# STUDY OF WIRINGS FOR STARTING ASYNCHRONOUS MOTORS



Set of modules for studying the different types of wiring for starting asynchronous motors.

The modules are cabled using safety leads Ø4mm.

Compatible with asynchronous motors 400/690V 1500W max.





Sockets on the back of the console for connecting the modules



### EDUCATIONAL OBJECTIVES

- Study of wiring diagrams for starting asynchronous motors.
- Study and operation of direct start-up.
- Study and operation of direct start-up with reversal of the direction of rotation.
- Study and operation of star/delta start-up.
- Configuration of a speed controller with software.
- Study and operation of start-up with speed controller.
  Using a digital wattmeter, ammeter and voltmeter.

TEACHING RESOURCES STUDENT & TEACHER

#### **Proposed Practical Works**

- Creation of the wiring diagrams of different types of motor start-up.
- Creation of the different wirings of motor start-ups such as direct, direct with reversal of the direction of rotation, star/delta, with speed controller.
- Configuration of the speed controller using the SOMOVE software from Schneider
- Reading of the currents and voltages at the terminals of the asynchronous motor.
- Calculation of the absorbed power.

#### Comprises

- 1 Module Distribution of three-phase voltage + Neutral 400V-50Hz
- 1 Module 2 two-pole cut-out devices
- 1 Module Four-pole thermal-magnetic circuit-breaker 4A D-curve
- 1 Module Residual current four-pole switch 30mA
- 1 Module Three-pole thermal magnetic circuit-breaker, motor support
- 1 Module Four-pole isolating switch
- 1 Module Transformer 230V/24VAC-50Hz 120VA
- 1 Module Four pushbuttons
- 1 Module 10 indicator lights 24VAC-50Hz
- 1 Module Reversing contactor 24VAC-50Hz with 2NO+2NC
- 1 Module Contactor 24VAC-50Hz with 2NO+2NC
- 1 Module Contactor 24VAC-50Hz with 2NO+2NC
- 1 Module Timed contactor 24VAC-50Hz
- 1 Module Thermal relay
- 2 Modules Analogue voltmeter (400V) and ammeter (10A) displays.
- 2 Modules Digital wattmeter displays.
- 1 Module Speed controller 1.5kW power supply and 3-phase 400V output.
- 1 set of safety leads for carrying out the different practical works.
- 1 frame with wheels (H x W x D): 1610 x 940 x 500mm equipped with rack for cords (30 fingers)
- 1 single-phase power console:
- 1 thermal magnetic circuit breaker (16A)
- 1 Emergency stop push button with key
- 1 Push button + LED indicator
- 1 230V single-phase output on 4mm safety terminals
- 2 230Vac sockets (2P + E) + 12 230Vac sockets (2P + E), at the back

#### **FAN OPTION**

QUICK-C can be completed by a fan.

- 300W 400/690V three-phase fan
- Rated speed 1500 rpm
- Power supply through 4mm dual chamber safety terminals

#### ref. KT-1M

Protection grid removed for photo purposes only

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## **C€** PRODUCTS

## 2 YEARS GUARANTEE