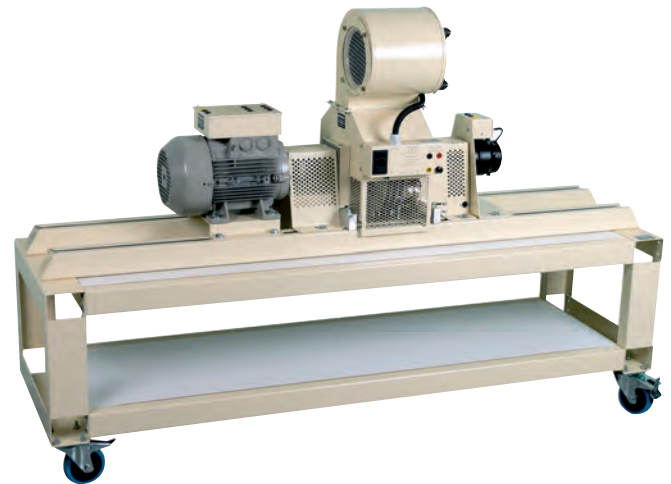


## Study of an asynchronous motor 1500W with powder brake



Sets of modules (H=250mm) and rotating machinery for studying an asynchronous motor 1500W coupled with a powder brake with torque sensor and tachometer generator.

### ref. QUICK-F (version monophasée)

Requires connection to a mains single-phase electricity supply 230V AC

### ref. QUICK-FT (version triphasée)

Requires connection to a mains 3-phase electricity supply 3 x 400V AC + Neutral

### Comprises

- 1 Power supply module with RC circuit-breaker and emergency stop button.
  - 1 Speed controller module 1500W (single-phase or 3-phase according to version) with SoMove programming software.
  - 1 Module with magneto-thermal circuit-breaker for motor support.
  - 1 Wattmeter switch module.
  - 1 Power supply module 0-20V DC for powder brake supply.
  - 1 Voltage digital display module.
  - 1 Current digital display module.
  - 1 Motor torque digital display module.
  - 1 Rotation speed digital display module.
  - 1 Analogue wattmeter RMS AC+DC.
  - 1 Complete motor set on wheeled cart equipped with three-phase asynchronous motor 230/400V - 1500W, powder brake, rotary torque sensor, and tachometer generator.
  - 1 set of safety leads for carrying out the different practical works.
- A version without motor set can be offered on request.

### EDUCATIONAL OBJECTIVES

- Study the wiring diagram between a speed controller and an asynchronous motor.
- Study the configuration of a speed controller using SoMove software.
- Study the no-load behaviour of a three-phase asynchronous motor 1500W.
- Study the with-load behaviour of a three-phase asynchronous motor 1500W.
- Read and plot the electrical and mechanical characteristics of an asynchronous motor.

### TEACHING RESOURCES STUDENT & TEACHER

### Proposed Practical Works

- Creation of the wiring diagram of a speed controller and an asynchronous motor.
- Creation of the configuration of a speed controller using SoMove software.
- Creation of the no-load and with-load tests of the asynchronous motor.
- Calculations & plots of the electrical and mechanical characteristics of the motor bench.