

The aim of the module **IE-10** trainer unit is to make easier the teacher's and the student's experimental activity employing already assembled circuits, ready to operate and organised so as to assure the best safety and flexibility of use. The main advantages of the **IE-10** unit are the following:

- ease of transport and storage
- ease of use (immediate accessibility)
- minimal wiring required to save lab time
- improved practical experimentation due to an accurate design
- easy maintenance
- absolute safety of use

Particularly, the IE-10 unit has peculiar features that make it unique for reliability and functionality

- fully stand-alone unit (requires only a standard power supply)
- compact size module
- easy connection to the measuring instruments or to other available blocks
- error-proof circuits operating at low voltage power supply
- remarkably strong module made of unbreakable and insulated materials

## FEATURES

The main features of the unit are the following:

- Regulations and status visualisation on the panel
- Employ of easy-to-be found components to simplify the maintenance over the years
- Easy access for internal inspection and maintenance operations
- Components mounted on printed circuit board (shielded)
- Standard socket terminals for measurements and connections (Ø 2 mm)
- Silk-screened synoptic panel
- Unbreakable plastic "CE" case
- Magnetic fastening device
- Safety voltage operation (12Vac)
- Complete of manual (theory and practice)
- Dimension: mm 255 x 160 x 40 h
- Weight: 0,5 Kg approx.

## **TOPIC COVERAGE**

- Main elements on single-phase AC/DC electric quantities

- Measuring the junction diode
- Filtering circuit
- Firing circuit
- Single-phase, half-wave rectification with ohmic load
- Single-phase, half-wave rectification with R-L-C load (levelling)
- Single-phase, full-wave rectification with ohmic load
- Single-phase, full-wave rectification with R-L-C load (levelling)
- Testing an SCR with a Multimeter
- Formal examination of SCR firing pulses
- Controlled, single-phase half-wave rectification with R-L-C load
- Semicontrolled single-phase bridge rectification with R-L-C load
- Fully controlled single-phase bridge rectification with R-L-C load

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MAX BAVE I  $\bigcirc$   $F_1$   $2 \bigcirc$   $F_2$   $F_1$   $F_1$   $F_1$   $F_1$   $F_2$   $F_2$   $F_2$   $F_1$   $F_1$   $F_1$   $F_2$   $F_1$   $F_1$   $F_2$   $F_2$   $F_1$   $F_2$   $F_1$   $F_2$   $F_2$   $F_2$   $F_1$   $F_2$   $F_2$ 

italtec SINGLE-PHASE CONTROLLED RECTIFIER CIRCUITS IE-10

**ITALTEC S.R.L. SISTEMI TECNICI DIDATTICI** 20090 FIZZONASCO MI (Italy) – Via privata Liguria, 3 Tel. +39 02-90.721.606 Fax. +39-02-90.720.227 e-mail: italtec@italtec.it http://www.italtec.it