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Product Name :
Mechanical Heat Pump Apparatus

Product Code :
LBNY-0005-11700034



Description :

The Mechanical Heat Pump consists of a hermetic compressor, an insulated coiled concentric tube water cooled condenser, a liquid receiver, a thermostatically controlled expansion valve and air heated evaporator. Mechanical Heat Pump components are clearly but compactly arranged in a manner similar to that used for many domestic air-water heat pumps and all are visible from the front of the unit. The components of the heat pump and its instrumentation are mounted on a high quality ABS plastic panel. Mechanical Heat Pump is given up to the cooling water and the refrigerant condenses to a liquid before passing to the liquid receiver and then the expansion valve. Slightly superheated Refrigerant vapour enters the compressor from the evaporator and its pressure is increased. This brings about a rise in temperature and the hot vapour enters the water cooled condenser.

Technical Specification :

Experimental Capabilities:

Determination of power input, heat output and coefficient of performance.
Determination of energy balances for condenser and compressor.
Production of heat pump performance curves based on properties, at a variety of evaporating and condensing temperatures.
Estimation of the effects of compressor pressure ratio on volumetric efficiency.
Production of heat pump performance curves over a range of source and delivery temperatures.
Plotting the vapour compression cycle on a p-h diagram and comparing this with the ideal cycle.



Laboratory Instrument India