

**Product Name :**  
Air Conditioning System Trainer

**Product Code :**  
CHINAELABC2560001



**Description :**

Air Conditioning System Trainer

**Technical Specification :**

The Air Conditioning System Trainer represents a complete air conditioning system with an air duct and a climatic chamber.

The main components of the air conditioning system are the air cooler with condensing unit, fan, steam humidifier and air heater.

Three motorized ventilation flaps control the air distribution in the air conditioning system.

The climatic chamber is equipped with two different heat sources (wet and dry).

Temperature and relative humidity are measured at relevant points in the air duct and displayed digitally.

For the refrigeration circuit two manometers with integrated temperature scale and a flow meter provide all relevant measurements.

**FEATURES:**

Air conditioning system and its components

Conditioning room air

Effect of a cooling load (dry and wet)

Humidification and dehumidification

Heating and cooling

Mixing different air flows

Representation in the h-x diagram for humid air

Representation of the circuit in the log p-h diagram

**SPECIFICATIONS:**

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Air duct with transparent front  
Air duct with fan, air cooler, humidifier, flaps, air heater and sensors  
Air-cooled condensing unit  
Chamber with wet (latent) and dry (sensitive) heat source as cooling load  
Power consumption: 140W at -10°C  
Refrigeration capacity: 320W at +5/40°C  
Humidifier  
Heating power: 400W  
Air heater  
Heating power: 360W  
2 heaters in the chamber as cooling load  
Power output: 0...250W each, freely adjustable  
Flow cross-section of the air duct  
WxH: 155x155mm  
Refrigerant: currently available in the market  
Filling volume: 1,2kg  
CO2-equivalent: 0,8t

Measuring ranges :  
Air velocity: 0...2,5m/s  
Temperature: 0...50°C  
Rel. humidity: 10...90%  
Power consumption: 0...600W (condensing unit)  
Power: 2x 0...300W (cooling load)  
Pressure: -1...9bar / -1...24bar (refrigerant)  
Flow rate: 1,5...23,5L/h (refrigerant)

Required for operation :  
230V, 50Hz, 1 phase  
230V, 60Hz, 1 phase



**Engineering Lab China**