Product Name :	**Product Code :**
Refrigeration Trainer	NLAB-ELECTRONICSAB210017

Description :

Refrigeration Trainer

Technical Specification :

Refrigeration Trainer allows students & industry professionals to learn the fundamentals of Simple Vapour Compression Refrigeration System. The design of this Refrigeration Training System is to allow the user to study this Technology in great detail. The training system introduces various sub-systems with real components.

The training system brings a comprehensive view of the entire Refrigeration system. Actual component study and their interconnection, functions, operation, diagnosis, etc. are a part of the scope of training.

The construction of the trainer is on a main platform unit mounted on a trolley. This helps the students to place the trainer at their desired position. However, the height of the trainer is as such, the students can comfortably observe the reading while performing the experiments. The unit is opened, in order to provide an open exposure to the students for understanding the importance of each component in the process cycle.

In this trainer, students can learn how to calculate the Coefficient of Performance (C.O.P.) of a compressor, based on which he / she can know the capacity of a compressor. Apart from this, students are also able to know

the power consumed by the compressor.

The front panel also includes Toggle Switches, LCD, Pressure Dials, Voltmeter and Ammeter.

Refrigerant (R134) used is non-poisonous, harmless to body and eco-friendly

Compact and Self-contained

Mounted on trolley for mobility

Digital LCD for Temperature

Multi point temperature measurement

Process Diagram on front panel

Easy component identification

Technical Specifications

Condenser : 10 11 2 Turns

Motor : 230 V AC 50 Hz, 0.40 Amps, 9 watt and 1360 RPM

Evaporator & Tank : Capacity : 20 litres

Compressor : 1/3 HP, 925 BTU, 150 watt, R134a (Refrigerant), 220 V AC 50 Hz,

Drier : 1/4- Threaded (male)

Pressure Gauge (P1, High) : 0 - 300 PSIG & 0 - 21 kg / cm2

Pressure Gauge (P2, Low) : -30 to 150 PSIG

Ammeter : 0 to 5 Amps AC

Voltmeter : 0 to 300 V AC

Pump : Submersible, 220 VAC, 800 L/H

Heater : 220 VAC, 50 Hz, 500 watt

Rotameter : 0 to 30 LPM, Acrylic body

LCD : 16´ 2

Temperature Range : 0° -100°C

Scope of Learning

To study the Simple Vapour Compression Refrigeration System (SVCR)

To calculate the Co-efficient of Performance (C.O.P)

To calculate the power consumption of the compressor

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