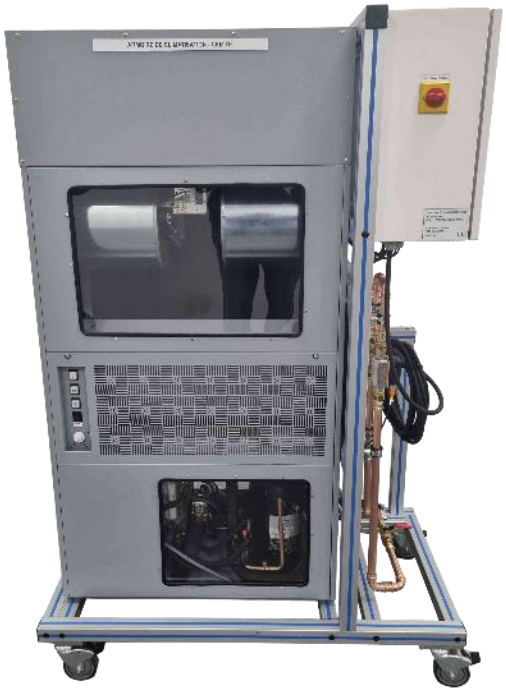
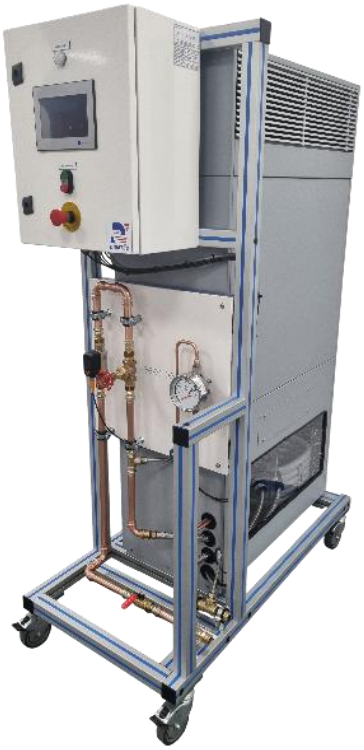
CRM018

AIR CONDITIONING UNIT (CRAC)





Experimental capabilities

- **Identification of the components of the system**
- **Commissioning and operation of a refrigeration system**
- **Measurement of operating parameters (temperatures, pressures, flow rates, power consumption)**
- **Basic maintenance operations.**
- **Role of the different bodies**
- **Thermal balance on the fluid part and on the air part**

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Operating principle

The CRM018 bench allows the study of an air conditioning cabinet with water condensation. This type of equipment is often used in data center-type rooms. The students will be able to identify the components of the installation, carry out commissioning and take note of operating parameters. They will then be able to analyze the parameters and make thermodynamic calculations.
It is possible to perform maintenance on the unit and apply the recommended procedures.
The rugged design of this equipment makes it perfectly suited for use in a school setting.
Its anodized aluminum structure on wheels gives it a very high robustness as well as great flexibility of integration into your premises.
The manufacture of this equipment complies with the European Machine Directive.

Technical details

1. Structure in screwed anodised aluminium profile equipped with four steering castors with brake.

2. Water-cooled air conditioning unit (CRAC)
   Cooling capacity: 8KW
   Puissance absorbed: 2.6KW
   Fluid: R407C
   Transparent walls for visualization of internal components

3. BP and HP pressure sensor with touchscreen display

4. Temperature measurements of the characteristic points of the circuit by fixed thermocouple type probes and indication on the touch screen on the electrical box (11 measuring points)

5. Measurement of electrical power consumption and display on the touch screen

6. Measurement of the flow of water consumed and display on the touch screen

7. Refrigerant flow measurement (local display on dial

8. Power supply box with standard safety features (master disconnect, RCD, emergency stop, etc.) and 7-inch touch screen for displaying measurements

9. Additional accessories included:
   -portable thermo hygrometer
   -portable anemometer

Services required

- Electrical supply : 230 Vac – 50 Hz – 16 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Power supply type: 1 phase(s) + Neutral + Earth.
- Dimensions: (LxWxH mm): 1190 x 600 x 1770
- weight (Kg): 110

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

- Instruction manual
- Pedagogical manual
- Technical documentation of components
- Practical work
- Electrical diagram
- Fluidic diagram
- Enthalpy diagram
- CE Certificate of Conformity

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