

## COMPUTERISED AIR-CONDITIONING TRAINER

MODEL: RAC19



### FEATURES

- Compact, sturdy and safe design
- Controls temperature, humidity and air movement
- Total instrumentation for complete heat balance

### DESCRIPTION

An invaluable aid in the effective understanding of the Industrial air-conditioning process. The equipment incorporates air-conditioning process demonstrator, transducers to measure the performance characteristics, signal conditioner, interface device and Windows based software.

The trainer is designed to bring out the specific constructional features of Industrial air-conditioning system and to study the performance characteristics.

This system has facility of data acquisition, plotting on-line and historical trends. It carries out complete calculations to determine performance. Graphical as well as tabular data presentation makes the analysis easy. A comprehensive HELP menu makes the system user friendly.

### INSTRUCTION MANUAL

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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

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1. Study of a typical air conditioning unit.
2. Study of humidification, dehumidification process
3. Determine the COP of the system
4. Study of temperature sensor
5. Study of pressure sensor
6. Study of PC based data acquisition system

### COMPONENTS

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1. Compressor
2. Expansion Device: Capillary
3. Control chamber and ducting : Houses sensors, thermostats and axial fan
4. Measuring vessel to measure water condensed at dew point conditions
5. Air cooled evaporator
6. Electrical Heater to load the system
7. Humidifier: Steam generation by using electrical heater
8. H.P. / L.P cut out
9. Data Acquisition System
10. Temperature sensor/transmitter
11. Pressure sensor/ transmitter

### OPTIONAL ADDITIONAL

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1. Refrigeration components cut away model board.
2. Flow Sensor/transmitter
3. PC with Colour monitor with Windows with USB Port

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

### SERVICES REQUIRED

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- Electric supply

#### NiYo Engineers

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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