One squirrel cage rotor.
- One slip ring rotor. Enables the functioning of the motor and the alternator.
- One rotating brush holder.
- One brush holder mount.
- Three brushes for the slip-ring motor.
- Half coupling.
- A rotating centrifugal contact.
- A user manual.

DEVELOPED PRACTICAL WORK

- Single-phase alternating motor.
- Alternating motor theory.
- Repulsion-induction motor with auxiliary wiring.
- Capacitor motor.
- Capacitor start and run motor.
- Three-phase alternating motor theory.
- 2-pole star motor.
- 4-pole delta motor.
- · Slip-ring motor.
- Alternator theory.
- Three-phase alternator functions.
- Synchronous motor.



ref. DEMO-DC

DEMO-DC: 48V DIRECT CURRENT UNIT

Works with the 3-phase variable 0-48V 15A power supply (not included). See Ref. ALI-DEMO.

Presentation: The interconnection of the windings on to a didactic terminal box provides a visual understanding of the coil of the various electrical machines and their functions. Series poles can be added or removed to/from the shunt poles to create a compound machine. Users are able to see the position of the brushes and their movement. It is powered by 48 volt ELV. A full user manual is provided with the motor/alternator.

TECHNICAL DESCRIPTION

- Open frame.
- A direct current stator.
- An aluminium base.
- Two aluminium bearings for supporting the motor shaft.
- Possibility for studying 14 different motors, with safety terminal connections DC shunt motor/DC shunt motor with commutating poles

DC series motor/DC series motor with commutating poles

Long shunt compound generator

Long shunt compound generator with commutating poles

Short shunt compound motor

Short shunt compound motor with commutating poles.

Separately excited shunt motor

Universal motor without commutating poles/Universal motor with commutating poles

Repulsion motor

Series generator with commutating poles.

Separately excited series source rotor generator

Separately excited series source stator generator

Self-excited long shunt compound generator

Self-excited short shunt compound generator

- An armature
- Half coupling
- A user manual.

DEVELOPED PRACTICAL WORK

- Direct current motor theory.
- Armature reaction.
- Winding polarities.
- DC shunt motor
- DC shunt motor with commutating poles.
- Speed control.
- Long shunt compound DC motor.
- Long shunt compound DC motor with commutating poles.
- Short shunt compound DC motor.
- Short shunt compound DC motor with commutating poles.
- DC shunt motor, separately excited.
- DC generator theory.
- DC shunt generator.
- Separately excited generator.
- Series DC generator with commutating poles.
- Series-excitation generator.
- Compound generator.
- Long shunt compound DC generator.
- Short shunt compound DC motor.