Micro Plate Heat Exchanger

For increased heat pump business

H22L-C Heat pump Condenser

40% charge compared with a traditional BPHE. The ideal solution to meet the world’s climate and energy aspirations.
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Introduction
The H22L-C is a condenser optimised for R410A in small high-efficiency residential heat pumps with capacities between 2-10 kW. The heat exchanger features innovative Micro Plate technology that improves heat transfer and reduces the amount of material used.
To meet demands for higher COPs in heat pumps, the H22L-C is designed to work efficiently with close temperature approaches. The H22L-C is approved to 45 bar to cope with high water temperature applications such as the renovation market.
The design has been verified with regards to the defrost operation cycle. The low hold-up volume reduces the refrigerant charge and offers valuable savings.

Key features
- Minimal hold-up volume: Less refrigerant charge
- High heat transfer: For a more efficient heat pump
- Smaller footprint: Enabling more compact heat pumps
- Reduced CO\textsubscript{2} footprint: Environmentally friendly with high heat transfer and minimal refrigerant charge.

Technical data

<table>
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<th>n ~ number of plates</th>
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<td>Min. working temperature: -196 °C</td>
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<tr>
<td>Max. working temperature: 200 °C</td>
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<td>Max. working pressure: 48 bar</td>
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<td>Hold-up volume Q1-Q2/ Q3-Q4 (l): 0.021x(n-2)/2</td>
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<td>Weight (kg): 0.77+0.045xn</td>
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<td>Max. no. of plates: 60</td>
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Standard materials
- Cover plates: AISI 304
- Plates: AISI 316
- Brazing filler: Pure copper
- Other material combinations can be provided upon request. Please contact your Danfoss sales representative for more information.

Standard connections
- Q1-Q2 (Brine side): External threaded G 3/4"
- Q3 (Refrigerant outlet): soldering 1/4", 3/8" or 1/2"
- Q4 (Refrigerant inlet): soldering 1/2", 3/4" or 7/8"

Third-party approvals
- Europe: Pressure Equipment Directive (PED)
- America: Underwriters Laboratory Inc (UL)

Accessories
- Stud bolts on front and/or back plates for mounting support are available upon request. Please contact your Danfoss sales representative for further information.

Corresponding evaporator
A corresponding Micro Plate heat exchanger for evaporator duties (H22L-E) is also available, fully tested and ready for heat pump applications.

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