



SOLAR ENERGY MODULAR TRAINER



DL SOLAR-B

Modular trainer for the theoretical-practical study of the electrical installations with photovoltaic solar energy.



Complete with connecting cables, experiment manual and **software for data acquisition and processing.**

TRAINING OBJECTIVES

- Measurement of solar irradiation
- Measurement of the voltage of the photovoltaic panel at no-load
- Graph of current – voltage of the photovoltaic panel
- Measurement of the voltage of the panel in overload
- Regulation and charge of the battery
- Direct current solar plant
- Alternate current solar plant
- Dimensioning criteria

Average training hours: 8h.

Approx. packing dimensions: 0.62 x 1.21 x 0.82 m.

Net weight: 51 kg.

OPTION: DL SIMSUN

Composed of 4 halogen lamps, 300 W each, for lighting the solar tracking system. Possibility to adjust the light intensity.

TECHNICAL SPECIFICATIONS

- A photovoltaic inclinable module, 90W, 12V, complete with a cell for measuring the solar irradiation and with a temperature sensor.
- A supporting frame for the modules.
- A battery.
- A battery control module, 12V, 32A.
- A load module. It includes two 12V lamps, dichroic 20W and LED 3W, with independent switches.
- A load module. It includes two mains voltage lamps, dichroic 35W and LED 3W, with independent switches.
- An electronic regulation module, with LCD screen.
- A rheostat.
- A module for the measurement of: solar irradiation (W/m^2), solar panel temperature ($^{\circ}C$), current up to 30V, $\pm 15A$ (two dc ammeters), voltage up to 40V and power up to 300W.
- A dc to ac converter module, with sinusoidal output at mains voltage. Average power: 300 W.