# COOLING SYSTEMS

# S-801 BASIC REFRIGERATION TRAINING SET



# **GENERAL EXPLANATION**

This training set is designed to demonstrate the basic features of the mechanical compression refrigeration cycle and the evaporation of the refrigerant in the transparent evaporator can be observed with different expansion options.

#### **EXPERIMENTS**

- 1. Observation of the refrigeration cycle and the relationship between pressure and temperature
- 2. Cooling cycle monitoring experiment
- 3. Experiment of using capillary tube as flow control
- 4. Experiment to use automatic expansion valve as flow control
- 5. The use of a thermostatic expansion valve
- 6. The function test of the heat exchanger
- 7. Experiment of setting pressure switches
- 8. Experiment of increasing compression pressure

### **DIMENSIONS**

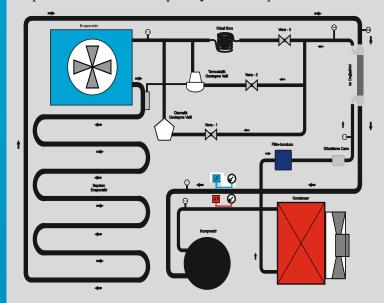
A x B x H : 1245 x 700 x 1500 mm

#### **OPTIONAL FEATURES**

- Touch LCD Display
- USB Computer Connection
- Computer Control

## **TECHNICAL SPECIFICATION**

The training set is designed to teach the basic refrigeration cycle and its components. Condenser, evaporator, expansion valve, compressor, capillary tube, filter drier and other basic elements are introduced and their functions are explained. As the pressure-enthalpy diagram, the PH diagram of R-134a gas is used. Comparisons of automatic expansion valve, thermostatic expansion valve and capillary tube are possible.



#### **TECHNICAL DETAILS**

- Hermetic reciprocating compressor
- Forced air winged condenser
- Forced air winged evaporator
- Transparent evaporator
- Internally balanced thermostatic expansion valve
- Evaporator heat control
- Inner tube heat exchanger
- Combined pressure switch
- Digital temperature measurement from 6 different points

#### **PACKAGE INCLUDED**

Device, device cover, 1 printed experiment report, circuit diagram and product catalog