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Product Name :Chiller Units Training Plant

Product Code: LBNY-0005-14100010



Description:

The is designed so students can study the operation and theory associated with chiller units and to study the use of an intermediate fluid for transporting thermal or refrigerating power from the production / storage site to the air conditioning plant. A Chiller Units Training Plant that is designed to study the operation of a chiller and its components. For example the thermostatic expansion valve and flow switch.

The has been designed and manufactured to incorporate all current safety standards.

The refrigerant used complies with anti-pollution legislation.

Faults can be introduced using the Manual Fault Simulator or the Electronic Fault Simulator to allow the students to troubleshoot the faults and diagnose the actions required to set the plant back into the correct and efficient operating condition

Technical Specification:

Experiment:

Studying the operation of a thermostatic expansion valve

ON-OFF control

Plant start-up and system monitoring using the protection and safety devices incorporated into the pilot plant Studying the operation of a chiller

Analysing system behaviour and reactions with the variation of:

Air flow rate at air to water heat exchanger

Plotting the cycle in a refrigerant pressure-enthalpy diagram

Air flow rate at condenser.

Obtaining data readings and calculation of:

Ideal and actual Energy Efficiency Ratio

Volumetric compression efficiency

Heat balances for the evaporator, condenser and compressor

Refrigerant mass flow

Troubleshooting the system and its components using Fault Simulators

Thermal exchange surfaces

Thermostatic valve superheat (hunting)

Heat balances on water circuit.



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