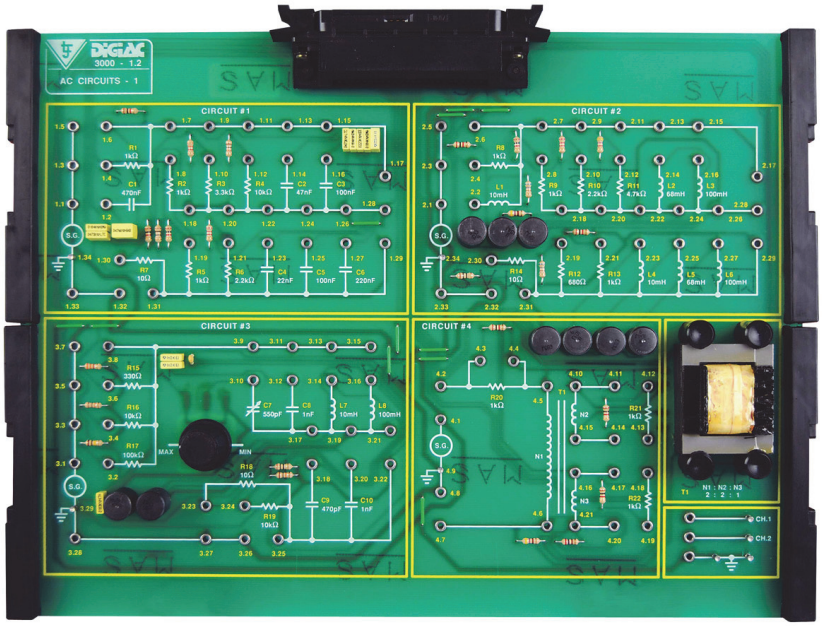
Product Information Sheet

AC Circuits Study Module



This electronics study module is designed to connect to the Advanced Electronics Experiment Platform (300-01) as part of a modular electronics programme.

The study module is designed to introduce students to AC circuits and the components and devices that operate from an AC power source. This includes practically investigating AC waveforms, Capacitive Inductance, RC circuits, RL Circuits, RLC Circuits, and transformers

Using the Advanced Electronics Experiment Platform, a range of faults to be selected and inserted into the study module circuits to develop electronic diagnostic and faultfinding techniques.

The study module is supplied with PDF manuals that provide theory materials, practical tasks, faultfinding activities, and technical information.

Topics Include the Following:

- Sinusoidal Alternating Waveforms
- Alternating Supply with Pure Resistance Loading
- Capacitance and Inductance fed from Square and Sinusoidal Inputs
- AC Supply with Capacitive Loading
- AC Supply with Pure Inductive Load
- Resistance-Capacitance Circuits on AC Supplies
- Resistance-Inductance Circuits on AC Supplies
- RLC Circuits and AC Supplies
- RL and RC Filter Circuits
- The Transformer
- Transformer Isolation

Typical Activities Include:

- Measure the frequency and period of sinusoidal waveforms
- Measure the voltages across series resistors connected to an AC supply
- Determine phase shift for a capacitor
- Measure and calculate inductive reactance
- Determine impedance and phase angle for a series RC circuit
- Determine by measurement or calculation currents in parallel RL circuits
- Recognize the factors that determine the resonant frequency of a series LC circuit
- Recognize the factors that determine the corner frequency (cut off frequency) of an RC filter
- Diagnose faults in a transformer

Items Included:

- Circuit Card
- Storage Case
- Curriculum Manual in PDF Format

Other Items Required:

- 300-01 Advanced Electronics Experiment Platform
- Digital Multimeter
- Dual Trace Oscilloscope
- Function Generator

General Information:

Dimensions: 81 x 323 x 256 mm (W, H, D)
Shipping Volume: Approx 0.008 m^3
Shipping Weight: Approx 2 kg

Order Code: 301-12

P8518-C

For more information visit www.ljcreate.com