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**Product Name:** 

Heat Pump With Dual Mode Evaporator Training Bench

Product Code: LBNY-0005-14100018



## **Description:**

The Heat Pump with Dual Mode Evaporator Training Bench comprises a hermetic piston compressor with integrated oil cooler and a water condenser. All instruments are included to take real-time data readings for further analysis.

The refrigerant used complies with anti-pollution legislation.

An Air-to-Water Heat Pump with Dual mode Evaporator Training Bench for studying the refrigeration cycle where the evaporator can be operated with either water or air.

The Heat Pump with Dual Mode Evaporator Training Bench has been designed and manufactured to incorporate all current safety standards.

## **Experiments:**

Studying the operation of a heat pump

Determining the ideal and actual coefficient of performance (C.O.P.)

Comparison of evaporator operation and performance when operated with air or water

Reading and analysing the water temperatures and flow rate in real-time when the equipment is operating Reading and analysing refrigerant pressures, temperatures and flow rate

Plotting the refrigeration cycle on a p-h diagram.

## **Technical Specification:**

Air-cooled finned-tube evaporator with a capacity of 1 kW

Thermostatic expansion valve

Hermetic piston compressor with integrated oil cooler

Coaxial condenser

Water cooled plate heat exchanger evaporator with a capacity of 1 kW

Liquid separator

Sight glasses, dehydrator filter, check valves

4 digital thermocouples with PT100 probes that can be inserted at several test points along the liquid refrigerant circuit

Valve for plant vacuum, refrigerant charging and recovery

Full set of instruments for obtaining data readings including:

**Flowmeters** 

Residual current thermomagnetic circuit-breaker

Start button

High and low pressure gauges

Wattmeter

High and low pressure shut down pressostats

Emergency stop button.



## **Laboratory Instrument India**