

Product Name :
ICE PLANT TEST RIG 24 KG PER DAY

Product Code :
Conditioning0004



Description :

ICE PLANT TEST RIG 24 KG PER DAY

Technical Specification :

The Ice Plant Test rig works on simple vapour compression refrigeration cycle and uses as a refrigerant. These are environment friendly. The system is fabricated such that students can observe and study ice formation process. It is also useful to understand working of vapour compression system, its performance and controls used. The arrangement of parts such that, all the parts are visible and working can be easily understood.

TECHNICAL SPECIFICATIONS:	Ice Production Capacity	: 24 kg in a day of 24 hrs. After attaining brine temperature of -5 deg C, ice cans will be loaded. Number of ice cans = 4 nos; Ice qty per can=0.5 kg Ice production per batch = 2 kg Cycle time per batch = 2 hrs.
	Compressor	: Hermetically sealed. Emerson/ Tecumseh/ Danfoss or equivalent make.
	Condenser	: Forced convection air cooled
	Condenser fan	: Axial flow type
	Evaporator	: Immersed (Refrigeration grade copper tube); Direct expansion type; 3/8" OD x 35'
	Drier/ filter	: Provided; Molecular sieve type
	Expansion device	: Capillary tube
	Insulation	: 65 mm thick, Polyurethane foam (PUF)

Refrigerant	:	R 134a/404a
Temperature	:	Temperature indicator with 6 no. of selector points provided
Pressure	:	2 Nos. for suction and discharge
Brine Solution	:	Ethylene Glycol + Water
Supply	:	230 Volts, 50 Hz, 1 phase.
Input power	:	400 Watts.
Rated current	:	3.0 Amps
Stirrer Motor	:	Provided.
Energy-meter	:	For compressor provided.
Outer body	:	1.2 mm thick CRCA
Brine Tank	:	SS 304/ PVC

LIST OF EXPERIMENTS:

TO EVALUATE CAPACITY OF THE ICE PLANT.

TO CALCULATE C.O.P. OF THE SYSTEM.

TO PLOT SYSTEM PERFORMANCE ON P-H CHART.

 **LAB ENGINEERING**

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