

Product Name :
Astra Scientific Computerized Bench Top Cold Storage Trainer

Product Code :
RefrigerationLab0006



Description :

Astra Scientific Computerized Bench Top Cold Storage Trainer

Technical Specification :

The trainer features a large refrigeration chamber. Two evaporators allow for an investigation of the effect of different evaporator sizes on the cold storage room climate and the icing. An electric defrost heater and hot gas defrosting are available. The defrost process can be performed as required using a defrost controller or at set intervals using a defrost timer.

Two adjustable heat sources in the refrigeration chamber simulate the cooling load. One of these heat sources generates water steam to simulate the introduction of humidity into the refrigeration chamber.

The measured values can be read on digital displays. At the same time, the measured values can also be transmitted directly to a PC via USB.

The data acquisition software is included. The data acquisition enables e.g. the recording of the defrosting process over time and the online representation of the climate in the refrigeration chamber in the h-x diagram. The flow rate of the refrigerant is determined by means of the pressure measurement.

FEATURES:

- Effect of the evaporator size and temperature on the climate in the refrigeration chamber
- Frosting and icing under different operating conditions
- Difference between latent and sensitive cooling load
- Different defrosting methods (electric heater, hot gas)
- Configuration of defrost controls such as defrost timer or defrost controller

SPECIFICATION:

- Compressor suitable capacity

Refrigeration capacity at -5/55°C: 999W

Power consumption: 565W

Latent cooling load: 2x 0...250W

Sensitive cooling load: 1x 0...200W, 1x 0...250W

- Receiver: 1,3L
- Refrigerant R134a/22/etc.

Filling volume: 1,3kg

CO₂-equivalent: 0,8t

- Measuring ranges

Pressure: 2x 0...16bar, 1x 0...25bar

Temperature: 7x -50...150°C; 1x -25...125°C

Rel. humidity: 0...100%

Flow rate: 2...27L/h

- Required for operation

230V, 50Hz, 1 phase

230V, 60Hz, 1 phase



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