LAB ENGINEERING

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Product Name : Computerized ICE Plant Trainer	**Product Code :** RAC0009

Description :

Computerized ICE Plant Trainer

Technical Specification :

The unit enables the students to study the Basic Principals of ice plant cycle within a short period.
The test rig is designed for the study of thermodynamics of vapour Compression refrigeration cycle by way of demonstration and experimentation.
It has a facility to measure various parameters for experimentation.
Ice cans are kept in liquid tank, which is cooled by the refrigerant evaporator.
The present set-up has a facility to interface the system with computer, which enables to log the experimental data-using computer.
As conventional ice plants take 12-24 hours to complete the cycle, this ice plant is specially designed to demonstrate process of ice formation to be complete within period of 4 hours and hence it is most suitable for laboratory use.
The educational software and data-logging package has been developed for unit.
FEATURES:
To study the working of ice plant.
To study the refrigerator circuit.
To calculate co-efficient of performance
SPECIFICATION:
Compressor: Hermitically sealed compressor, Kirloskar make.
Evaporator: Made of Stainless Steel, Insulated with ceramic wool/puff.
Expansion Device: Capillary Tube Compatible capacity.
Energy Measurement: By Energy meter

Tank: The inner tank shall be fabricated out of stainless steel
Condenser: Air cooled compatible to compressor
Condenser Cooling Fan: Compatible capacity with permanent lubricated motor.
Pressure Measurement: Pressure Transmitter- 2 Nos.
Temperature Measurement: Temperature Transmitter- 6 Nos.
Safety Control: overload and over current protectors for compressor and Time delay circuit.
Measuring ranges :
Differential pressure: 0…1000Pa (air)
Flow rate: 12…360L/h (water)
Temperature: 2x 0…50°C, 3x 0…100°C
Rel. humidity: 10…100%
Required for operation :
230V, 50Hz, 1 phase
230V, 60Hz, 1 phase