

# model: **Basic refrigeration-GTBD50307**

## **Basic Refrigeration Trainer**

### **Description**

1. It has the possibility of the experiment on temperature, pressure, automatic control and mechanical trouble.
2. It has the possibility of experiment and theoretical education related to automatic control, refrigeration system and refrigerator accessories.
3. It has the experiment on cycle change of refrigeration equipment according to temperature and Mollier diagram drawing in P-I diagram drawing part.
4. It has the theoretical education of efficiency test and experiment while operating.
5. The sequence screen is attached to the graphic module control department and power automatic control machine for experiment on temperature, pressure and automatic control and operation.
6. The control department is made up of visual lamps separated system from machine department.
7. Automatic control with graphic panel and two automatic control modules.
8. Data formation by data auto-saving and P-I diagram auto-operation in the system with control program.

### **Experiments (Study Objectives)**

1. Fitting refrigerant
2. Vacuum test
3. Leak test
4. Troubleshooting at refrigeration machine
5. Troubleshooting at electric circuit
6. Fitting electric circuits
7. Refrigeration effect as ratio of the expansion V/V in standard refrigeration system
8. Temperature control at evaporator
9. Temperature control at condenser
10. Pressure control at low side
11. Pressure control at high side
12. Pump-down operation

## System configuration



1. Electric control module
2. Graphic module
3. Compressor
4. Condenser
5. Expansion V/V
6. Evaporator chamber
7. Chamber damper
8. Pressure gage
9. Temperature switch

## Specifications

1. Compressor : Min. 1/2HP
2. Condenser : Air-cooled type
3. Evaporator : pin, Tube aircooled type
4. Evaporator chamber : damper
5. Expansion Valve : Manual type
6. Liquid receiver : Min. 1/2HP
7. Accumulator : Min. 1HP
8. Electronic valve : Min. 3/8" nut clamp type
9. Manometer
10. Fitting nipple
11. Sight Glass
12. Electric control module : DC24V
13. Graphic module : digital DC24V
14. Thermostat range : -40℃~100℃
15. Pressure switch range : Low side: 0bar~5bar, High side: 5bar~30bar
16. Dimension (LxWxH) : Min. 1400x720x1720mm
17. Weight : Approx. 120kg

## Supplied with

1. Electric control module
2. Refrigeration Machine module
3. Banana jack : 20 each black and red
4. User manual book
5. Data acquisition module
6. Computer monitoring program S/W
7. Warranty : 1 year with services
8. Required documents
  - 1) Manufacturer's Authorization Letter with contact details
  - 2) ISO Certificate
  - 3) Catalog file
9. Installation, Testing, Commissioning and Training is provided by bidder's experienced engineers at laboratory side.