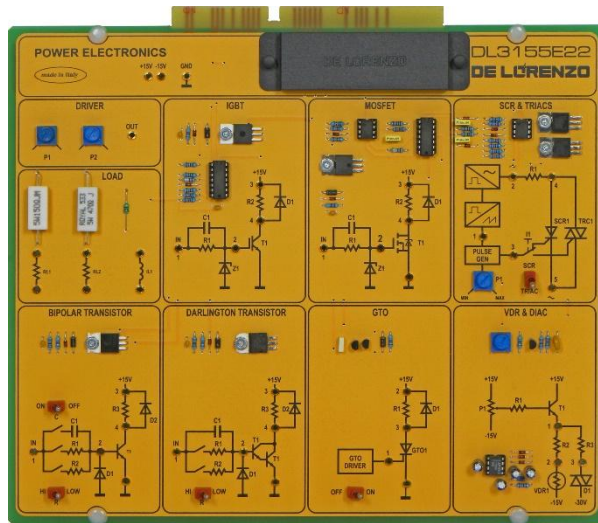




## POWER ELECTRONICS



**DL 3155E22**

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 card, the students can study the characteristics and operations of the power electronics components, as the transistor in the bipolar and darlington configurations, MOSFET and IGBT, SCR and TRIAC, The thyristor GTO, VDR and DIAC.

### THEORETICAL TOPICS

- Structure of the bipolar transistor
- The Darlington transistor
- The MOSFET
- The IGBT
- The SCR and the TRIAC
- The GTO thyristor
- Operation with resistive load
- Operation with inductive load
- The VDR and the DIAC

### CIRCUIT BLOCKS

- Bipolar transistor
- IGBT
- MOSFET
- SCR & TRIACS
- Darlington transistor
- GTO
- VDR & DIAC
- Driver

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 3155E22SW)

### 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  $\pm 5 \pm 15 \text{ } 0 \pm 15 \text{ Vdc}$ , 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.

