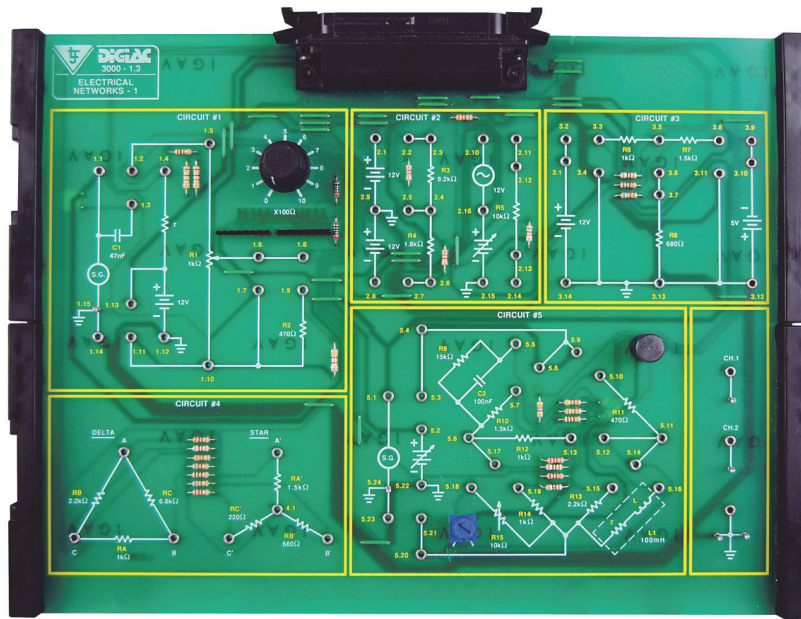


# Product Information Sheet

## Electrical Networks 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 electrical networks and the associated theorems such as Thevenin's and Norton's.

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:

- Supply Source Internal Resistance
- Maximum Power Transfer from Source to Load
- Dual Voltage DC and Combined AC/DC Supplies
- Thevenin's and Norton's Circuit Theorems
- Superposition and Star Delta Transformation
- DC and AC Bridges

### Typical Activities Include:

- Use data obtained by measurement to determine internal resistance of an AC source
- Make measurements on a DC source to determine maximum power conditions
- Make measurements on an AC source to determine maximum power conditions
- Measure on-load voltages for a dual voltage supply
- Measure voltages obtained from a combined AC and DC supply
- Apply Thevenin's theorem to a practical circuit
- Apply Norton's theorem to a practical circuit
- Use practical measurements to verify the superposition theorem
- Diagnose faults in resistive networks

- Make measurements on a DC Wheatstone bridge
- Make measurements on an AC Wheatstone bridge
- Diagnose faults in DC Wheatstone bridge circuits
- Faultfinding power supply circuits

### 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<sup>3</sup>  
Shipping Weight: Approx 2 kg

**Order Code: 301-13**

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