



Computerized Window Air Conditioner Trainer (Product Code: RACC05)



Features

- Extensive range of Experiments
- Mobile unit.
- Major components utilized are of standard industrial practice.
- Low capital cost.
- Comprehensive modern instrumentation.
- Control console incorporating instrumentation schematic for complete operation.
- Rapid start-up for effective use of laboratory time.

Product Description

This test rig is used to great advantage when introducing students to the air conditioning system. 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 and components like voltmeter, ammeter, and temperature inductor energy meter Rota meter, pressure/compound gauges, and LP/HP cutout.

The unit is fitted with a flow diagram that illustrates the constructional and operational features. The platform consists of compressor, fan, condenser; evaporator and an expansion device enclosed in a window AC kit.



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Product / Component Specification

Hermetically sealed compressor	1.5 ton (Tecumseh or Kirloskar or)
Air cooled condenser	12" x 13" x 2 rows
Fan motor with blade	1/83 HP
Expansion device	Capillary & thermostatic expansion valve
Rota meter	0.4 to 4 LPM (eureka or equivalent)
Hand shut off valve	¼" (7 No's)
Energy meter	5 – 10 Amps (BHEL or equivalent)
Thermostat	Freon 12 (Indfoss or equivalent)
Digital voltmeter	0 – 300 Volts AC
Digital ammeter	0 – 10 Amps AC
Digital temperature indicator	-50 to +150
Thermocouple	K type (CR/AL)
DP switch for mains	15 Amps
Evaporator coil	Copper
Filter drier	Indfoss or equivalent
Solenoid valve	Indfoss or equivalent
Pressure/Compound gauges	Indfoss or equivalent
Thermocouple selector switch	Standard
LP/HP cutout	Indfoss or equivalent
Stop watch	Electronic
Vacuum gauge	Adarsh/Equivalent
Pressure gauge	Adarsh/Equivalent

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