

Study of a single-phase transformer 230V-140VA



QUICK-G is a set of modules (H-250mm) for studying a compensated single-phase transformer 230V with three secondary windings.

ref. QUICK-G

EDUCATIONAL OBJECTIVES

- Study a single-phase transformer with no load, in short-circuit and loaded.
- Measurement of the different electrical values at the primary and secondary windings.
- Calculation of the powers, efficiency, transformation ratio, and losses of the transformer.

TEACHING RESOURCES STUDENT & TEACHER

Proposed Practical Works

- Creation of the wiring diagram with measuring devices.
- Study of the use of the compensation winding at the primary.
- Readings of the electrical values of the transformer with no-load.
- Readings of the electrical values of the transformer with load.
- Calculations of the electrical characteristics, power and the transformation ratio.
- Plots of the curves of electrical power and efficiency.

Comprises

- 1 Variable autotransformer module 0-250V AC - 5A.
- 1 Single-phase transformer module 140VA.
Primary winding 230V, 1 secondary winding 15V/3.6A and 2 fuse-protected separate secondary windings 12V/3.6A.
- 3 Voltage digital display modules.
- 3 Current digital display modules.
- 3 Power digital display modules.
- 1 Variable rheostats module 0-22 ohms.
- 1 Variable rheostats module 0-3.3 ohms.
- 1 set of safety leads for carrying out the different practical works.
Mains power supply 230V - 50/60Hz. 3-metre lead with plug 2P+E.