



## KIT FOR THE STUDY OF PHOTOVOLTAIC SOLAR ENERGY



**DL 3155BRS-PSE**

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

The kit is a complete configuration for photovoltaic energy study in an off grid system. It covers the fundamentals of solar cell and its operation in a storage system mode.

### LEARNING EXPERIENCES

- Electrical characteristics of a single solar cell
- Electrical characteristics of two solar cells connected in series
- Electrical characteristics of two solar cells connected in parallel
- Electrical characteristics of a solar panel
- Monitoring of the charge level and analysis of the discharging process in a gel battery
- Charging a battery by using a current regulator
- Charging a battery by using a charge regulator
- Analysis and comparison of two light sources
- Smart energy management system
- Study of energetic efficiency by means of a breadboard

### CIRCUIT BLOCKS

- Base board
- Solar cell mini board x2
- Battery charge regulator mini board
- Double voltmeter mini board
- Voltage regulators mini board
- Battery level monitor mini board
- Light Tester mini board Kit
- Current driver and relay mini board
- Bread Board mini board
- Battery module (12V)
- Solar panel module 5W
- Fan module (load)

### ACCESSORY INCLUDED:

#### DL 2555ALG - DC POWER SUPPLY



- $\pm 5$  Vdc, 1 A
- $\pm 15$  Vdc, 1 A

Complete with manual (theoretical and practical) and cable kit.

Dimensions of the board: 297x260mm