

## RAC-007 WATER CHILLING PLANT



### **RANGE OF EXPERIMENTS TO BE CARRIED OUT:**

1. To study all components used in Air Conditioning system.
2. To study the Vapor compression Refrigeration cycle.
3. To determine the Refrigeration Effect, Work Input, Actual C.O.P., Carnot C.O.P., Theoretical C.O.P., Relative C.O.P., Ton of Refrigeration, and Plant Efficiency.

### **TECHNICAL DESCRIPTION :**

The equipment consist of hermetically sealed compressor, condenser , expansion device and evaporator. The high pressure and high temperature compressed gas is passed through the air cooled condenser where its temperature drops down and it will come in liquid phase . The flow rate of liquid phase gas is measured by using rotameter, goes to expansion device where its temperature drops down. From expansion device gas goes to evaporator. From evaporator it will come to compressor and refrigeration cycle is completed. Temperature is measure across condenser and evaporator inlet and outlet respectively. compressor suction and discharge side pressure is also measured. The panel consists of switches, energymeter, pressure gauges, HP/LP cutout , Thermostat.

**DIMENSIONS AND WEIGHT :**

Size :2 m.(L)x 1.5 m(W) X 1.5m ( H )

Weight :Approx. 150 Kg

**SERVICE REQUIRED :**

230 v Ac Supply 50 Hz

**SCOPE OF DELIVERY:**

1. Experimental Setup
2. Instructional Manual

**OPTIONAL FACILITY:** Data logging Facility