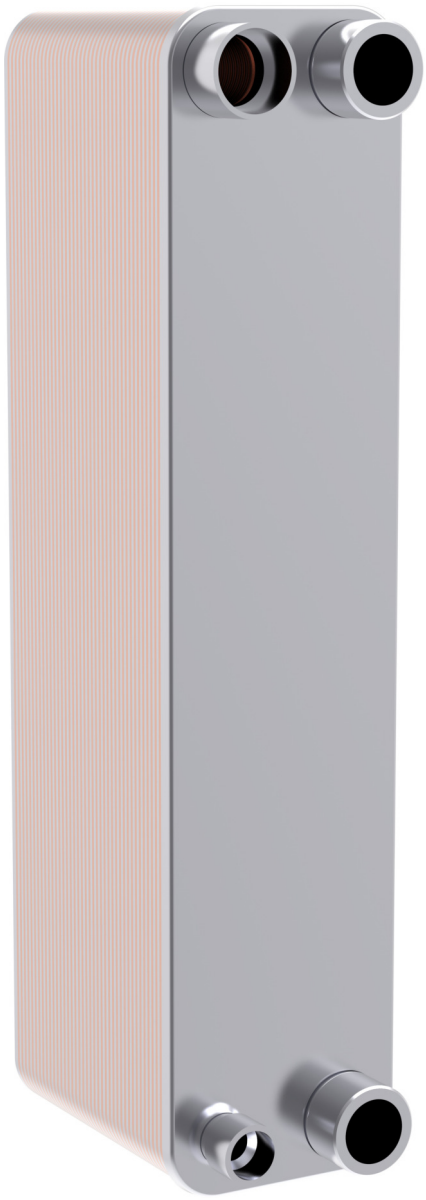
ENGINEERING TOMORROW

Data Sheet

Micro Plate Heat Exchanger Type **C62L-CX & H62L-CX**

For more efficient Chillers & Heat Pumps



The C62(L)-CX & H62(L)-CX are condensers with asymmetric design optimized for use in R410A/R32 chillers and heat pumps with capacities of 20-110 kW. The innovative Micro Plate technology and the asymmetric channel geometries, with different designs on the refrigerant and water sides, improve heat transfer, reduce the amount of material used and minimize pressure losses on the water side.

To meet demands for higher seasonal efficiency, the C62(L)-CX & H62(L)-CX is designed to work efficiently and increase comfort in modern buildings without increasing the carbon footprint. Helping water-cooled chillers perform more efficiently, it reduces both energy consumption and environmental impact. The low hold-up volume reduces the system refrigerant charge and offers valuable savings.

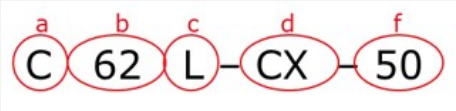
Features:

- Minimal refrigerant hold-up volume: Smaller refrigerant charge
- High heat transfer: For a more efficient chiller
- Minimal pressure losses on secondary side: Less pump power
- Smaller footprint: Enabling more compact chiller
- Reduced CO_2 footprint: Environmentally friendly with high heat transfer and minimal refrigerant charge

Portfolio overview

H62L-CX: High efficiency condenser optimized for R410A, and other high-density refrigerants, heat pump application
H62-CX: High efficiency condenser for medium density refrigerants, heat pump application
C62L-CX: High efficiency condenser optimized for R410A, and other high-density refrigerants, chiller application
C62-CX: High efficiency condenser for medium density refrigerants, chiller application

Table 1: Designation



a	d	e
Applications **C:** chiller **D:** universal **H:** heat pump **HDW:** heat pump double wall	**Specific duty** **E**= evaporator **C**= condenser **Plate design** Omit **L**: L-type **M**: M-type **H**: H-type **W**: W-type **X**: Asymmetric **Z**: Z flow **Configuration** Omit: single **D**: Dual circuit **U**: Mixing chamber	**Distributor version** Omit **B** **F** ….. **Plate stacking sequence** Omit: a-b-a… **R**: b-a-b…
b **Platform*** 22,30,55,62,118… *heat exchanging surface per plate 1/1000 m^2		
c **Pressure Service** Omit: 30bar **L**: 45/49bar		**f** **Number of plates**** **Rule: -Single: even number -Dual: even number not multiple of 4

Application

The C62(L)-CX & H62(L)-CX are condensers applicable in different applications like heat pump and chiller systems.
The C62(L)-CX & H62(L)-CX can operate also in evaporating mode and or de-frost mode, so it can be applicable in reversable systems.

Media

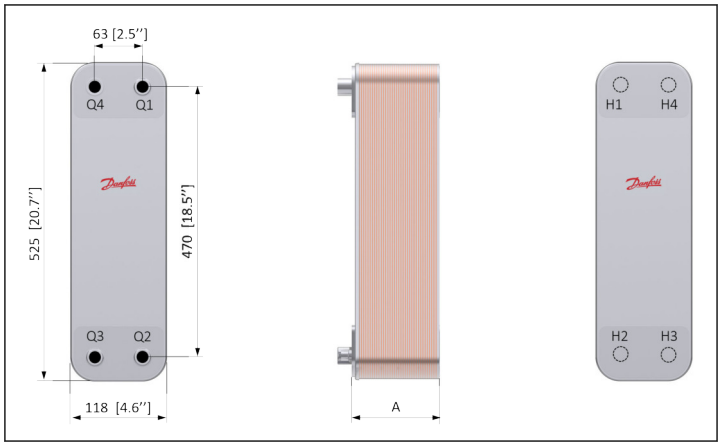
Refrigerants

R410A, R452B, R454B, R32, R407C, R290
For other refrigerants please contact your Danfoss Sales representative.

Product specification

Dimensions

Figure 1: Dimensions



A:
C62L-CX, H62L-CX: 11.5 + 1.74 x N [0.45 + 0.07 x N]
C62-CX, H62-CX: 9.5 + 1.74 x N [0.37 + 0.07 x N]
N: Number of Plate

Operating conditions

Preconditions:
N = number of plates
Max number of plates: 200

Pressure and temperature data*:
Min. working temperature: -196 °C (-320 °F)
Max. working temperature: 200 °C (390 °F)

Max. working pressure:
C62L-CX: 45bar (653psi)
H62L-CX: PED: 48bar (696psi) / UL: 45bar (653psi)
C62-CX, H62-CX: 30bar (435psi)
*For details, refer to the Third party approvals chapter.

Weight*

C62L-CX, H62L-CX: 2.92 + 0.138 x N [kg] / 6.45 + 0.3 x N [lb]
C62-CX, H62-CX: 2.45 + 0.138 x N [kg] / 5.41+0.3 x N [lb]
N: Number of Plate
*Excluding connections and accessories

Material specification

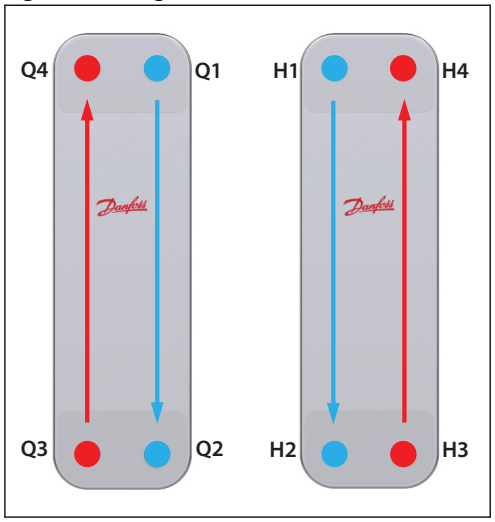
Table 2: Standard materials

Item	Material	Specification
Cover plates	Stainless steel	AISI 304L
Plates	Stainless steel	AISI 316L
Connections	Stainless steel	AISI 304L
Brazing filler	Pure copper	Cu

Other material combinations are available on request. Please contact your Danfoss sales representative for more information.

Configuration flow

Figure 2: Configuration flow



Parallel flow:
Q1 - Q2 [H1 - H2]: brine/secondary side
Q3 - Q4 [H3 - H4]: refrigerant/primary side

Hold up volume

Q1 - Q2 (l): 0.092 x N/2 [l]
Q3 - Q4 (l): 0.07 x (N-2)/2 [l]
N: Number of Plate

Ordering

Global or local standard code numbers can be accessed via Store.Danfoss.com on local subsites, with full set of technical data as well as relevant assets such as documentation and drawings. Since the portfolio may contain different types depending on country, this document contains only a summarized list of standard code numbers with a few data relevant for the product selection.

Configuring and calculating products

The C62(L)-CX & H62(L)-CX can be easily customized based on the application needs; model size can be evaluated using Hexact software

For details, product configuration and code creation please contact your Danfoss Sales representative

Mechanical connections

Table 3: Mechanical connections

Circuits	Connection type options	Connection size option [in.]
Q1 - Q2 (water-brine side)	BSP Gas male	½, ¾, 1, 1 ¼, 1 ½
	BSP Gas female	½, ¾, 1
	DIN R male	1, 1 ¼, 1 ½
	NPT	¾, 1, 1 ¼
	Victaulic	1 ¼, 1 ½
Q3 - Q4 (Refrigerant side)	Soldering	⅜, ½, ⅝, ¾, ⅞, 1 ⅛, 1 ⅜

Accessories and spare parts

MPHE products are not serviceable, i.e. cannot be taken apart and repaired, and there are no spare parts program. As for accessories, stud bolts, feet on front and/or back cover plates for mounting support and handling are available upon request.

Table 4: Stud bolts

Stud bolt position	Bolt sizes
327 mm, middle 140 x 100 mm, middle	M8x20mm M8x25mm M8x30mm

Contact your Danfoss sales representative for further information.

Certificates, declarations, and approvals

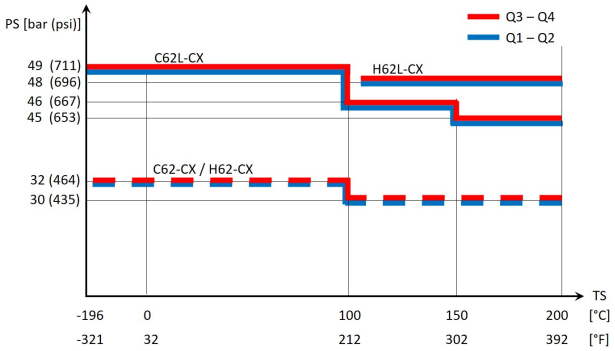
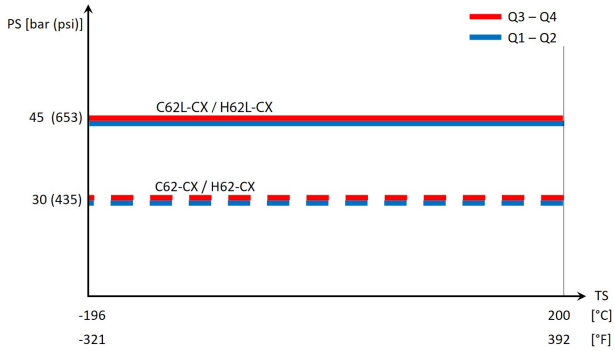
The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

Some approvals may change over time. You can check the most current status at danfoss.com or contact your local Danfoss representative if you have any questions.

Third party approvals

All MPHE and BPHE are certified to European Pressure Equipment Directive (PED) and are approved by Underwriters Laboratories (UL).

Table 5: Third party approvals

Pressure Equipment Directive (PED)	Underwriters Laboratory Inc (UL)
	

Other certifications are available upon request: Kraia, EAC, UA, AS; for others and more details please contact your local Danfoss representative.

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