

**Product Name :** " EXPERIMENTAL MODULE REFRIGERATION SYSTEM "  
**Product Code :** " R.A.C 16 "



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**Description :**

## **EXPERIMENTAL MODULE REFRIGERATION SYSTEM:-**

### **AIM:-**

#### **Fundamental principles of refrigeration engineering:-**

- Components of a refrigeration circuit
- Calculations in a refrigeration circuit:
  - coefficient of performance
  - volumetric efficiency
- Plotting a p-h state diagram

### **INTRODUCTION:-**

Refrigeration is the branch of science that deals with the process of reducing and maintaining the temperature of a space of material below the temperature of the surrounding. Heat must be removed from the body being refrigerated and transferred to another whose temperature is below that of the refrigerated body.

### **TECHNICAL SPECIFICATION:-**

The facilitates fundamental experiments in the area of refrigeration engineering. The unit contains a closed refrigerant circuit with open compressor, a condenser with switchable fan and an evaporator in a refrigeration

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box with transparent door and an adjustable heat load.

### **Specification**

1. Experimental module for refrigeration unit.
2. Open compressor, 1 cylinders.
3. Refrigerating chamber with transparent door and adjustable heat load.
4. Lamellar radiator as heat load.
5. Air-cooled evaporator.
6. Condenser with fan.
7. Electronic sensors with digital displays for measurement of pressure, temperature, flow rate.
8. PC data acquisition via software.
9. CFC-free refrigerant R134a