

BENCH FOR TESTING ELECTRIC MEASUREMENTS AND MACHINES

Mod. 2390/EV

INTRODUCTION

This equipment is designed for the operation and control of various types of electric machines and for the distribution and control of the necessary supply voltages for the testing of electric measurements.

This bench is divided into two main sections:

- a desk with universal power supply
- a distribution board

The desk outputs the necessary supply voltages for all the tests of the programme; whereas the distribution board enables a quick connection of measurement instruments required by the tests.

This equipment is also provided with safety devices against malfunctions and accidental electric contacts.



TRAINING PROGRAM:

- Measurements of DC and AC voltage or current
- Measurements of resistance
- Measurements of DC and single-phase power
- Measurements of frequency, capacitance and inductance
- Measurements of active and reactive three-phase power
- Measurements of power factor
- Measurements on DC machines
- Measurements on synchronous machines
- Measurements on asynchronous machines
- Measurements on transformers

TECHNICAL SPECIFICATIONS:

This bench is made of press-formed sheet steel and sections, chemically treated and painted with several coats of epoxy varnish. The working top is of chipboard coated with bonded laminate. Two drawers with flush-mounted handles and key locks are fixed under the working top. The desks available on the fore part of the bench can be opened from the rear side for inspection and service. The described electric components are included in the desks. The control, protection and testing devices are mounted on the silk-screen-printed fore plate of aluminium alloy.

ELECTRICAL CHARACTERISTICS:

- **Main control device of electro-magnetic type**, with key switch, high-sensitivity magneto-thermal differential circuit breaker and stop/emergency pushbutton
- **Service line** with two single-phase sockets of 230 V and three-phase output 400 / N / PE with safety terminals, protected by four-pole magneto-thermal differential circuit breaker of 10 A
- **Regulated power supply unit of 12 Vdc – 15 A**, with electronic output protection against short-circuits and overloads, automatic reset, safety terminals
- **Three-phase / Neutral line of 230 V – 10 A**, protected by fuses, electro-magnetic control device and light signalling, safety terminals
- **Three-phase / Neutral line of 400 V – 6 A**, protected by fuses, electro-magnetic control device and light signalling, safety terminals
- **DC line of 0-220 V – 5 A**, with magneto-thermal protection and digital voltmeter for the reading of output voltage, safety terminals
- **Fixed line of 220 Vdc – 15 A**, protected by fuses, electro-magnetic control device and light signalling, safety terminals
- **Variable three-phase line of 0-430 Vac / 0-500 Vdc – 5 A**, protected by fuses, electro-magnetic control device and separate digital instruments for measuring AC and DC output voltages, safety terminals

DISTRIBUTION BOARD:

- **Three-phase interconnection line** (not electrified)
- **DC interconnection line** (not electrified)
These lines can connect various benches via safety terminals to carry out special tests
- **Three-phase line** (not electrified) that may be separate or connected with the variable three-phase line of power supply desk via a circuit breaker: it can be used through a set of safety terminals
- **DC line** (not electrified) that may be separate or connected with the variable three-phase line of power supply desk via a circuit breaker: it can be used through a set of safety terminals
- **Two three-pole circuit breakers** for enabling excitation circuits, load circuits, etc... of the machines under test, connected via safety terminals

Dimensions: 2000 x 1000 x 880 + 600 mm (console)

Net weight: 200 kg

POWER SUPPLY:

3 x 400 V / N / PE 50-60 Hz
(3 x 220V/ N / PE other voltages on demand).
Max. absorption: 6 kVA