



ZM6106 General Refrigeration Trainer



I. Introduction

This trainer is designed for the in-depth study of vapour-compression cycle. It enables to vary the load conditions of condenser and of evaporator, to use alternative devices for gas expansion, to handle successfully unexpected operating situations, such as the block of the refrigerant flow or a wrong gas charge inside the circuit. Students can become familiar with the refrigerant pressure-enthalpy diagram and evaluate the heat balances corresponding to the different cycle components, by using the set of industrial instruments of the equipment. Supply software which can monitor voltage, current, frequency, power, power factor, pressure, flow, etc, they can be displayed on PC in real time, and can print report.

II. Training Program

Plant starting and safety devices intervention checking
Studying the operation of a thermostatic expansion valve
Analyzing the system behaviour versus the variation of :

- Expansion device
 - Superheat (when the thermostatic expansion valve is used)
 - Air flow rate at condenser and/or evaporator
 - Refrigerant charge into the system
- Plotting the cycle in the refrigerant pressure-enthalpy diagram
Data acquisition and calculation of :
- Thermostatic valve superheat
 - Heat balances corresponding to evaporator, condenser, compressor
 - Refrigerant mass flow
 - Ideal and actual efficiency
 - Volumetric compression efficiency
- Troubleshooting of system and of its components

Supplied with:

English General Refrigeration Manual
English Experimental Handbook

Note :

Due to keeping innovation, the specification and Machine pictures or color are subject to alteration without notice!