

POSITIVE COLDROOM



Experimental capabilities

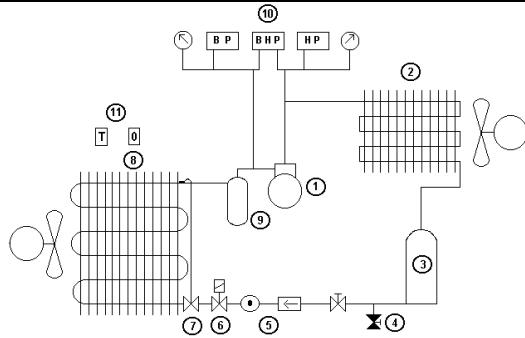
- **Operation of equipment at a compression level**
- **Hermetic reciprocating compressor**
- **Heat exchanges**
- **Powers**
- **Performance coefficients**
- **Fluid circuit**
- **Assembly and disassembly of piping network**
- **Possibility of modifications**
- **Commissioning.**

Operating principle

The robust design of this equipment makes it perfectly suited for use in schools. Its anodized aluminum structure on wheels makes it extremely robust as well as great flexibility of integration into your premises. The manufacturing of this equipment meets the European machine directive

This equipment can be used alone or with other compatible equipments of our range (see last section of this document).

Illustrations



1 - Hermetic compressor

Commercial type
Refrigerant: R 134 a
Cooling capacity: 727 W
- Condensing temperature
+ 43°C
- Evaporation temperature
+0°C
Maximum pressure: 16 bars

2 - Air condenser

With forced convection
In copper tube and aluminum fins
Mounted on the same chassis as the compressor
Electric fan power: 22 W

3 - Liquid tank

Vertical
Steel
Outlet valve \varnothing 1/4 "
Capacity: 1,5 L

4 - Recovery valve of the refrigerant

At base
Straight passage \varnothing 1/4 "
Mounted on the bottle

5 - Dehydration station

Solid cartridge dehydrator
 \varnothing 1/4 "
LED moisture indicator \varnothing 1/4 "

6 - Electromagnetic valve

Normally closed
Straight passage \varnothing 1/4 "

7 - Thermostatic expansion valve

Internal pressure equalization

8 - Air evaporator

With forced convection
Copper tube and aluminum fins
No fins: 4.23 mm
Electric power of fan 43W
Cooling capacity: 585 W to dt 7K

9 - Suction line accumulator.

Steel
Capacity: 1.5L

10 - System of control and safety

High pressure manometer
Low pressure manometer
Temperature controller with temperature display of the chamber, operation management (evaporator, compressor), room thermostat

Services required

- Power supply: 230Vac – 50 Hz –
- Dimensions: (LxWxH mm): 2000 x 800 x 1800
- weight (Kg): 155

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Configuration files (PLC, controller)
- Software :
- Certificate of conformity CE