

Sumpner's Test of Two Single Phase Transformer Training System



** Shown image is just for illustration original may differ

Introduction

Sumpner's Test of Two Single Phase Transformers is a very exclusive and important product designed for students to explain very first block of Electrical Engineering. With this trainer, students can learn about how losses occurs in the transformers, equivalent parameters, efficiency and heat run test which is very helpful to study the functioning of the single phase transformers. They can also get aware of the phenomenon of polarity in a very simple manner.

The product is represented in such an easy way that each test can be studied differently in proper sequence. Not much brainstorming is required to make the circuit's connection. The varied scope of learning makes the subject completely understandable and interesting.

Product Features

- Control panel with digital microcontroller based measuring devices with high accuracy and resolution
- Transformer winding consist of copper for long term service
- Inbuilt Single phase auto-transformer to get multiple readings
- Equipped with temperature measuring device to analysis transformer's heat
- Front board consists of MS Material with power coating to avoid any rust.
- Separate auxiliary supply facility to enable digital measuring instruments
- Control Panel with round grills fitted on both sides for cooling purpose.
- Provided with suitable protection such as fuses, MCB, etc wherever requires
- Specially designed BS10 Terminals and patch cords for electrical safety
- Lamp indicator for single phase mains supply
- Earthing screw provided at the back side of the control set-up
- Diagrammatic representation for the ease of connections.
- Product provides with protection fuses, colored patch cords, single phase cords, learning manual having theory operating procedure with connecting diagram, FAQ, Glossary, etc

Technical Specifications

Mains Supply	: Single Phase, 230VAC ±10%, 50Hz
Single Phase Transformer (2Nos)	
Rating	: 1kVA
Primary Voltage	: 0-125V – 0V – 125V ±10%, 50Hz
Secondary Voltage	: 0-125V – 0V – 125V ±10%, 50Hz
Rated Current	: 4A
Winding	: Copper
Efficiency	: Above 85% (considering experimental losses)
Туре	: E-I Core
Digital Meters Used	
Technology Used	: Microcontroller based
AC Voltmeter	: 500V (2nos.)
AC Ammeter	: 10A (2nos.)
Wattmeter	: 1.5kW (2Nos.)

Single Phase Autotransformer

Primary Voltage	: 230V AC ±10%, 50Hz
Secondary Voltage	: 0 - 270V AC ±10%
Rating	: 10A
Туре	: Open Type
Protection Devices	
MCB (DP)	: 10A
Glass Fuse	: 10A
Grounding Nut	: Available at the rear side of the panel

Experiments Can be performed:

- Study of Additive Polarity Test in a Single Phase Transformer
- Study of Subtractive Polarity Test in a Single Phase Transformer
- Study of Open Circuit Test and Short Circuit Test taking two single phase transformer and consequently calculate efficiency and voltage regulation of transformer with different loading configurations

Supporting Accessories supplied with Product

- Patch Cords of different color scheme
- Single/Three Phase Mains Cord
- Extra Glass Fuses
- Operating Manual (softcopy)

**Please feel free to share your queries or requirements by filling your details in ask query section or request a Quote section on the website, we will be happy to cater your requirement.