

Rankine cycle and steam compression

DESCRIPTION

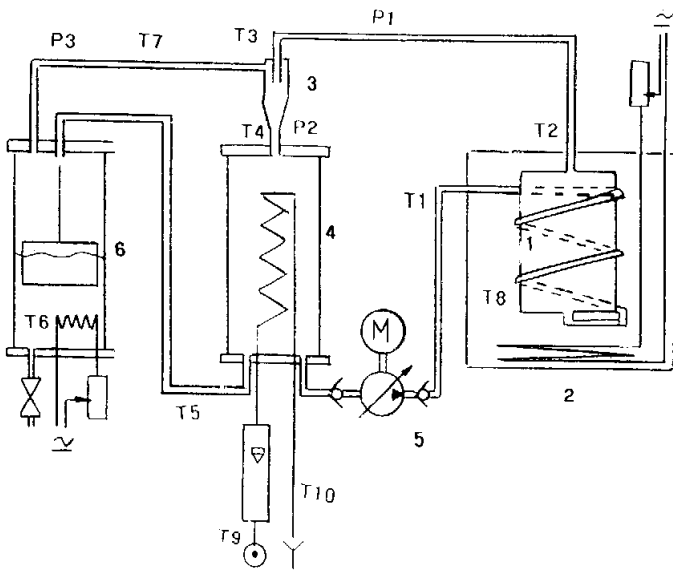
- ✓ This unit is delivered complete, with instrumentation and includes technical documentation and instructions.
- ✓ Functions as a heat pump or a refrigerator.
- ✓ Evaporation and condensation of the R 11 refrigerant may be observed in the glass exchangers.



SUGGESTED APPLICATIONS

- Study of the Rankine cycle.
- Study of the steam compression cycle.
- Curves of combined cycles on an enthalpic diagram.
- Calculation of the refrigerating power at the evaporator, at the condenser, at the eject-compressor, and at the steam generator.
- Calculation of the heat transferred at the exchangers.
- Calculation of efficiencies.

CRR 100



- 1. Refrigerant Steam Generator**
Volume : 0.9 liter
3/8" Preheated coil tube with liquid
- 2. Thermoregulator group**
Capacity : 5 liters
Coolant : oil
Power : 2 kW
- 3. Eject-compressor**
Aspiration and compression of refrigerant steam
Transmitting orifice : 1.1 mm
Collector orifice : 2.8 mm
- 4. Condenser**
Glass shell
Stainless steel coil tube
Height : 250 mm
internal diameter : 65 mm
- 5. Hydraulic membrane pump with adjustable flow**
Equipped with non return suction and back flow valves
Maximum pressure : 10 bars
Maximum flow : 19 L/h
- 6. Evaporator**
Glass shell
Adjustable heating cartridge
Expansion valve with stainless steel floater

UTILITIES

Electricity : 230 V - 50/60 Hz
Water : 250 L/h

DIMENSIONS

Length : 750 mm - Width : 600 mm - Height : 650 mm
Weight : 80 kg

Instruments

Three pressure measurements with manometer
Ten temperature measurements through T thermocouple
Digital temperature indicator
Adjustable section flow meter and adjustable valve on water at the condenser
Ammeter, voltmeter on the supply of the adjustable heating cartridge