



AC CIRCUITS



DL 3155M07

THEORETICAL TOPICS

- Sinusoidal alternating currents and voltages
- Vector and symbolic representation of the sinusoidal electric quantities
- Product of a sinusoidal quantity by a constant
- Sum and difference of sinusoidal quantities
- Product of two sinusoidal quantities
- Product of a sinusoidal quantity by a complex number
- Elementary bipoles: R, L, C
- Series and parallel of the bipoles: R-L, R-C, R-L-C
- Oscillating circuits: frequency response of the ac circuits
- Low-pass filter, high-pass filter, pass-band filter
- Fault simulation

CIRCUIT BLOCKS

- Alternating quantities
- Resistive circuit
- Capacitive circuit
- R-C circuit (series and parallel)

The design and construction of electronic

circuits to solve practical problems is an essential technique in the fields of electronic

With this board the students can study the operating principle of the alternating current circuits with the use of inductors, resistors and capacitors. They also begin to understand the

engineering and computer engineering.

function of filters and resonant circuits.

- Inductive circuit
- R-L circuit (series and parallel)
- Series resonant circuit
- Parallel resonant circuit
- Low-pass filter (R-C)
- High-pass filter (C-R)
- Low-pass filter (L-R)
- High-pass filter (R-L)
- Pass-band filter

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 3155M07SW)

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 2555ALG DC power supply ±5 ±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.

