THERMODYNAMICS

EXPORT

HEAT PUMP 13310

Heat pump model with compressor assembled on frame and vertical panel.

Helical-designed evaporator and condenser for heat exchange in the vessels provided.

It includes big-sized manometers for measuring refrigerant pressure, both for the condenser (high pressure values) and for the evaporator (low pressure values).

It also includes a pressure safety switch which turns off the compressor in case the condenser pressure exceeds a fixed value (approx. 13 bar). The compressor is again turned on when the pressure adjusted on the scale drops to a value under that of the disconnection pressure and the safety switch button is pushed. There is an ELCB (Earth leakage circuit breaker) available for the electric circuit protection.

TECHNICAL INFORMATION:

- Refrigerant: R134, containing no CFC
- Manometers diameter: 160mm
- Condenser manometer range: from -1 up to 24 bar ; from -60 up to 77 ºC
- Evaporator manometer range: from -1 up to 9 bar ;from -60 up to 39 ºC
- Copper pipe diameter: 6,5mm
- Condenser helix diameter: 70mm
- Evaporator helix diameter: 50mm
- Water vessels volume: 1l (4x)
- Maximum operation pressure: 18 bar
- Power supply: 220-240V/50Hz, or 110V/60Hz on request
- Dimensions: width: 750 mm, high: 550 mm, length: 370 mm
- Weight: 21 Kg

EXPERIMENTS:

- ✓ Working of a refrigerator machine.
- ✓ Determining the efficiency of the heat pump as a function of the temperature differential.
- ✓ Thermodynamic cycle of the heat pump. Measure of pressure as a function of the temperature.

Determining the efficiency of the heat pump as a function of the temperature differential (Not included: Power and temperature meter, ask for quotation).

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