H22-E Heat pump Condenser
For increased heat pump business

Innovative | Optimised | Low hold-up volume | High heat transfer | Compact | Rapid delivery

40% Reduction in refrigerant
Charge compared with a traditional BPHE. This new condenser is the ideal solution to help you meet the world’s climate and energy aspirations.

Save $35 Per heat exchanger
On refrigerant because of the H22-E’s low hold-up volume.
H22-E

INTRODUCTION
Evaporator optimised for R407C in small high-efficiency residential ground source heat pumps with capacities between 2-8 kW (7-27 kBTU/hr). 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-E is designed to work efficiently with close temperature approaches, while a low pressure drop on the brine side reduces the pump power and keeps the overall COP high.

The low hold-up volume reduces the refrigerant charge and offers valuable savings.

KEY FEATURES
- Minimal hold-up volume: Less refrigerant charge
- Reduced pressure drop: 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
\[ n = \text{NUMBER OF PLATES} \]
- Min. working temperature: -196 °C (-320 °F)
- Max. working temperature: 200 °C (392 °F)
- Max. working pressure: 30 bar (435 psi)
- Hold-up volume: \( Q1=Q2/3 = Q3-Q4 = 0.021x(n)/2 / 0.021x(n-2)/2 \) (ft³): \( Q1=Q2/3 = Q3-Q4 = 0.001x(n)/2 / 0.001x(n-2)/2 \)
- Weight: 0.58 kg+0.045xn (1.28 lb+0.10xn)
- Max. no. of plates: 60

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 an evaporator in heat pump systems. For other connections, please contact your Danfoss representative.
- Q3 (Refrigerant inlet): soldering 1/4", 3/8" or 1/2"
- Q4 (Refrigerant outlet): soldering 1/2", 3/4" or 7/8"
- Q1-Q2 (Brine side): External threaded 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.

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 (H22-C) is also available, fully tested and ready for heat pump applications.

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