Micro Plate Heat Exchanger

For increased heat pump business

H22-C Heat pump Condenser

40% charge compared with a traditional BPHE. The ideal solution to meet the world’s climate and energy spirations.
H22-C Heat pump Condenser
Micro Plate Heat Exchanger

Introduction
The H22-C is a condenser optimised for R407C 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 H22-C is designed to work efficiently with close temperature approaches. 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 CO2 footprint: Environmentally friendly with high heat transfer and minimal refrigerant charge.

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = number of plates</td>
<td>Max. no. of plates: 60</td>
</tr>
<tr>
<td>Min. working temperature</td>
<td>-196 °C</td>
</tr>
<tr>
<td>Max. working temperature</td>
<td>200 °C</td>
</tr>
<tr>
<td>Max. working pressure</td>
<td>30 bar</td>
</tr>
<tr>
<td>Hold-up volume</td>
<td>Q1-Q2/Q3-Q4 (l): 0.021×n/2 / 0.021×(n-2)/2</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.58+0.045xn</td>
</tr>
</tbody>
</table>

Standard materials
- Cover plates: AISI 304
- Plates: AISI 316
- Connections: AISI 304
- Brazing filler: Pure copper
- Other material combinations can be provided upon request. Please contact your Danfoss sales representative for more information.

Standard connections
The standard connections below are optimised for this product as a condenser in heat pump system. For other connections, please contact your Danfoss representative.
- Q3 (Refrigerant outlet): soldering 1/4", 3/8" or 1/2"
- Q4 (Refrigerant inlet): soldering 1/2", 3/4" or 7/8"
- Q1 and Q2 (Water side): External threaded G 3/4"

Third-party approvals
Europe: Pressure Equipment Directive (PED). America: Underwriters Laboratory Inc (UL). The third-party approvals stated are standard for all our products. For details of other existing approvals or to discuss how we can meet your local needs, please contact your Danfoss representative.

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

Corresponding evaporator
A corresponding Micro Plate heat exchanger for evaporator duties (H22-E) is also available, fully tested and ready for heat pump applications.