BENCH FOR STUDYING THE REFRIGERATION CYCLE

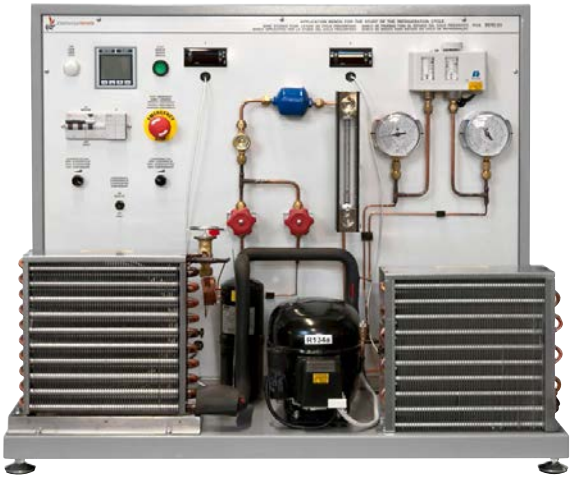
Mod. BDRC/EV

INTRODUCTION

This unit has been designed for students so that they can acquire the scientific and practical knowledge of the operation of vapour-compression refrigeration cycle.
This equipment has been manufactured according to the safety standards and the used refrigerant complies with anti-pollution measures.

TRAINING PROGRAM

- Studying the refrigerant phases versus pressure and temperature
- Detecting refrigerant pressures, temperatures and flow rate when the equipment is running
- Plotting the refrigeration cycle onto the pressure-enthalpy diagram and detecting the specific thermal energy exchanged at the evaporator and at the condenser
- Studying the operation of a thermostatic valve and of a capillary tube for gas expansion
- Determining the exchanged thermal power
- Determining the thermostatic valve superheat
- Determining the compressor volumetric efficiency
- Assessing the system E.E.R.



TECHNICAL SPECIFICATIONS

- Steel structure painted with epoxy paint and baked
- Hermetic compressor with protector
- Forced-air evaporator and condenser (variable speed)
- Thermostatic expansion valve and capillary tube for controlling flow rate
- Liquid separator
- Dehydrator filter
- Sight glass
- On-off valves
- Double pressure switch
- Operating valve for system filling and draining
- Flowmeter
- High and low pressure gauges
- 2 electronic thermometers with Pt100 probes to be inserted in various test points arranged along the circuit
- Digital multimeter
- Thermomagnetic - earth leakage control button
- Fuses
- Start button
- Emergency button

Power supply: 230 Vac 50 Hz single-phase - 380 VA
(Other voltage and frequency on request)
Dimensions: 90 x 45 x 76 cm
Net weight: 65 kg

SUPPLIED WITH

EXPERIMENTAL HANDBOOK

OPTIONAL (REF. ACCESS. AND INSTRUMENTS)

PORTABLE VANE ANEMOMETER MOD. THAN

PORTABLE THERMOHYGROMETER WITH REMOVABLE PROBE MOD. THHY