

Fact sheet

C117L-EZD Evaporator Micro Plate Heat Exchanger

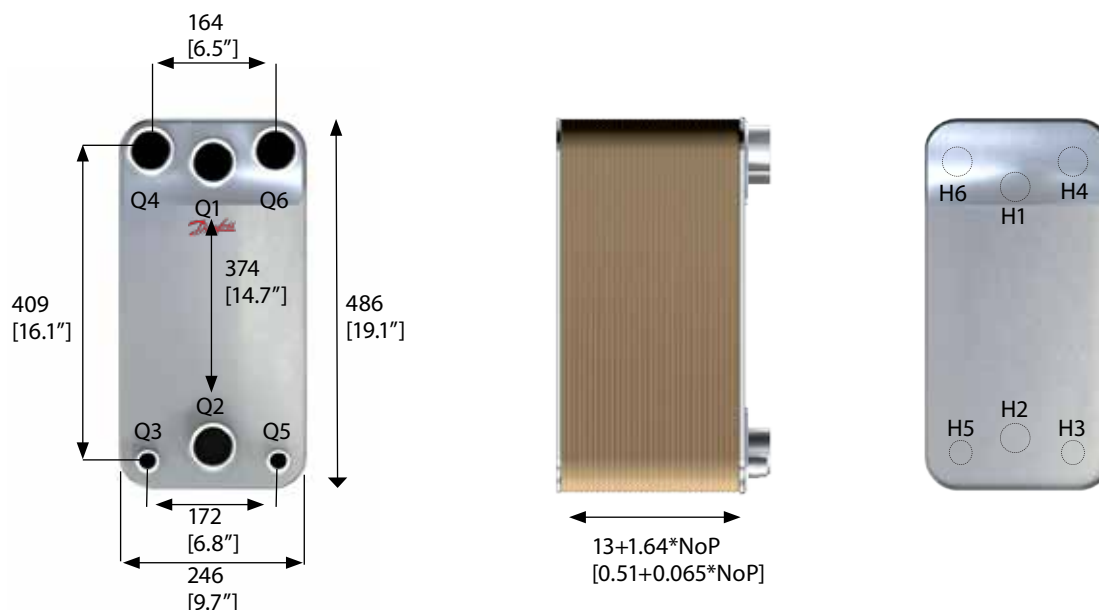


21%

lower hold-up
volume
enables significant
reduction in
refrigerant charge

C117L-EZD Evaporator

Micro Plate Heat Exchanger (MPHE)



INTRODUCTION

The C117L-EZD is an evaporator optimized for R410A for use in high-efficiency chillers with capacities of 70-250 kW, and standard efficiency chillers with capacities of 70-300 kW. The Z-pattern channel plate technology pushes the performance of heat exchangers to the limits by fully mixing the liquid and gas refrigerant through a "zigzag" flow, which increases the heat transfer coefficient. At the same time, inheriting from the dimple plate pattern of the previous generation of MPHE, C117L-EZD reduces the water side pressure drop and the amount of material used. In the reversible mode of the chiller as a condenser, C117L-EZD also has outstanding performance. To meet demands for higher seasonal efficiency, the C117L-EZD is designed to work efficiently and increase comfort in modern commercial 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

- Improved heat transfer - equals higher efficiency chillers
- Reduced water side pressure drop - equals higher efficiency chillers
- Minimal hold-up volume - equals less refrigerant charge
- Smaller footprint - enables more compact chillers
- High heat transfer and minimal refrigerant charge - equals a reduced CO2 footprint

TECHNICAL DATA

n = NUMBER OF PLATES

Min. working temperature: -196°C
 Max. working temperature: 200°C
 Max. working pressure: 45 bar (refrigerant side) / 25 bar (water side)*
 Hold-up volume: Q1-Q2 (l): 0.163xn/2/Q3-Q4 & Q5-Q6 (l): 0.128(n-2)/4
 Weight (kg): 6.15+0.27xn
 Max. no. of plates: 250
 * A lower pressure version (30 bar) also available

STANDARD MATERIALS

Cover plates: AISI 304L
 Connections: AISI 304L
 Plates: AISI 316L
 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 below are optimized for this product as an evaporator in chiller systems. For other connections, please contact your Danfoss representative, (Internal threaded, R thread (BSPT), NPT and Victaulic are also available).

Q3-Q5 (Refrigerant inlet): soldering 3/8", 1/2", 5/8", 3/4", 7/8", 1" or 1 1/8"
 Q4-Q6 (Refrigerant outlet): soldering 1/2", 5/8", 3/4", 7/8", 1 1/8", 1 3/8", 1 1/2", 2" or 2 1/2"
 Q1-Q2 (Water side): External threaded G 1/2", G 3/4", G 1", G 1 1/4", G 1 1/2", 2" or 2 1/2"



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, feet and hooks on front and/or back cover plates for mounting support and handling are available upon request. Contact your Danfoss sales representative for further information.