

Heat Pump by compression

DESCRIPTION

- The heat pump by compression unit is delivered complete with instrumentation and includes technical and instruction manuals.
- The equipment is designed and manufactured to industrial standards.
- This unit can be used at different levels and for different fields of study.



Suggested Applications

Study of the thermodynamic cycle of the heat pump.

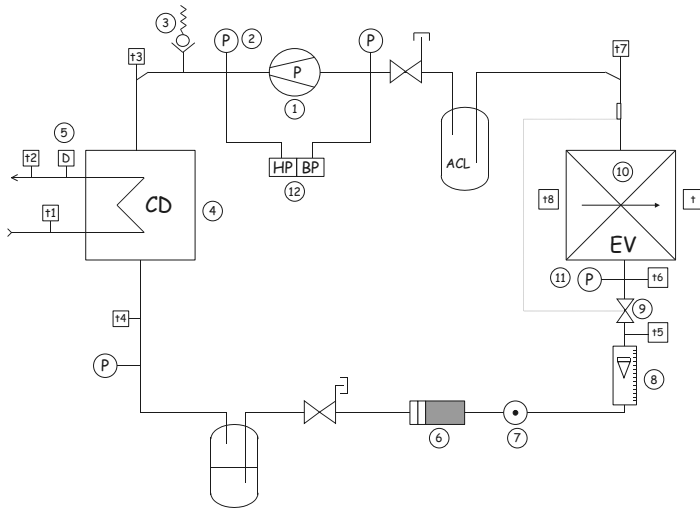
Evaluation of the unit performance, as a heat pump or air conditioner.

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Measurement of refrigeration cycle efficiency, determination of the condenser energetic results of the evaporator and the heating pump unit.

Comparison of the compression cycle of the vapour established after manipulation with the ideal cycle on pressure diagram - enthalpy.

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UTILITIES

Electricity : 230 V single phase

Water : 1.5 L/min (network)

Anemometer for air flow measurement

DIMENSIONS

Length : 580 mm

Width : 400 mm

Height : 660 mm

Weight : 51 kg

1. Motocompressor

- Industrial type
- Electric power : 1/8 CV
- Refrigerating power : 402 W
 - Condensation temperature : +55°C
 - Evaporation temperature : +5°C

2. High pressure manometer

3. High pressure security pressure switch

4. Water condenser / R 134 a

- Glass casing
- Stainless steel coil
- Water supply network and evacuation

5. Water rotameter

6. Dehydrator

7. fluid state indicator

8. Rotameter – R134a

- Magnetic transmission
- Needle display
- Stainless steel construction

9. Thermostatic expansion valve

- Internal equalisation
- Interchangeable calibrated orifice

10. Air evaporator

- Forced convection
- Copper tube and aluminium fins
- Fin pitch : 4.2 mm
- Refrigerating power : 325 W / ΔT 10°C
- Exchange surface : 1.4 m²

11. Low pressure manometer

12. Safety low and high pressure controller

Control board

Voltmeter – ammeter

Temperature indicator and switch for the measurement of the characteristic points