Data sheet

Micro Plate Heat Exchanger

Power savings

C55-EU Evaporator

30%

Lower hold-up volume

Significant reduction in refrigerant and smaller CO₂ footprint, compared with a traditional BPHE
C55-EU Evaporator
Micro Plate Heat Exchanger

Introduction
The C55-EU is mainly developed as evaporator for high efficiency chillers using R407C/R404A/R134a or other low pressure refrigerants and covering cooling capacities 10 to 65 kW (3-18 R), but it can also be used as economizer. Equipped with Power Bulges - an innovative distribution system - the evaporators enables a perfect refrigerant distribution, thereby improving heat transfer, minimizing pressure drop and being less sensitive to inlet connection and pipe size. It is based on the well proven MPHE technology, meaning minimal refrigerant charge and less weight for both environmental and financial savings.

Key features
- Low hold up volume refrigerant side; less refrigerant charge in the system
- Lower weight; less sensitive to raw material price fluctuations and reduced CO₂ footprint
- Unique refrigerant distribution system, Power Bulges;
- Less sensitivity to inlet connection and pipe size
- Low pressure drop on refrigerant side

Technical data
\[ n = \text{number of plates} \]
max. No. of plates: 150

<table>
<thead>
<tr>
<th>Model</th>
<th>Min/Max. working temperature</th>
<th>Max. working pressure</th>
<th>Hold-up volume ( \text{Q1-Q2/ Q3-Q4} )</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>C55-EU</td>
<td>(-196 , ^\circ C / 200 , ^\circ C)</td>
<td>30 bar</td>
<td>((\text{l}) \cdot 0.082 \times n/2 / 0.07 \times (n-2)/2)</td>
<td>2.57kg+0.135xn</td>
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<tr>
<td></td>
<td>(-320 , ^\circ F / 390 , ^\circ F)</td>
<td>435 psi</td>
<td>((\text{ft}^3) \cdot 0.003 \times n/2 / 0.002 \times (n-2)/2)</td>
<td>5.67lb+0.30xn</td>
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Standard materials
- Cover plates: AISI 304L
- Plates: AISI 316L
- Connections: AISI 304L
- Brazing filler: Pure copper

Connections
- Primary side/ Refrigerant side:
  - Inlet/Q3/H3: Soldering 3/8”, 1/2”, 5/8”, 7/8”
  - Outlet/Q4/H4: Soldering 5/8”, 7/8”, 1”, 1 1/8”, 1 3/8”
- Secondary side/ Water side/Q1/Q2/H1/H2:
  - External thread 1”, 1 1/4”
  - Soldering 1”, 1-1/8”, 1 3/8”

For other connections, 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.