



ELECTRIC POWER AND ENERGY



DL 3155M03

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

With this board the students can study the concept of power and electric energy, the effect joule, the importance of the energy balance and the efficiency.

THEORETICAL TOPICS

- The power and the electric energy
- Their measurement
- Thermal effect of the current: Joule's law
- Practical applications of the Joule's law
- Energy balance and efficiency
- Energy transfer from a supply unit to a load
- Adaptation of the load
- Fault simulation

CIRCUIT BLOCKS

- Electrical power in parallel connection
- Electrical power in series connection
- Energy: Joule's law
- Bimetallic sheet switch: thermostat
- Energy balance and efficiency

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

CAI SOFTWARE:

Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.

Ordering code: please add SW after the code of the board (i.e. DL 3155M03SW)

Required:

POWER SUPPLY NOT INCLUDED

Base frame with power supply (completed with connecting cables):

- **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
- **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):

- **DL 2555ALF** - DC power supply $\pm 5 \pm 15 0 \pm 15$ Vdc, 1A
- **TL 3155AL2** - Connecting cables

Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.

