Design - Calculation - Measuring - Optimisation

CoolTool
AC & R technology

Module 1
one stage refrigeration plants

Module 2
two stage refrigeration plants

Module 3
compound plants with direct evaporation

Module 4
cold water compound plants

Module 5
compound plants with flooded evaporation

Module 6
h,x- chart, air humid handling

Module 7
cold room calculation

Module 8
air conditioning / load calculation

Module 9
cool draw incl. EN1861 /DIN 40 900 symbols

Module 10
heat pump design

Module 11
calculation

Module 12
enersim pro energy optimisation

Module 13
compound satellite system

Module 14
database with more than 25.000 parts

Diagnostics, Performance Measurement, Troubleshooting, Optimisation and Eenergy Monitoring

Module 15
CoolTool DIAGNOSTICS Softwaremodule

+ DIAGNOSTICS HARDWAREPACKAGES:

- CoolTool DIAGNOSTICS BASIC
- CoolTool DIAGNOSTICS STANDARD

CoolTool
DIAGNOSTICS

More possible solutions:
www.cooltool-software.com

CoolTool
TECHNOLOGY GmbH

INTEGRATED HARD- AND SOFTWARESOLUTION FOR THE AC & R INDUSTRY

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DESIGN
CALCULATION
MEASURING
OPTIMISATION

CoolTool SOFTWARE

CoolTool DIAGNOSTICS

INTEGRATED HARD- AND SOFTWARESOLUTION FOR THE AC & R INDUSTRY

Single- stage refrigeration circulation flow

A core module of the CoolTool software for the design and calculation of components and pipelines for a single-stage refrigeration plant and air conditioning systems. Through direct connection to the (internal) components database, they can be selected precisely and included into the parts list.

Direct evaporation- compound plants

Future- proof plant concepts such as parallel- compaction for trans critical CO_2-plants can be calculated and documented in a short time.

Two- stage refrigeration circuit

Designing of efficient plant engineering by two- stage compaction.

Chilled water compound plants

The design and construction of indirect chilled water systems is increasingly becoming the focus of plant construction. Even challenges, such as hydraulic balancing according to EnEV §9, can be successfully implemented.

Compound plants for Flooded evaporation

Particularly in the field of ammonia- and CO2- plant-technology, flooded evaporation is widespread, from the input of pumps, circulating numbers and system data up to documentation and system diagram.

Cooling load calculation

Simple and detailed Cold- room calculation based on primary cooling loads (internal database) and secondary cooling load.

Air volumes/ -cooling load calculation

Location-specific national- u. International cooling and heating load calculation of the different internal and external loads like heat transmission, sun radiation, air exchange, persons and electrical power. Display and calculation of complete air process with cooler, heater and humidifier.

Diagnostics

With the mobile measuring system for monitoring, checking, troubleshooting and optimisation of refrigeration and air conditioning systems, as well as performance measurments, operating data can be recorded, which are evaluated directly with the proven CoolTool algorithms in log p h diagram.

Monoflow / compound satellite system

The design of composite systems on two evaporation levels with common liquid line. Even comprehensive booster systems with up to 80 evaporators can be calculated and displayed in a short time.

Mobile hardware solution for the malfunction detection and system optimisation of refrigeration and air conditioning systems.

The Plug & Play system enables the recording of the entire plant process and the direct evaluation of the operating points.
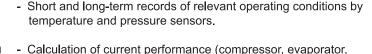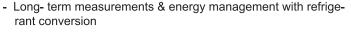
- Short and long-term records of relevant operating conditions by temperature and pressure sensors.

- Calculation of current performance (compressor, evaporator, condenser)

- Long- term measurements & energy management with refrige-rant conversion

- Evaluation of the most important process indicators (EER, COP, efficiency)

- Real-time representation of the measured and calculated quantities in tabular form, chart and log p h diagram

   - Cloud-based remote monitoring

   - Energy management EnEV §12

1.Place Deutscher Kältepreis Intelligent Monitoring

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