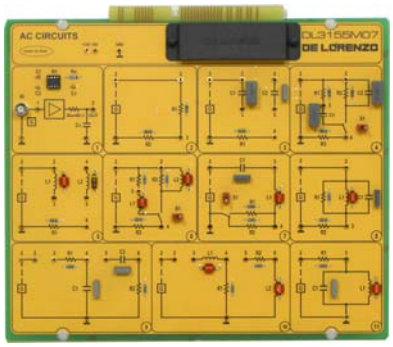
TIME ELECTRONIC BOARDS

AC CIRCUITS



DL 3155M07

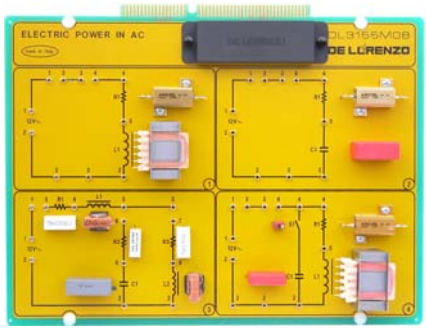
Theoretical topics:

- 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)
- 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

ELECTRIC POWER IN ALTERNATING CURRENT



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Theoretical topics:

- Active power
- Reactive power
- Apparent power
- Boucherot's theorem
- Power and energy measurements
- Phasing of a single-phase system
- Calculation of the phasing capacity
- Fault simulation

Circuit blocks:

- Active, reactive and apparent power (ohmic, inductive, ohmic-inductive load)
- Active, reactive and apparent power (ohmic, capacitive, ohmic-capacitive load)
- Boucherot's theorem
- Phasing of an ohmic-inductive load