Micro Plate Heat Exchanger

For increased chiller profits

C22-E Evaporator

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 C22-E is an evaporator optimised for R407C for use in high-efficiency chillers with capacities of 3-20 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 seasonal efficiency, the C22-E is designed to work efficiently and increase comfort in modern buildings without increasing the carbon footprint. Helping chillers perform more efficiently, it reduces both energy costs and environmental impact. The low hold-up volume reduces the system refrigerant charge and offers valuable savings.

Key features
- Minimal hold-up volume: Less refrigerant charge.
- Reduced pressure drop: For more efficient chillers.
- Smaller footprint: Enabling more compact chillers.
- Reduced CO₂ footprint: Environmentally friendly with high heat transfer and minimal refrigerant charge.

Technical data
\[ n = \text{number of plates} \]
- Min. working temperature: -196°C
- Max. working temperature: 200°C
- Max. working pressure: 30 bar
- Hold-up volume: \( Q_1-Q_2 / Q_3-Q_4 \) (l): \( 0.021 \times n/2 / 0.021 \times (n-2)/2 \)
- Weight (kg): \( 0.58 + 0.045 \times n \)
- Max. no. of plates: 60

Standard materials
- Cover plates: AISI 304
- Connections: AISI 304
- Brazing filler: Pure copper

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

Standard connections
Standard connections as per below are optimised for this product as condenser in chiller system. For other connections, please contact your Danfoss representative.
- Q3 (Refrigerant outlet): soldering 1/4” or 3/8”
- Q4 (Refrigerant inlet): soldering 1/2” or 5/8”
- Q1-Q2 (Water side): External threaded G 3/4”

Third part 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 cover plates for mounting support are available upon request. Contact your Danfoss sales representative for further information.

Accessibility
We will help you set up a logistics solution that will meet your needs.

Corresponding condensers
A corresponding Micro Plate heat exchanger for condenser duties (C22-C) is also available.

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