



Brazed plate heat exchanger

BPHE B3-260C

For more efficient data centers

Description

The B3-260C is brazed plate heat exchanger with symmetric design optimized for use in big capacity CDUs in data center with capacities up to 1MW. Benefit from the advanced fishbone plate pattern that maximizes heat transfer and minimizes pressure drop, enhancing the overall efficiency of your cooling system.

B3-260C delivers superior heat transfer performance, specifically optimized for single-phase fluids with parallel flow. This design ensures data centers maintain peak operational efficiency during continuous operation.

Further engineered for high-efficiency Cooling Distribution Units (CDUs), the product features an extremely low Log Mean Temperature Difference (LMTD) a critical attribute for enhancing CDU energy efficiency and thermal management precision.

Features & benefits

- High heat transfer: For a more efficient CDU in Data Centers
- Minimal pressure losses: Less pump power
- Smaller footprint: Enabling more compact CDU
- Reduced CO₂ footprint: Environmentally friendly with high heat transfer and less material usage

Applications

B3-260C: High efficiency brazed plate heat exchanger optimized for CDU in Data Center.

Ordering

Product code numbers

Global or local standard code numbers can be accessed via Store.Danfoss.com on local subsites, with full set of technical data as well as relevant assets such as documentation and drawings. Since the portfolio may contain different types depending on country, this document contains only a summarized list of standard code numbers with a few data relevant for the product selection.

Configuring and calculating products

The B3-260C can be easily customized based on the application needs; model size can be evaluated using HEX Selector software. For details, product configuration and code creation please contact your Danfoss Sales representative.

Mechanical connections

Circuits	Connection type options	Connection size option [in.]
Q1 - Q2 - Q3 - Q4	G/R/NPT male thread	1", 2", 3", 4"
	G/R/NPT female thread	1", 2", 3", 3.5"
	Victaulic	1", 2", 3", 4
	Soldering	1", 2", 3", 4
	Tri-clamp	1", 2", 3", 4
	Compact flange	Max DN100 (opposite configuration)

Accessories code numbers

BPHE products are not serviceable, i.e. cannot be taken apart and repaired, and there is no spare parts program. As for accessories, stud bolts, feet on front and/or back cover plates for mounting support and handling are available upon request.

Table: Stud bolts

Stud bolt position	Bolt sizes
Located top and bottom for feet and lifting ring assembly	M10 x 30 mm

Contact your Danfoss sales representative for further information.

Overview

Product portfolio

Table: Designation

a	b	c	d	e
B3	260C	30	1.6	H
a Applications B3: Brazed – Copper B4: Brazed – Nickel	b Platform* 27, 30, 52, 95, 210, 260... *Heat exchanging surface per plate 1/1000 m ²	D Pressure value -MPa 1.0 1.6 2.0 3.0 4.5	e Plate design L: L-type M: M-type H: H-type W: W-type	
c Number of plates** **Rule: -Single: even number -Dual: even number not multiple of 4				

Media

Fluids

Water, ethylene glycol aqueous solution, propylene glycol aqueous solution, hydraulic oil. For other fluids please contact your Danfoss sales representative.

Product details

Materials

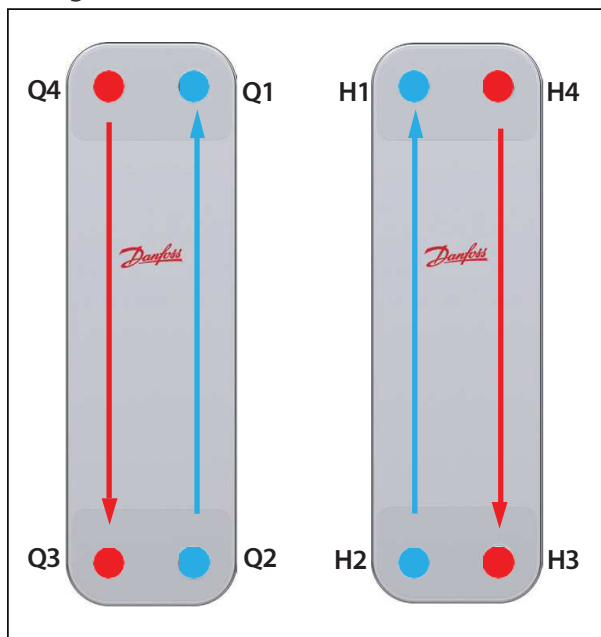
Material specification

Table: Standard materials

Item	Material	Specification
Cover plates	Stainless steel	AISI 304L
Plates	Stainless steel	AISI 316L
Connections	Stainless steel	AISI 304L
Brazing filler	Pure copper	Cu

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

Configuration flow



Q1 - Q2 [H1 - H2]: Secondary side

Q3 - Q4 [H3 - H4]: Primary side

Hold up volume

Q1 - Q2 (l): $0.365 \times N/2$ [l]

Q3 - Q4 (l): $0.365 \times (N-2)/2$ [l]

N: Number of Plate

Pressure and temperature data

Preconditions:

N = number of plates

Max number of plates: 360

Pressure and temperature data*:

Min. working temperature: -196 °C (-320 °F)

Max. working temperature: 200 °C (390 °F)

Max. working pressure:

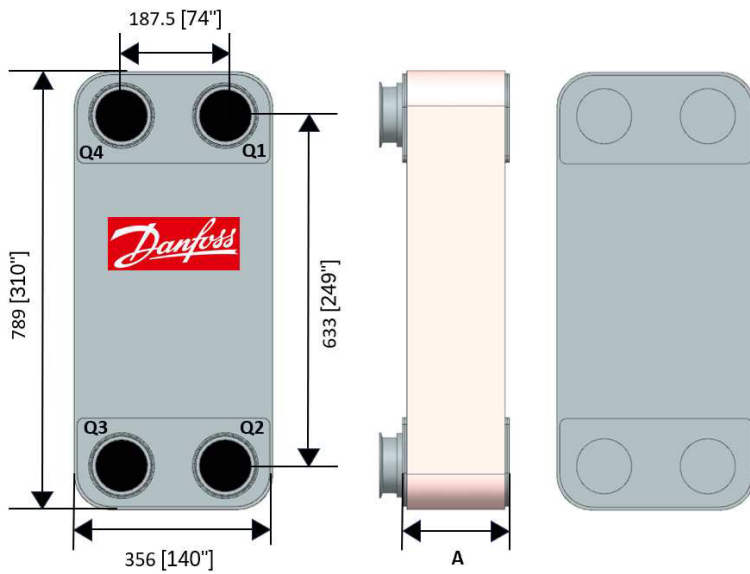
PED/UL Primary side: 16bar (232psi)

PED/UL Secondary side: 16bar (232psi)

*For details, refer to the Third-party approvals chapter.

Dimensions

Figure: Dimensions



A: $18 + 1.745 \times N$ [mm] / $0.71 + 0.069 \times N$ [inch]

N: Number of Plate

Weight*

B3-260C: $19.8 + 0.72 \times N$ [kg] / $43.6 + 1.59 \times N$ [lb]

N: Number of Plate

*Excluding connections and accessories

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

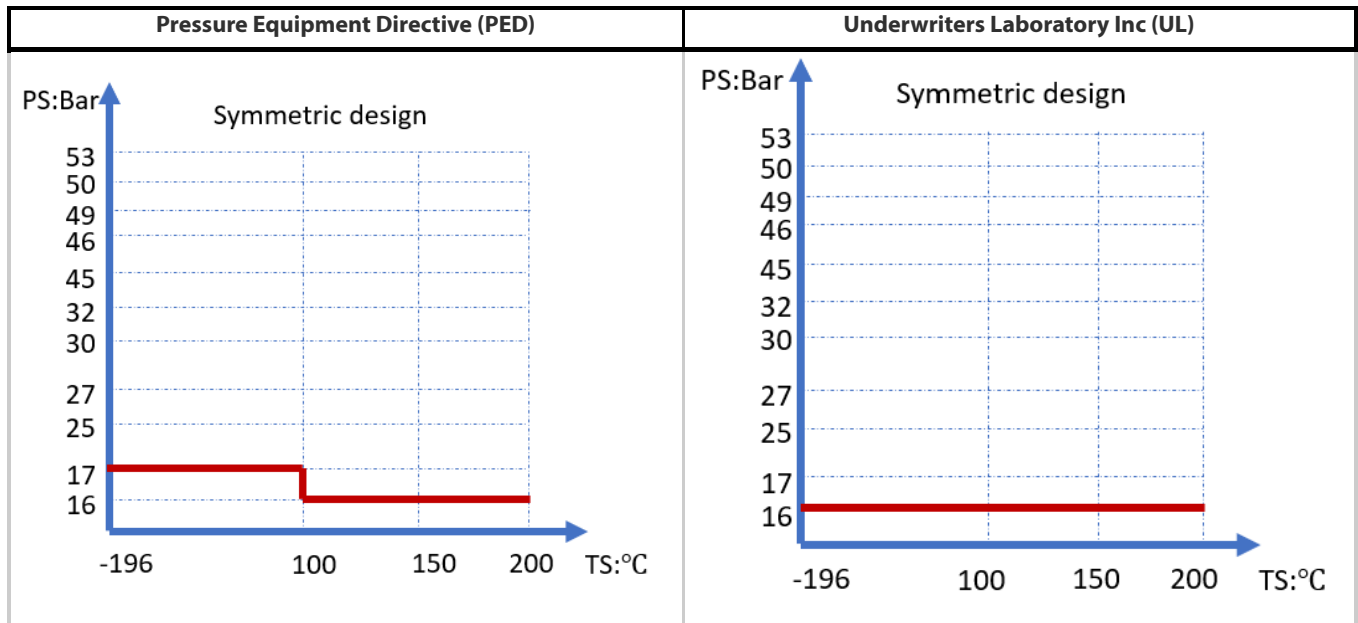
When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
EU Declaration	Danfoss EU BF202508en-0002.01	Danfoss	Pressure
Pressure Safety Certificate	BV CE-0062-PED-H-DMC 001-23-CHN-Rev.B	BV - Bureau Veritas	Pressure

Third party approvals

All MPHE and BPHE are certified to European Pressure Equipment Directive (PED) and are approved by Underwriters Laboratories (UL).

Table: Third party approvals



Other certifications are available upon request: Kraia, EAC, UA, AS; for others and more details please contact your local Danfoss representative.

Contact details

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Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.



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