

Data sheet

Micro plate heat exchanger (MPHE): XB52

Description



Micro Plate Heat Exchangers - a revolutionary technology from Danfoss. Characterized by their unique plate pattern, MPHEs enable heat to be transferred more efficient than any previous model of heat exchangers.

Benefits:

- Energy and cost savings
- Better heat transfer
- Lower pressure loss
- More flexible design
- Longer life time

more on:

districtenergy.danfoss.com (MPHE)

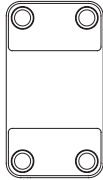
XB52 is copper brazed heat exchanger, designed and configured for District Heating, District Cooling and other Heating applications. Heat exchanger XB52 will be available in plate corrugation M. It will be available in 1-pass (with 4 connections) and 2-pass version (with 6 connections). Heat exchangers can be dimensioned in Danfoss calculation software "Hexact" which can be downloaded from hexact.danfoss.com.

Approval:

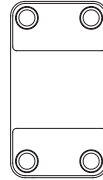
Pressure Equipment Directive (PED).

Ordering

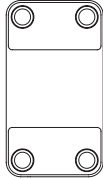
1-pass heat exchanger XB52 Cu

Picture	No. of plates, n	Connection	Code No.
	20	Ext. Thread G 2"	004H4520
	26		004H4521
	30		004H4522
	36		004H4523
	40		004H4524
	50		004H4525
	60		004H4526
	70		004H4527
	80		004H4528
	90		004H4529
	100		004H4530
	110		004H4531
	120		004H4532
	130		004H4533
	140		004H4534

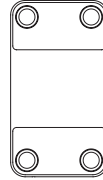
1-pass heat exchanger XB52 Cu+

Picture	No. of plates, n	Connection	Code No.
	20	Ext. Thread G 2"	079G1776
	26		079G1777
	30		079G1778
	36		079G1779
	40		079G1780
	50		079G1781
	60		079G1782
	70		079G1783
	80		079G1784
	90		079G1785
	100		079G1786
	110		079G1787
	120		079G1788
	130		079G1789
	140		079G1790

2-pass heat exchanger XB52 Cu

Picture	No. of plates, n	Connection	Code No.
	20/20	Ext. Thread G 2"	004H4540
	26/26		004H4541
	30/30		004H4542
	36/36		004H4543
	40/40		004H4544
	46/46		004H4545
	50/50		004H4546
	56/56		004H4547
	60/60		004H4548
	66/66		004H4549
	70/70		004H4550

2-pass heat exchanger XB52 Cu+

Picture	No. of plates, n	Connection	Code No.
	20/20	Ext. Thread G 2"	079G1791
	26/26		079G1792
	30/30		079G1793
	36/36		079G1794
	40/40		079G1795
	46/46		079G1796
	50/50		079G1797
	56/56		079G1798
	60/60		079G1799
	66/66		079G1800
	70/70		079G1801

Ordering (continued)

Accessories-Tailpieces

Picture	Description	Connection	Code No. ¹⁾
	Solder tailpieces	G 2" / 28mm	004B2910
		G 2" / 35mm	004B2911
		G 2" / 42mm	004B2912
	Weld-on tailpieces	G 2" / DN32	004B2907
		G 2" / DN40	004B2908
		G 2" / DN50	004B2909

¹⁾ One set contains 2 tailpieces with union nuts and gaskets

Accessories-Bracket

Picture	Code No.
	004H4518

Insulation for 1-pass XB52M-1

PU (Polyurethane) insulation

No. of plates	Type coverage (plate number)
20	004B1924
26	
30	
36	
40	
50	
60	004B1935
70	
80	
90	
100	004B1950
110	
120	
130	
140	

Insulation for 2-pass XB52M-1

PU (Polyurethane) insulation

No. of plates	Type coverage (plate number)
20/20	004B1924
26/26	
30/30	
36/36	
40/40	004B1935
46/46	
50/50	
56/56	004B1950
60/60	
66/66	
70/70	

Technical data

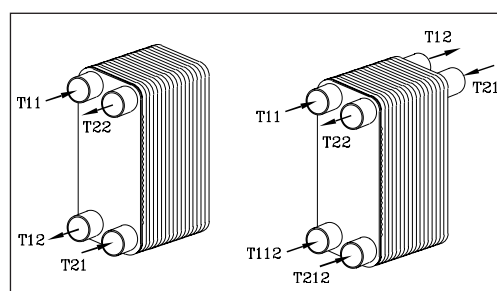
Type		XB52M
Max. working pressure	bar	25
Min. / Max. temperature	°C	-196 / 180
Flow medium		DH: Circulation water / glycolic water up to 50% transfer media. DC: ethylene-, propylene-glycolic water, ethanol-water solutions and other suitable heat transfer media. (Please contact your Danfoss representative).
Volume/channel	Ltr	0.163
Connection type		Cylindrical external thread acc. to DIN ISO 228/1
Connection size		G 2"
Weight	kg	1-pass: 7.39+0.27 × n
		2-pass: 8.11+0.27 × n
Materials		
Plate		Stainless steel, EN 1.4404 (AISI 316L)
Brazing		Copper (Cu) / CoResist (Cu+)

Insulation

Type			PU (Polyurethane)
Heatconductivity, λ		W/mK	0,035
Max temperature	Permanent	°C	130
	Short term peak		150
Wall thickness		mm	20

Design and function

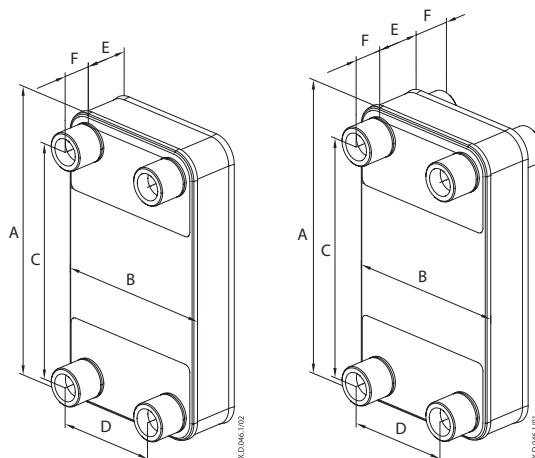
- T11** - Primary side in
- T12** - Primary side out
- T112** - Primary side second inlet (2-pass)
- T21** - Secondary side in
- T22** - Secondary side out
- T212** - Secondary side second inlet (2- pass)



Danfoss 2 pass heat exchangers are made with 6 connections, as they are primarily used to heat tap water.

There is one additional connection to allow circulation of hot water and one connection to connect and extract heat from return water from heating heat exchanger. Connections T112 and T212 can be blocked if they are not used.

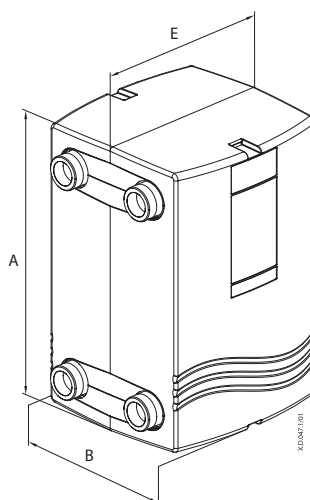
Dimensions ¹⁾



Type	Connection G 2" ¹⁾
A	466
B	256
C	379
D	170
F	50

Type	E (mm)
M	15.2 + 1.75*NoP (+0.5/-3%)

NoP = number of plates
¹⁾ Cylindrical external thread acc.
to DIN ISO 228/1



PU - insulation

Insulation for 1-pass

Type coverage (plate number)	Code No.
20	004B1924 A=512 B=320 E=197
26	
30	
36	
40	
50	
60	
70	004B1935 A=512 B=320 E=257
80	
90	
100	004B1950 A=512 B=320 E=337
110	
120	
130	
140	

Insulation for 2-pass

Type coverage (plate number)	Code No.
20/20	004B1924 A=512 B=320 E=197
26/26	
30/30	
36/36	
40/40	004B1935 A=512 B=320 E=257
46/46	
50/50	
56/56	004B1950 A=512 B=320 E=337
60/60	
66/66	
70/70	

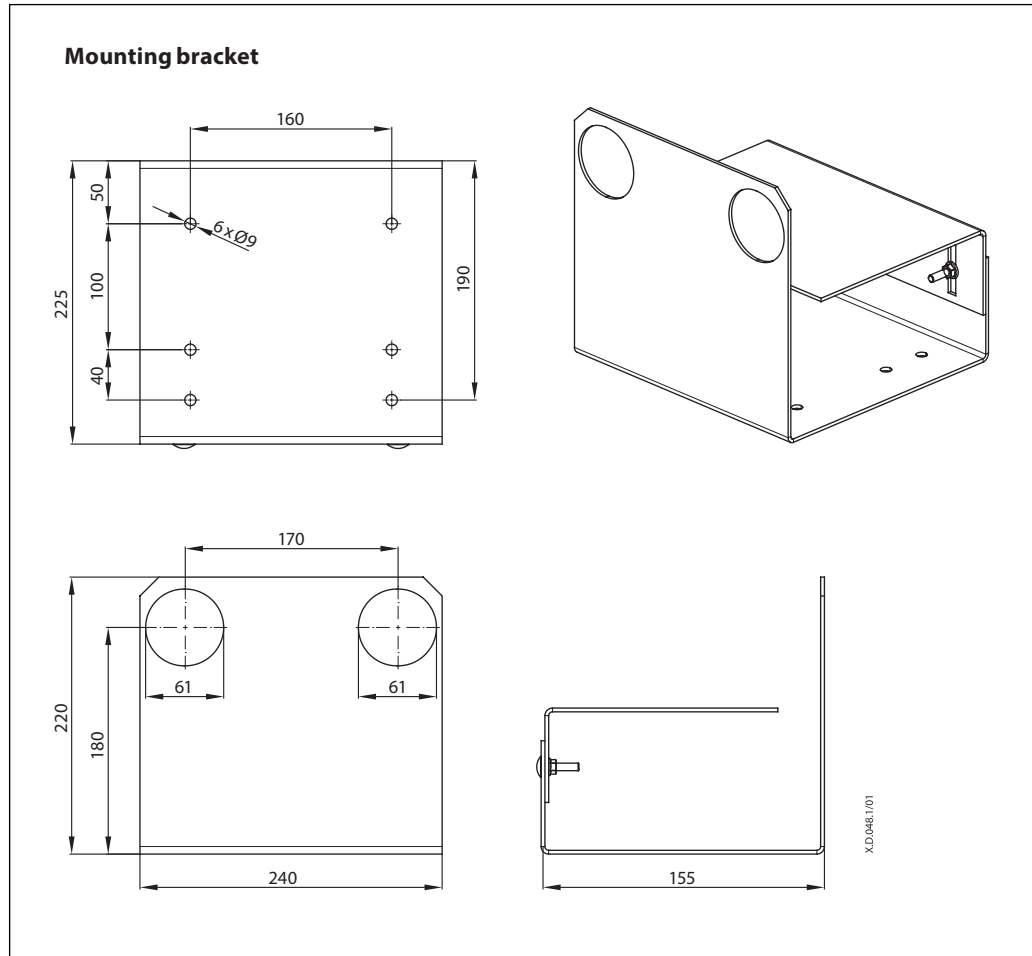
¹⁾ Dimensions can be as well extract from
Danfoss calculation software "Hexact"
which can be downloaded from hexact.
danfoss.com.

Tailpieces

Picture	Description	Connection	Code No.	a	b	SW ¹⁾
				mm		
	Solder tailpieces	G 2" / 28mm	004B2910	32	45	65
		G 2" / 35mm	004B2911	39	45	65
		G 2" / 42mm	004B2912	51	45	65
	Weld-on tailpieces	G 2" / DN32	004B2907	42.4	45	65
		G 2" / DN40	004B2908	48.5	45	65
		G 2" / DN50	004B2909	58	43	65

¹⁾ Union nut, width across flats

Dimensions (continuous)



Danfoss A/S

Climate Solutions • danfoss.com • +45 7488 2222

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product.

All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.