



Archimede 2017

Presentation new release software
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Condenser Series

1. TKSMART (TMCH)

As per our target to make available on TKSmart series more calculation functions and accessories, the following options have been implemented:

1.1 CALCULATION POSSIBILITY OF ROUND TUBE UNITS WITH THE FOLLOWING REFRIGERANTS (R22-R404A-R507-R410A-R134A)

- It allows an accurate units calculation for a wide refrigerant range.

1.2 CALCULATION POSSIBILITY WITH ELECTRONIC FANS EC D500-D560 3PH-400V

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D500-D630 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/ star EC)

Considering point 1.2 the spectrum of computable points are 60 with capacity range from 14 to 105 kW (data: R404A, condensation temperature 40°C, ambient temperature 25°C).

1.3 POSSIBILITY TO SELECT SPECIFIC ELECTRICAL ACCESSORIES

- It allows to select different features on electrical box with switch W(I) for AC fans.
- It allows to select different features on electrical box with switch WEC (I) and with optional specific EcBasic controller for EC fans.

2. MODULAR MICROCHANNEL UNIT (JMCH-JMKH) NEW

In order to increase the range of units that can be select, the 2XD800 V-type modular series has been defined. This series is particularly suitable for application with low footprint, coil’s replicability, low refrigerant charge and and optimization of refrigerant distribution on shorter units, easy handling and assembly of elements with reduced plant costs. Below are the main options available:

2.1 CALCULATION POSSIBILITY OF ROUND TUBE UNITS WITH THE FOLLOWING REFRIGERANTS (R22-R404A-R507-R410A-R134A)

- It allows an accurate calculation of the units for a wide refrigerant range.

2.2 SELECTION POSSIBILITY OF BOTH CONFIGURATIONS TK25 (JMCH) AND TK32 (JMKH)

- It allows best calculation for both high performance /dT and low performance/dT with the best €/kW for the requested needs.

2.3 POSSIBILITY TO SELECT FROM 1 TO 3 MODULE (THAT COULD BE REPLICABLE ALSO FOR MULTIPLE MODULES)

- It allow to select V-type modular unit from 1 to 3 pcs. (with its mechanical couplings of the frames) in order to calculate instantly the required plant capacity.

2.4 SELECTION POSSIBILITY WITH EC D800 3PH-400V ELECTRONIC FANS

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D800 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/ star EC).

Considering point 2.2, 2.3, 2.4 the spectrum of computable points are 48 with capacity range from 118 to 458kW (data: R404A, condensation temperature 40°C, ambient temperature 25°C).

2.5 POSSIBILITY TO SELECT SPECIFIC ELECTRICAL ACCESSORIES

- It allows to select wiring “E” accessory for AC fans.
- It allows to select wiring “E” accessory for AC fans.
- It allows to select Axitop accessory for EC fans.

3. ROUND TUBE CONDENSERS

In order to make units more suitable to different needs, the unit options have been implemented with the following features:

3.1 CALCULATION POSSIBILITY OF TABLE-TYPE UNITS WITH D910 FANS. NEW

- For units with AC fans: it allows, with equal footprint and number of fans, a capacity incrementation of 20% in high noise models and of 10% in residential models.
- For units with EC fans: it allows an increase of available capacity spectrum with more efficiency or less consumptions with reduced overall dimension.

3.2 POSSIBILITY OF SELECTION OF CIRCUIT REGULATION FOR TABLE TYPE AC DOUBLE ROW

- It allows to select on AC fans the control panel option (2XQ) and controller (2XR) for each fan’s row.
- It is possible, during unit selection, to calculate the double circuit (total capacity 50%-50%): for our model Jumbo, Mini Jumbo and Table Type single row will persist the solution of single control panel and regulator (where the absorption allows) with a pressure probe on each circuit.

3.3 SELECTION POSSIBILITY OF STACKABLE PACKAGE FOR UNITS WITH 1-2 D500-D630 FANS

- It allows to optimize the transport for units with 1-2 D500-D630 fans (also when the units are equipped with accessories)

3.4 POSSIBILITY TO SELECT EC SPECIFIC ELECTRICAL BOX FOR UNIT WITH D500 FANS

- It allows the selection of the W1E-W3E-W4E range with addition of dedicated control panels (W4E) suitable for low cost solutions and reduced electronic equipment dimensions.

3.5 POSSIBILITY TO SELECT AXITOP FOR EC FANS

- It allows to reduce the traditional EC fans noise up to 3dB[A] (the reducers will be supplied loose in the specific package and can be installed in units already started to optimize the noise (up to 3dB[A]), to increase the performances (ut to 5%) and to reduce the energy consumptions (up to 20%).

3.6 POSSIBILITY TO SELECT UNITS WITH COATED FINS FOR THE AMMONIA SERIES

- It allows to select units with double layer or prepainted fins to offer solutions particularly suitable for industrial and corrosive applications.

3.7 POSSIBILITY TO SELECT AN UPDATED REFRIGERANTS LIST

- Added the selection possibility of refrigerants as R290, R401A, R402A, R407A, R408A, R409A, R502, R407F, (R723 -ammonia in the configuration with stainless steel tubes).

3.8 POSSIBILITY TO SELECT AN UPDATED REFRIGERANTS LIST

- Added the selection possibility of refrigerants as R290, R401A, R402A, R407A, R408A, R409A, R502, R407F, (R723 -ammonia in the configuration with stainless steel tubes).

Dry Coolers series

4. ROUND TUBE DRY COOLERS

In order to make units more suitable to different needs, the options of the units have been increased with the following implementations:

4.1 POSSIBILITY TO SELECT SPECIFIC SPEED CONTROLLESR AND ELECTRICAL PANELS FOR 18-20 FANS SUPERJUMBO

- It allows to select only on AC fans option for dry coolers with 18/20 fans, control pane option (2XQ) and controller (2XR) for each fan’s row.

4.2 POSSIBILITY TO SELECT STACKABLE PACKAGES FOR D500-D630 1-2 FANS UNITS

- It allows to optimize the transport of D500-D630 1-2 fans units (also when the units are equipped with accessories).

4.3 POSSIBILITY TO SELECT SPECIFIC EC PANELS FOR D500 FANS UNITS

- It allow to select only W1E-W3E-W4E range with added specific panel W4E series, suitable for low cost and reduced electrical equipment dimensions solutions.

4.4 POSSIBILITY TO SELECT AXITOP REDUCTORS FOR EC FANS

- it allows to select AXITOP accessory, which allows to reduce up to 3dB[A] the traditional EC fan noise (the reducers will be supply loose in specific package and can be installed also in units already started to optimize the noise (up to 3dB[A]), to increase the performances (ut to 5%) and to reduce the energy consumptions (up to 20%).

4.5 TECHNICAL SPECIFICATION UPDATE OF ADIABATIC SYSTEMS WATER QUALITY

- Following the hygiene certification of the WFS (wet fin system), the technical parameters of the water of high and low pressure adiabatic systems have been updated.

Unit Coolers series

5. DIRECT EXPANTION UNIT COOLERS

In order to make units more suitable to different needs, the options of the units have been increased with the following implementations:

5.1 POSSIBILITY TO SELECT INDUSTRIAL UNIT COOLER IHT/ILT/IMT SERIES WITH EC D500-D630 3PH-400V FANS

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D500-D630 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/ star EC).

5.2 POSSIBILITY TO SELECT INDUSTRIAL DUAL FLOW UNIT COOLER DFX SERIES WITH EC D500-D630 3PH-400V FANS

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D500-D630 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/ star EC).

5.3 POSSIBILITY TO SELECT INDUSTRIAL UNIT COOLER IHT/ILT/IMT SERIES WITH AC D500-560-630 3PH-400V 6 POLES FANS

- It allows the calculation for low noise applications, increasing the spectrum of D500-D560-D630 available calculation points from 2 points for units (AC delta/star) to 4 points for units (AC 4p delta/AC 6p delta).

5.4 POSSIBILITY TO SELECT INDUSTRIAL DUAL FLOW UNIT COOLER DFX SERIES WITH AC D500-630 3PH-400V 6 POLES FANS

- It allows the calculation for low noise applications, increasing the spectrum of D500-D560-D630 available calculation points from 2 points for units (AC delta/star) to 4 points for units (AC 4p delta/AC 6p delta).

5.5 POSSIBILITY TO SELEC FRUIT COOLER FC SERIES NEW

- It allow to select a specific series of unit cooler for preservation fruits cold rooms. This series is equipped with blowing through fans, deflector to optimize the air distribution on the products, 6mm fin spacing, painted casing and electrical defrosting already default in base series.

5.6 POSSIBILITY TO SELECT AN UPDATED REFRIGERANTS LIST

- Added the selection possibility of refrigerants as R290, R401A, R402A, R407A, R408A, R409A, R502, R407F, (R723 -ammonia in the configuration with stainless steel tubes).

5.7 POSSIBILITY TO SELECT UNITS WITH COATED FINS FOR UNIT COOLERS

- Added the possibility of coated fins calculation for all unit coolers with fin space lower than 9mm (industrial and commercial unit coolers).

6. BRINE UNIT COOLERS

In order to make units more suitable to different needs, the options of the units have been increased with the following implementations:

6.1 POSSIBILITY TO SELECT INDUSTRIAL UNIT COOLER BHT/BFT/BMT SERIES WITH EC D500-D630 3PH-400V FANS

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D500-D630 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/ star EC).

6.2 POSSIBILITY TO SELECT INDUSTRIAL DUAL FLOW UNIT COOLER DFB SERIES WITH EC D500-D630 3PH-400V FANS

- It allows the calculation for high energy efficiency applications, increasing the spectrum of D500-D630 available calculation points from 2 point for units (AC delta/star) to 8 point for units (AC delta/star EC).

6.3 POSSIBILITY TO SELECT CUBIC UNIT COOLER BHT/BFT/BMT SERIES WITH AC D500-560-630 3PH-400V 6 POLES FANS

- It allows the calculation for low noise applications, increasing the spectrum of D500-D560-D630 available calculation points from 2 points for units (AC delta/star) to 4 points for units (AC 4p delta/AC 6p delta)

6.4 POSSIBILITY TO SELECT INDUSTRIAL DUAL FLOW UNIT COOLER DFB SERIES WITH AC D500-630 3PH-400V 6 POLES FANS

- It allows the calculation for low noise applications, increasing the spectrum of D500-D560-D630 available calculation points from 2 points for units (AC delta/star) to 4 points for units (AC 4p delta/AC 6p delta).

6.5 POSSIBILITY TO SELECT FRUIT COOLER FC SERIES **NEW**

- It allow to select a specific series of unit cooler for preservation fruits cold rooms. This series is equipped with blowing through fans, deflector to optimize the air distribution on the products, 6mm fin spacing, painted casing and electrical defrosting already default in base series.

6.6 POSSIBILITY TO SELECT BRINE UNIT COOLER WITH 2-4 D800 FANS **NEW**

- It allows to select a specific series for high capacity application. This series is equipped with D800 (AC and EC) fans, 4,5/6,0/8,0mm fin spacing, painted casing.

6.7 POSSIBILITY TO SELECT BRINE UNIT COOLER WITH 2-4 D800 FANS

- Added the possibility of protected fins calculation for all unit coolers with fin space lower than 9mm(industrial and commercial unit coolers).

7. NEW PRINT LAY-OUT

The print lay-out has been updated to make the unit data-sheet more user friendly:

7.1 PAGE 1: THERMODYNAMIC AND DIMENSIONAL DATA

- The customer can find the necessary calculation and dimensional data.
- The customer can find some notes that guide him in identifying the type of selected product and the inserted peculiarities.
- The customer can find the total net and gross prices.

7.2 PAGE 2: ACCESSORIES LIST

- The customer can find the accessories list with gross and net prices for each line and with inserted peculiarities.
- The customer can find some notes that guide him to some warnings (limit value of the selection on fan temperature, fluid side pressure drops, etc.).
- The customer can find total net and gross prices.

7.3 PAGE 3: NUMBERED NOTE LIST OF PAGE 1 DATA

- The customer can find a numbered and descriptive notes list that defines the parameters of technical data page.

7.4 PAGE 4: ASSEMBLY DRAWING

- The customer can find an assembly drawing and can consider it as preliminary drawing (when the unit is without accessories).

7.5 PAGE 5: ADIABATIC DATA-SHEET (ONLY WHEN ADIABATIC SYSTEM IS SELECTED)

- The customer can find the nozzle configuration; nozzle code e high pressure pump code with its kW
- The customer can find the adiabatic system water quality requirement that must be respected with the concerning warnings.

In the print preview there are some printing options such as technical specifications printing of the unit, printing in word format and linking to the ThermoKey website.

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