

Fact sheet

C12L-EZ Economizer and Evaporator Micro Plate Heat Exchanger

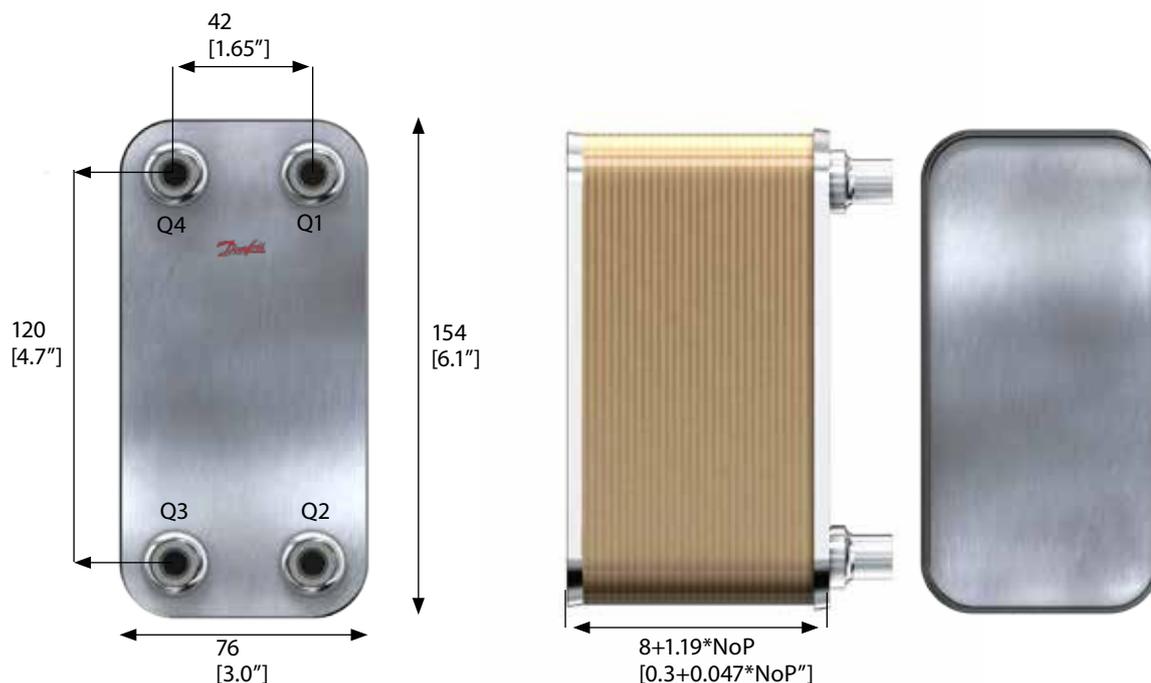


40%

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C12L-EZ Economizer and Evaporator

Micro Plate Heat Exchanger (MPHE)



INTRODUCTION

The C12L-EZ is an economizer optimized for R410A for use in VRF, heat pump and bus A/C etc., and also can be used as evaporator for chiller with a capacity under 5.5KW. Inspired by fish scales, 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 by 40% compared with traditional fishbone design at the same evaporating temperature. At the same time, inheriting from the dimple features, C12L-EZ reduces the amount of material used. To meet demands for higher seasonal efficiency, the C12L-EZ is designed to work efficiently and increase comfort in modern buildings without increasing the carbon footprint. Helping A/C units 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
- Minimal hold-up volume - equals less refrigerant charge
- Smaller footprint - enables more compact size
- 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
 Hold-up volume: Q1-Q2/ Q3-Q4 (ml): $8.39 \times n / 2$ / $9.25 \times (n-2) / 2$
 Weight (kg): $0.28 + 0.023 \times n \text{NoP}$ Max. no. of plates: 60

STANDARD MATERIALS

Cover plates: AISI 304L
 Connections: AISI 304L
 Plates: AISI 316L/AISI 304L
 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 economizer in VRF systems. For other connections, please contact your Danfoss representative. (Internal threaded, R thread (BSPT), NPT and Victaulic are also available).

Q3 (Evaporating side inlet): Soldering 1/4", 3/8", 1/2", 5/8" and 3/4"
 Q4 (Evaporating side outlet): Soldering 1/4", 3/8", 1/2", 5/8" and 3/4"
 Q1-Q2 (Subcooling side): External threaded G 1/2" and 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 and feet 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.