



DESCRIPTION

The TR-101 consists of 4 x transformers of open-type construction, mounted at the base of a metal-framed enclosure, which has a transparent Ultra-High Impact (UHI) acrylic front fascia panel. The UHI fascia is a precision-drilled matrix, which accommodates a range of Amron Plug-In Component Modules. These modules consist of a polyamide (nylon) base & lid, on which various components are mounted, and they connect to the UHI matrix via 4 x spring-loaded mounting pins.

All transformer terminations are brought out to the front fascia panel via 4mm banana-type sockets, or via polyamide binding post terminals.

A silk-screened didactic panel, illustrating the winding mimic diagrams of each transformer, is attached to the bottom portion of the UHI mounting matrix.

A variable 0-230V AC/DC power supply with metering and electrical protection is attached to the side of the transformer enclosure.

The power supply/transformer enclosure assembly mounts on top of a sturdy, lockable wooden cabinet, which allows for storage of all ancillary equipment, and is fitted with adjustable feet.

The working surface of the cabinet is post-formed, hard-wearing formica.

MODULES

The following plug-in component modules are supplied:

- Ø 3 x voltmeters
- Ø 3 x ammeters
- Ø Resistive load unit
- Ø Capacitive load unit
- Ø Digital multimeter module

A set of stackable banana plug connecting leads is supplied.

A comprehensive experiment/user manual based on a format (including objectives, diagrams, equipment required, related theory & exercise procedures) is also supplied.

Recommended optional accessories include an Insulation Tester (Megger) & Inductance Meter

TRANSFORMER DETAILS

All transformers are rated at 300VA.

1. SINGLE PHASE

- Ø Primary: 230V
- Ø Secondary: 2 x 115V

2. THREE PHASE (3 x single phase-ganged)

- Ø Primary: 230V
- Ø Secondary: 2 x 115V
- Ø Star & delta connections are possible in both primary & secondary

3. AUTO-TRANSFORMER

- Ø Primary: 230V
- Ø Secondary: 0/115/230V

4. TOROIDAL

- Ø Primary: 230V
- Ø Secondary: 2 x 115V



1PH. & 3PH. TRANSFORMER TRAINER

TR-101

EXPERIMENTAL CAPABILITY

- Ø Static tests & derived data, including terminal identification, winding resistance, open & short-circuit tests
- Ø Turns ratio
- Ø Polarity of winding
- Ø Input & output waveforms
- Ø Impedance triangles & phasor diagrams
- Ø Resistive & capacitive loading, with temperature observation
- Ø Correct phasing of secondaries (star/star; star/delta; delta/star; delta/delta)
- Ø Transformer efficiency

This trainer may be upgraded to perform extra experiments by using ADDITIONAL plug-in component modules, which are available on request.

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AMRON reserves the right to amend these specification in the interest of product improvement