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Product Name :
Water Water Heat Pump Apparatus

Product Code :
LBNY-0005-11700036



Description :

The 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 Water Water Heat Pump consists of a hermetic compressor, an efficient plate heat exchanger condenser and evaporator, a liquid receiver, a thermostatically controlled expansion valve.

The operating cycle is as follows:

Slightly superheated Refrigerant vapour enters the compressor from the evaporator and Water Water Heat Pump pressure is increased. Heat 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. This brings about a rise in temperature and the hot vapour enters the water cooled plate 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.

Plotting the vapour compression cycle on a p-h diagram and comparing this with the ideal cycle.

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.



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