

Product Name :
Refrigeration Cycle Demonstration Equipment

Product Code :
TLI0002



Description :

Refrigeration Cycle Demonstration Equipment

Technical Specification :

Refrigeration Cycle Demonstration Equipment

- Observe the evaporation and condensation of the refrigerant.
- Represent and understand the refrigeration cycle in a diagram: log p,h.

Energy Balances

- Determination of the coefficient of performance
- Oil return in a submerged evaporator

Technical specifications

- An evaporator in which the coolant is vaporized and removes a certain quantity of heat from the water circulating in the copper tube coil.
- A hermetic compressor.
- A condenser.
- A pressure relief valve that allows the passage of coolant, liquid from the condenser, towards the evaporator by reducing pressure.
- A porthole window placed between the pressure relief valve and the evaporator allows observation of steam formation during the period of rest.

Instrumentation

- Two pressure gauges.
- Eight Pt100 sensors with a digital indicator
- Two flowmeters

Supplementary

- Option 1: Digital Wattmeter
- Option 2: Rotameter for the coolant flow rate
- Option 3: Acquisition module:
- Replacement of two gauges by piezometric sensors with analog output
- Interfaces 4-20 mA / RS485
- RS485 Converter – RS 432
- One OPC server
- Block diagram of the system developed in Labview

Essential requirements

- Electricity supply: 220/240 V single phase 50 Hz + Earth
- Water supply and drainage: 400 L/h, pressure 1 bar

Dimensions and weight

- 850 x 550 x 800mm – 50 kg

Civil Mechanical India

Website: www.civilmechanicalindia.com, **Email:** export@civilmechanicalindia.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, +91-0171-2601773