

**Product Name :**  
 REFRGERATION TEST RIG

**Product Code :**  
 Conditioning0007



**Description :**

REFRGERATION TEST RIG

**Technical Specification :**

The Refrigeration Test Rig works on vapor compression cycle. The refrigeration (i.e. process of maintaining a closed space temperature below ambient temperature) is accomplished by continuously circulating, evaporating and condensing a fixed supply of refrigerant in a closed system. Evaporation occurs at a low temperature and low pressure while condensation occurs at a high temperature and pressure. Thus it is possible to transfer heat from an area of low temperature (in this case calorimeter) to an area of high temperature (the surroundings). The required instrumentation is provided to measure the various parameters at different points. This includes pressure gauges, temperature indicators and controller, energy-meters, heater for applying load and flow meter to measure the refrigerant flow

**TECHNICAL SPECIFICATIONS OF REFRIGERATION TEST RIG**

CA	500
PA	WATTS
CIT	AT
Y	RATED
	TEST CO
	NDITION
	S.
RE	R-134 a
FRI	
GE	
RA	
NT	
C	HERMET

OMI PR ES SO R	CALLY SEALED Make: E MERSO N CLIMATE TECHNO LOGIES LTD.OR EQUIVAL ENT.
CO ND EN SE R	FORCED CONVEC TION AIR COOLED
CO ND EN SE R F AN MO TO R	INDUCTI ON TYPE
DR IER / FI LT ER	PROVID ED
EX PA NSI ON DE VIC E	CAPILLA RY TUBE
RE FIG ER AN T F LO W ME AS UR ME NT	GLASS TUBE R OTAMET ER
EV AP OR AT	FORCED CONVEC TION AIR COOLED

OR. HP/ LP CU TO UT	PROVID ED
PR ES SU RE IN DI CA TIO N	PRESSU RE GAU GES, 2NOS P ROVIDE D
EN ER GY ME TE R	2 NOS P ROVIDE D. EACH ONE FOR CO MPRESS OR & HEATER
TE MP ER AT UR E C ON TR OL OF TH E T ES T C HA MB ER	AUTOMA TIC BY T EMPERA TURE C ONTROL CLER
SU PP LY	230 VOLTS, 50HZ, 1 PHASE, AC.
CO NS TR UC TIO N	MAIN BODY: 18 G CRCA, P OWDER COATED CALORI

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METER: STAINLE SS STEEL
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**LIST OF EXPERIEMNTS:**

- To evaluate the cooling capacity in Watts & in Tons of the system.
- To evaluate actual and theoretical C.O.P. of Vapor Compression Cycle.
- To plot the actual Refrigeration Cycle on P-H chart.
- To study various components and controls used in Vapor Compression Cycle.

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