Computerized Vapour Absorption Refrigeration Test Rig (Product Code: RACC03)



Features

- Extensive range of Experiments
- Comprehensive facility for complete investigation of refrigeration cycle.
- Major components utilized are of standard industrial practice.
- Low capital cost.
- Comprehensive modern instrumentation.

Product Description

This test rig is used to great advantage when introducing students to the Vapour absorption refrigeration cycle. The Vapour absorption refrigeration system is an Electrolux make, it resembles to a mini household refrigerator. The Vapour absorption system used in the rig consists of generator, condenser, evaporator, absorber and a heater, which is all in a sealed unit therefore; the pressure and the flow rate of ammonia inside the circuit cannot be measured.

The test rig is portable trolley mounted, hosed on a MS frame tube with wooden platform & front panel, finished by lamination to give elegant finish. The panel consists of all the necessary instruments like voltmeter, ammeter, and temperature inductor.

Required temperature at generator, condenser, evaporator, absorber & heater are measured. The power consumed by the unit is measured using a digital voltmeter & ammeter.

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Computerized Vapour Absorption Refrigeration Test Rig (Product Code: RACC02)

Product / Component Specification

Vapour absorption system	Electrolux
Mains ON/OFF switch	10 amps
Condenser cooling fan	4” square (2 No’s)
Digital voltmeter	0 – 300volts AC
Digital ammeter	0 – 5 Amps AC
Temperature indicator	-50 to +150
Selector switch	2 pole 6 way
Thermocouple	K type (CR/AL)
Evaporator heat exchanger	Copper coiled
Thermocouple selector switch	Standard
Stop watch	Electronic
Plastic measuring jar	100cc

Data Acquisition Card

Analog Input	
Differential Channels	12
Resolution	12 bits
Sample Rate	200 Ks/s
Max Voltage	5 V
Number of Ranges	4
Simultaneous Sampling	Yes
On-Board Memory	5120 samples
Analog Output	
Channels	2
Digital I/O	
Input-Only Channels	30
Output-Only Channels	12
Timing	Software
Logic Levels	TTL
Maximum Input Range	0 V - 5V
Maximum Output Range	0 V - 3.3 V
Counter/Timers	
Counters	2
Max Source Frequency	84 MHz
Resolution	12 bits
Logic Levels	TTL
Total DC output Current on all I/O lines	130mA

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