

HERMETIC COMPRESSOR ELECTRICAL WIRING STUDY



Experimental capabilities

- Study of the starting mode of a single-phase asynchronous electric motor compressor.
- Study of the components necessary to start an engine.
- Wiring of the power supply circuit of the motor compressor.
- Study and wiring of pressure switches and thermostat
- Powering up and testing.
- Pressure switch setting

Operating principle

Students will first identify the components of the installation and then make the electrical connection and proceed to commissioning.

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.

Technical details

The bench has the following elements:

1. A hermetic piston compressor
2. A high-pressure manometer with double temperature / pressure graduation
3. A high pressure switch
4. A manual valve on the high pressure line
5. Low pressure manometer with double temperature / pressure graduation
6. Low pressure switch
7. A manual valve on the low pressure circuit
8. A TOR thermostat
9. A capacitor
10. A klixon
11. A starter relay

12. A white light of presence voltage
13. A 30mA differential circuit breaker with unipolar disconnecter
14. A voltmeter
15. An ammeter

The terminals of the components are connected to double-well terminals on the front panel. A set of cords is provided to allow students to do the wiring. The circuit is under pressure and functional, the students can do the setting of the pressure switches. It is equipped with a safety valve

Services required

- Electrical supply : 230 Vac – 50 Hz
- Dimensions: (LxWxH mm): 800 x 600 x 650
- weight (Kg): 30

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
- Certificate of conformity CE