



Tesca Reverse Cycle Refrigeration & Air-Conditioning 32403 is designed to provide students with a thorough understanding of various types of systems used in commercial and industrial applications. It permits students to understand the refrigeration cycle, including measurement of pressure, vacuum, flow rate and temperature.

It is a mobile type training equipment, frame made of aluminum profile on castor wheel. Clear ergonomically mimic diagram consists of refrigeration and heat pump cycle diagram, digital thermometer, voltmeter, ammeter and pressure gauge incorporated.

The unit contains a reversing valve so that the system may be run as a heat pump in addition to operation as a refrigeration system.

Sight glasses at inlet and outlet of evaporator and condenser allows students to monitor changes in refrigerant state.

The system components are panel mounted to provide easy access for testing and troubleshooting. Optionally 'Data Acquisition System with interface & necessary Software can be provided.

List of Experiments Provided

- Study of operating principal of refrigeration & heat pump cycle.
- Determine the COP of refrigeration & heat pump cycle.
- Using heat pump cycle to defrost the evaporator.
- Troubleshooting of refrigeration cycle failure symptom and caused.
- Basic electric control circuit and system of common air conditioning system.
- Investigation on the operation of the compressor.
- Familiarization with the operating of metering devices, for instance, thermostatic expansion valve, automatic expansion valve, capillary tube.
- Study on the principles of evaporator and condenser – superheating and sub cooling, heat exchanger.
- Investigation of refrigeration system.



Reverse Heat Valve



Flow Meter & Charging Gauges

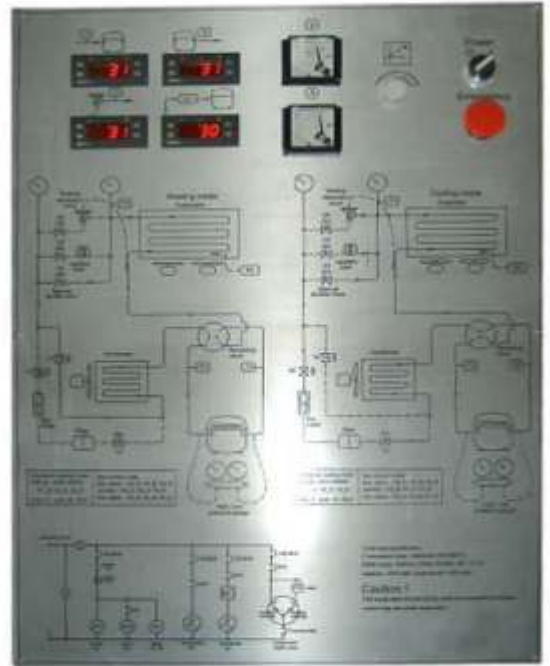
Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com

Technical Specifications

- Compressor
 - Hermetic : 0.75kw
 - Refrigerant : R-134A
 - Voltage : 240 Vac
- Condenser
 - Forced air coil with variable speed fan
- Control devices
 - Low pressure switch
 - High pressure switch
 - Back pressure regulator
 - Capillary tube
 - Automatic expansion valve
 - Solenoid valves
 - Thermostatic controller
 - Flow Meter
 - Wattmeter, Voltmeter, Ammeter
 - Thermometer
- Safety features
 - Safety pressure switch
 - Main breaker switch
 - Compressor breaker switch
- Evaporator
 - Air Cooled Type
 - Water Source Type



Mimic Diagram

Scope of Delivery

Operating instructions, Student experiment book, and Teacher's answer book.

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com