



# WORK BENCHES FOR ELECTRIC INSTALLATIONS



## COMPLETE KIT FOR INDUSTRIAL ELECTRIC INSTALLATION (version 2)

Kit of components and teaching manual 25 experiments including brief theoretical mentions and practical scheme of the main circuits in use in the industrial electric installations. Each experiment has a well defined target and shows the electric scheme and the necessary material to perform the plant.

The kit is composed of: 1 transformer mains/2x12V, 1 emergency pushbuttons with NO+NC contact, 3 lamp holders, red, yellow and green with 24V lamp, 3 pushbuttons, red, yellow and green with NO+NC contact, 2 multifunction on-off delay time relay, 5 contactors with 2 NO+NC contacts, 1 thermal relay complete with support, 1 fuse holder complete with fuses, 1 couple of lamp holders squares, 3 pieces of DIN section, 1 set of screws to fix the components, 1 container.

*To perform motor tests it is necessary to have a slip ring three phase asynchronous motor with the same characteristics of our DL 2102A motor in the laboratory and a three phase two speed asynchronous motor Dahlander type, with the same characteristics of our DL 2102D motor in the laboratory.*

With this kit it is possible to perform the following experiments:

- Operator interface
- Contactors
- OR logic operator
- AND logic operator
- NOT logic operator
- Self-holding contactor
- Interlocking among contactors
- Sequential control contactors
- OR exclusive operator
- Thermal relay
- Manual star/delta starting
- Manual reversing circuit
- On delay time relay
- Off delay time relay
- Sequential control
- Solid state relay
- Pulse generator
- Automatic star/delta starting
- Manual starting with rotor resistance
- Automatic starting with rotor resistance
- Star/delta starting with reversing circuit
- Plugging braking
- Pole changing circuit, Dahlander connection
- Pole changing reversing circuit Dahlander connection
- Reversing circuit time relay

### Suggested accessories:

**DL 1100A, DL 1100D or DL 1100E, DL 1100SD, DL 2102A, DL 2102D**



**DL 2102C2**