

# STUDY OF SIMPLE STARTING OF ASYNCHRONOUS MOTORS



This model is composed of control devices and actuators allowing the study and the realization of the main starting diagrams of asynchronous motors:

- star/delta starting

Component identification information and other technical characteristics are screen-printed on the faces.

Wiring in flying leads on 4mm terminals (cords supplied). System protected by differential circuit breaker and emergency stop. The model must be connected to a 400/690V three-phase asynchronous motor (optional) to operate and be able to carry out all the practical work.

ref. MAQ-DEM

## **EDUCATIONAL OBJECTIVES**

- Understand the different starting modes of an asynchronous motor
- Know the role and identify the different elements of electrical protection

### **Possible Practical work**

- Study of the direct start operation in star/triangle coupling
- Identification and configuration of different components
- Realization of the electrical diagram in accordance with the starting mode
- Wiring of the various components.
- Study of the positioning of the thermal relay on a star/delta start
- Recording of motor characteristics, U and I measurement

# **COMPOSITION**

- 1 four-pole circuit breaker with differential unit and undervoltage coil
- 1 general emergency stop
- 1 general on/off
- 1 four-pole disconnector
- 1 four-pole fuse holder
- 1 thermal relay with its support sized for use with a 300W motor
- 3 power contactors 25A 24VAC coil
- 1 block of delayed auxiliary contacts work 1 to 30s
- 1 single-phase 230V/24V-5A transformer for the control circuit
- 2 bipolar fuse holders
- 3 24Vac indicator lights
- 2 NO / NC push buttons
- 1 "pupil" emergency stop
- 1 light column with 2 indicator lights

### **MOTOR-FAN OPTION**

- Three-phase fan motor 400/690V of 300W.
- Rated speed 1500rpm
- Power supply by 4mm double-well safety terminals

## ref. KT-1M

Protective grid disassembled for the photo needs

