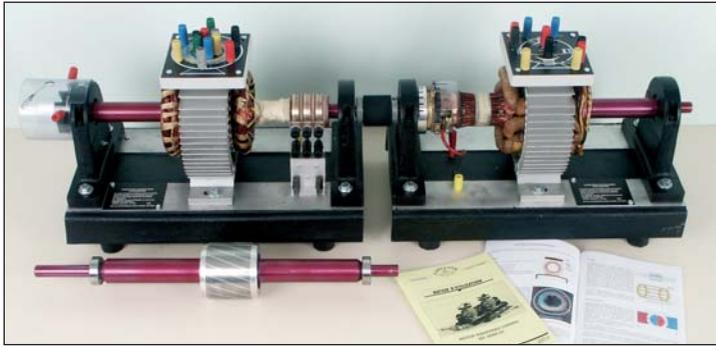
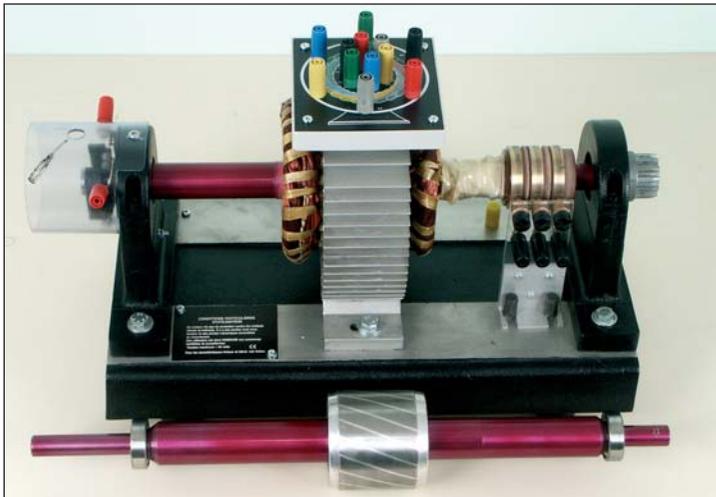




Demo plug & play motor (AC or DC)



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 ($< 50\text{VAC} < 100\text{VDC}$), the powering up of these products is restricted to authorised staff due to the lack of protective housing.



ref. DEMO-AC (AC SET IN 48V)

DEMO-AC: 48V ALTERNATING CURRENT

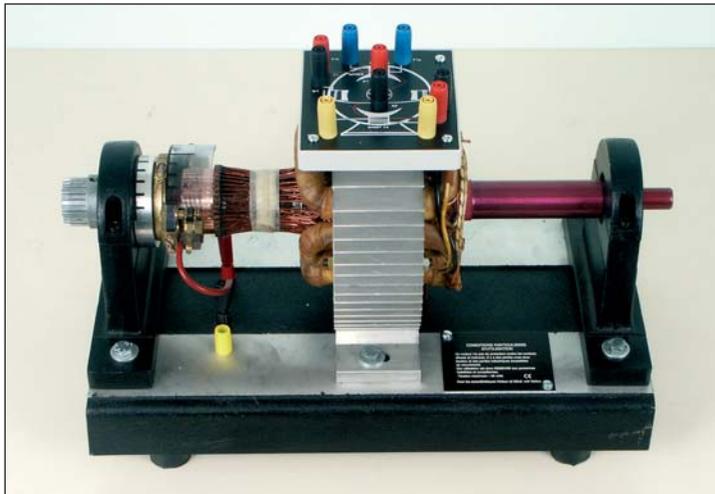
Presentation: The interconnection of the windings on to a didactic terminal box provides a visual understanding of the coil of the various electrical machines and their functions. Users are able to see the position of the brushes and their movement. It is powered by 48 volt ELV. A full user manual is 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 (DC SET IN 48V)

DEMO-DC: 48V DIRECT CURRENT UNIT

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.



Dismantled motor



ref. MAS-DEM

SIEMENS

MAS-DEM educational objective is theoretical research into, and discovery of, the three-phase asynchronous squirrel-cage motor. Presented in a case containing the following items:

- The motor carcass with stator wiring, fitted with a terminal block.
- The squirrel-cage rotor.
- The left and right flanges + fan.
- Screws + screwdriver kit

The 370W motor can be assembled and disassembled depending on needs. This provides a better understanding of three-phase motor technology. The instructions cover all theoretical research into the operation and technology involved in the three-phase squirrel-cage motor

FEATURES OF THE CASE

- Dim. 534 x 427 x 182mm
- Weight: 13Kg