

Maintenance unit of a household refrigerator

DESCRIPTION

- The unit contains a hermetic compressor, an air condenser with natural convection, and an evaporator with forced convection.
- The process is thermostatically controlled. The internal temperature can be adjusted to the range: $+1...10^{\circ}\text{C}$. The refrigerant is R134a, to comply with European standards
- The refrigerator is a vertical cabinet in which the components are far enough apart to be easily identified.
- The refrigerator is equipped with instruments to measure flow rates, temperature, pressure, and electric power. This allows for a complete study of the process.



SUGGESTED APPLICATIONS

- Functioning and maintenance of a refrigerator
- Functioning of a refrigeration system with vapour compression
- Constructing a diagram of the refrigeration cycle – computation of balance
- Diagnosis of electric or refrigeration failures.

CRM 016

TECHNICAL CHARACTERISTICS

REFRIGERATOR

- ⇒ Volume: 372 L
- ⇒ 1 door with thermo-insulating glazing
- ⇒ External appearance: stain recovered by white electrostatic paint
- ⇒ Insulation: HD polyurethane
- ⇒ Internal light
- ⇒ 7 adjustable shelves – 40 mm thick

FAILURES

- ⇒ The failures are the most common ones encountered by After Sales Departments.
- ⇒ Failures may be electric or refrigeration component related.
- ⇒ The teacher activates a failure with an infrared remote control. The student must then diagnose the problem.
- ⇒ The student is provided with a portable thermometer, manometer, voltmeter, and ammeter with which to make the diagnosis.

UTILITIES

Electricity : 230 VAC – single-phase – 50 Hz