



The Three Phase Lab with Three Phase Low Voltage Power Supply is an elite training system for the electrical laboratories. There is a three phase low voltage supply that provides 18 V of low voltage which is highly safe. This system is valuable in understanding the basic concepts of Three phase circuits like star-delta connections, their phase and line voltages, currents etc. Being different from the present scenario, this system is designed in such a way that a student can himself make connections of three phase circuits because all the experiments are performed on low voltage. The product is designed with keeping in mind that R, L, C combination can be connected in series as well as in parallel in Three Phase circuits.

Experiments that can be performed

01. Study of Three phase low voltage power supply
02. Study of Three phase star connection
03. Study of Three phase delta connection
04. Study of Three phase circuits with balanced load
05. Study of Three phase circuits with unbalanced load
06. Three phase power measurement

Technical Specifications

Three Phase Low Voltage Power Supply (01)

Input : Three Phase Mains (230 V Phase voltage, 415 Line voltage 50 Hz) \pm 10%
 Outputs : 18V Phase voltage, 28V line voltage 50 Hz \pm 10%
 MCB (Power Switch) : Four Phase

Three Phase: (02)

Input : 18 V each phase, 50 Hz \pm 10%

Loads (03)

Resistors : 1K, 10K, 47K & 100K
 Capacitors : 0.01 μ f, 0.1 μ f, 0.22 μ f & 0.33 μ f
 Inductors : 1.2 μ H, 10 mH, 40 mH & 100mH

Three Phase Supply Configuration (04)

The Three Phase Supply Configuration module is useful in getting familiar with the Three phase supply configurations. It helps in understanding the working of three phase transformers and their different configurations in star and delta connections.

Experiment: To understand Three phase power supply configurations

Technical Specifications

Input : 18 V each phase, 50 Hz \pm 10%
 Output : 9 V

Three Phase Rectifiers (05)

The Three Phase Rectifiers module is again a versatile module, helpful in understanding the concept of three phase rectifier operation. This module contains silicon diodes for the connections of Half wave and Full wave bridge rectifiers.

Experiment : Study of three phase rectifiers

Technical Specifications

Input : 18 V each phase, 50 Hz \pm 10%
 Output : 18 V Rectified three phase



Three Phase Waveforms

Note: Specifications are subject to change.

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