

REFRIGERATED DISPLAY CASE WITH FAULT SIMULATION



Experimental capabilities

- Study of a refrigerated display case
- Identification of the components of a refrigeration system with refrigerated display case
- Commissioning and measurement of operating parameters
- Adjustments and validation of proper functioning
- Fault simulation and diagnostics

Operating principle

The CRM011 trainer allows the study of a refrigerated showcase. Students will be able to identify the components of the machine, make the commissioning, record the operating parameters.

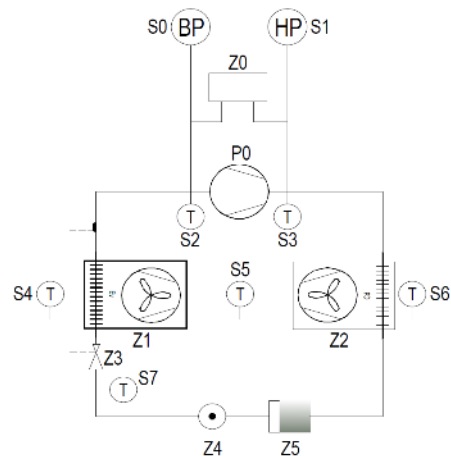
It is composed of a classic window found in supermarkets.

Breakdowns can be created by the teacher to allow the student to work on curative maintenance.

The robust design of this device makes it suitable for use in schools.

The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises. The manufacture of this equipment complies with the European standard for machinery manufacturing.

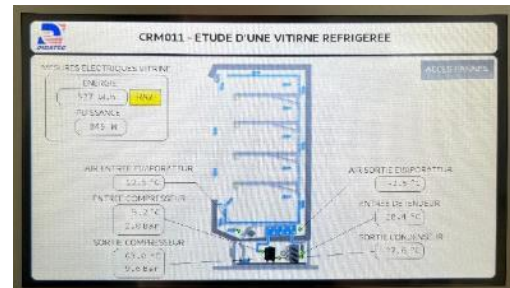
Illustrations



1. The trainer is equipped with an electrical box including safety (circuit breaker, AU, indicators ...) and the display of temperature measurements.
2. Open refrigerated commercial display case with shelves, light and temperature controller.
3. Hermetic piston compressor (operating between 0 to 6°C)
4. Forced air condenser with fan
5. Expansion valve
6. Forced air evaporator with fan
7. Manually reset safety HLP pressure switch
8. Structure in screwed aluminum profile movable on directional casters with brake

Technical details

9. Integrated instrumentation:
Touch screen with measurement display:
 - Compressor inlet temperature
 - Compressor outlet temperature
 - Condenser outlet temperature
 - Temperature inlet expansion valve
 - Temperature air inlet evaporator
 - Temperature air outlet evaporator
 - Temperature air inlet condenser
 - Temperature air outlet condenser
 - Compressor suction pressure (LP)
 - Compressor discharge pressure (HP)
 - Energy consumed.
 - Instantaneous electrical power
10. Fault simulation
Failures are simulated from the touch screen, a screen page is accessible by code and allows to activate one or more failures.



Services required

- Electrical supply : 230 Vac – 50 Hz – 10 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Dimensions: (LxWxH mm): 1500 x 800 x 1700
- weight (Kg): 150

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
- Technical documentation of the components
- Lab exercises
- Wiring diagram
- Fluidic diagram
- Enthalpic diagram
- Certificate of conformity CE