

RAC03.xls
Revision No:03
Date: April 23, 2021

REFRIGERATION TRAINER WITH FAULT TUTOR



FEATURES

- Compact, comprehensive, sturdy design
- Smooth and silent operation
- Total instrumentation for complete heat balance
- Direct flow measurement of refrigerant
- Fault simulation

DESCRIPTION

An invaluable aid in the effective understanding of the refrigeration process. The trainer is designed for the study of thermodynamics of vapour compression refrigeration cycle by way of demonstration and experimentation. The Fault Trainer has a teacher panel that can be kept out of student control. The teacher can create a fault. The students then diagnose and locate the fault.

INSTRUCTION MANUAL

Self-explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual

LIST OF EXPERIMENT

To Study Fault of

Fuse blown-off	Less refrigerant
Main overload relay faulty <small>Not for Open type compressor</small>	Evaporator choked
Main overload relay tripped <small>Not for Open type compressor</small>	Drier fully choked
Faulty starting relay <small>Not for Open type compressor</small>	Drier partially choked
Condenser fan motor winding open	Expansion Valve filter choked <small>For more than 1T only</small>
Expansion valve malfunction	Thermostat malfunction

COMPONENTS

1. Compressor
2. Condenser
3. Expansion Device
4. Temperature Indicator Digital type, with sensors
5. Evaporator coil
6. Electric heater: To load the system
7. Pressure gauges
8. Flow indicator to measure refrigerant flow
9. Water Stirrer
10. Energy meter
11. HP LP Cut out
12. Fault introducing Unit

OPTIONAL ADDITIONAL

1. Computerised refrigeration trainer
An advanced personal computer based model. This system has facility of data acquisition, plotting on-line and historical trends. It carries out complete calculations to determine performance. A comprehensive HELP menu makes the system user friendly.
2. Refrigeration components cut away model board.

Note: Details of attachments can be made available on request.



SERVICES REQUIRED

- Water supply and drainage arrangement
- Electric supply

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(1) Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice
(2) Photographs are indicative only