CONDITIONING AND REFRIGERATION

LMR - Refrigeration Mobile Lab - Code 950100

1. General

Compact laboratory designed for training of 14 years students and over. It is particularly suitable to introduce the main and practical refrigeration applications in both vocational and technical schools. The trolley is completely mobile and has 5 storage drawers, protecting the equipment in shock-free, molded sponge pods.
You can organize the equipment according to the subjects for quick and easy setup and control of the equipment itself.
It is possible to compose the circuit on the aluminum surface to place on the working top.
Opportunity of fault insertion and detection.
The Refrigeration Mobile Lab is already equipped with all the necessary feed fittings according to the industrial standards.
It is ideal for all teaching environments and its modular design guarantees both flexibility and adaptability for all the experiments.
The drawers can be pulled out in all its length to allow safe and easily accessible storage of the valuable content.

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2. Composition and description

Components

- Hermetic compressor
- Forced Air Condenser
- Thermal expansion valve
- Dehydrating filter
- Defrosting resistance
- Circuit interception solenoid valve
- Coolant passage visualizer
- Control thermostat for the evaporator air temperature
- Thermometer for measuring the evaporator air temperature
- N° 2 manometers
- Manual valve
- Manual/automatic installation control panel
- Inner panel for fault insertion
- Temperature display
- Stop switch

Cutaway components

To get acquainted with all the circuit components and functions:

- Thermal expansion valve
- Dehydrating filter
- Circuit interception solenoid valve
- Coolant passage visualizer
- No. 1 manometer
- Manual valve

Tools

- Tool set for installation assembly and disassembly (set of wrenches, screwdrivers, files, hammers, etc.)
- Filling and emptying apparatus for installation starting
- Manometer group
- Welding torch
- Tubes and joints to weld
- Balance
- Thermometer
- Leak detector
- Vice

Teaching support

- No. 1 Digital screen with 7” LCD with visual explanation of the characteristics of the Refrigeration Mobile Laboratory (Conditioning) with integrated battery.

- Exercises with results and assembly instructions.

3. Experiments on refrigeration

- Planning, performance and procedure control for assembly, starting and commissioning of the refrigeration circuit.
- Working knowledge of a refrigeration unit and system as well as of the components being the elements of a refrigeration system.
- Assembly and disassembly of refrigeration circuit components and tubes with joints and fittings to weld or screw.
- Installation, wiring and connection of all the units and control elements.
- **I**nstallation of a refrigeration system with completely effective temperature regulation, refrigeration room and electric thermostat.
- Fault detection, check and solving. Detection of any possible leak.

4. Required services

- Electrical power supply: 220 V, single-phase, 50/60 Hz.

5. Weight and dimensions (referred to the complete system)

- Weight: 300 kg approx.
- Overall dimensions: 1500x600x930 mm approx.