

CRD 401

Refrigeration cycle demonstration apparatus



This refrigeration cycle demonstration unit is delivered complete with instrumentation as well as technical and Instruction manuals.

It deals with the demonstration of a refrigeration cycle involving mechanical charging, as well as the calculation and dimensioning of a refrigeration system.

It is designed and constructed to meet industrial standards

It may be used at different levels and in various fields of study.

It uses the refrigerant R 134 a as required by new regulations covering the use of refrigerants

Suggested Lessons

- Study of the basic concepts involved in a R134a refrigeration installation

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- Study of the important phases of one refrigeration cycle (compression – condensation – evaporation)

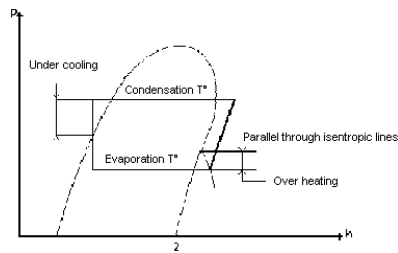


Diagram of a theoretical refrigeration cycle

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- Analysis of the theoretical refrigeration cycle

- Analysis of the real refrigeration cycle

- Determination of loss of charge
- Determination of overheating
- Determination of under cooling

- Determination of the frigorific power through the evaporator
- Determination of the power through the condenser

- Calculation of thermal results through a condenser and through an evaporator

- Construction of the refrigeration cycle in a state diagram

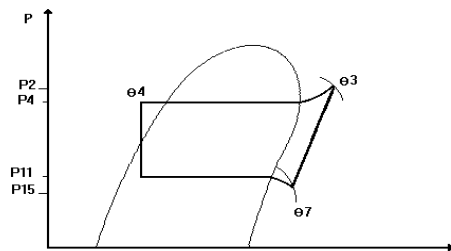
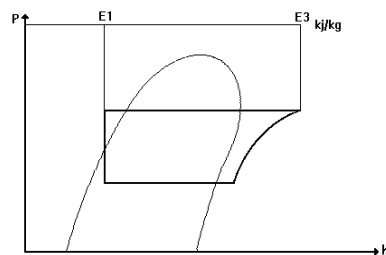


Diagram of a real refrigeration cycle

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Power through the condenser

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Specifications

The refrigeration cycle demonstration apparatus, CRD 401 is a refrigeration block of one compression stage in a commercial unit. It is equipped with industrial materials generally used in the refrigeration industry.

This unit uses refrigerant R 134a, which is now a preferred refrigerant.

Optional extra

This unit can be computerized.

Dimensions

Length	800 mm
Width	800 mm
Height	1750 mm
Weight	120 kg

Utilities

Electricity: 230 VAC single-phase –
1.1 A
other voltages can be provided on request
Water: 3 L/min (network)

Shipping

Packing dimensions:
Length 870 mm
Width 870 mm
Height 1820 mm
Global weight 226 kg

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