

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**

Picture	No. of plates, n	Connection	XB52M-1
			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		

2-pass heat exchanger **XB52**

Picture	No. of plates, n	Connection	XB52M-2
			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

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

Ordering (continued)

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

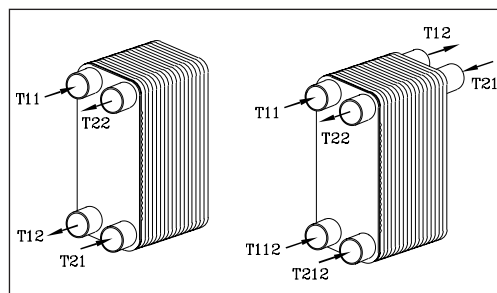
Type		XB52M
Max. working pressure	bar	25
Min. / Max. temperature	°C	-10 / 180
Flow medium		DH: Circulation water / glycolic water up to 50% transfer media. DC: ethylene-, propylene-glycolic water, ethanol-water solutions and other suitable heat transfer media. (Please contact your Danfoss representative).
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

Insulation

Type		PU (Polyurethane)
Heatconductivity, λ	W/mK	0,035
Max temperature	Permanent	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)

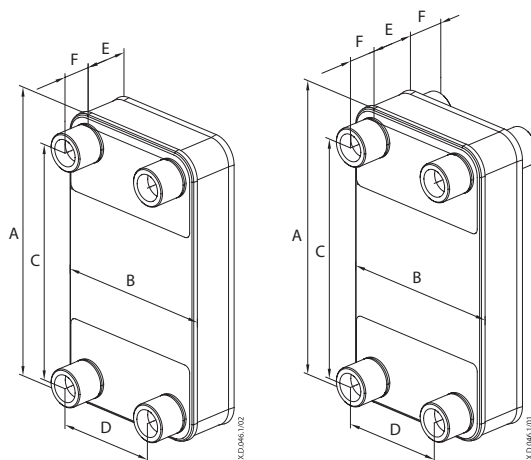


Danfoss 2 pass heat exchangers are made with 6 connections, as they are primarily used to heat tap water.

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.

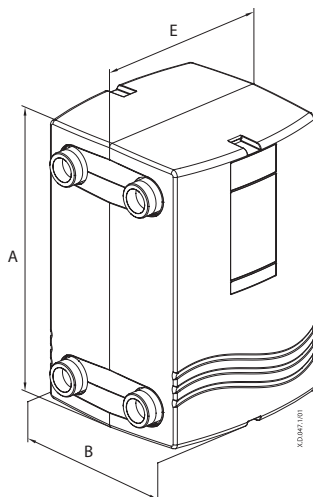
Dimensions ¹⁾



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

Type	E (mm)
M	n × 1,75 + 17,6 (+0,5/-3%)

n = 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	

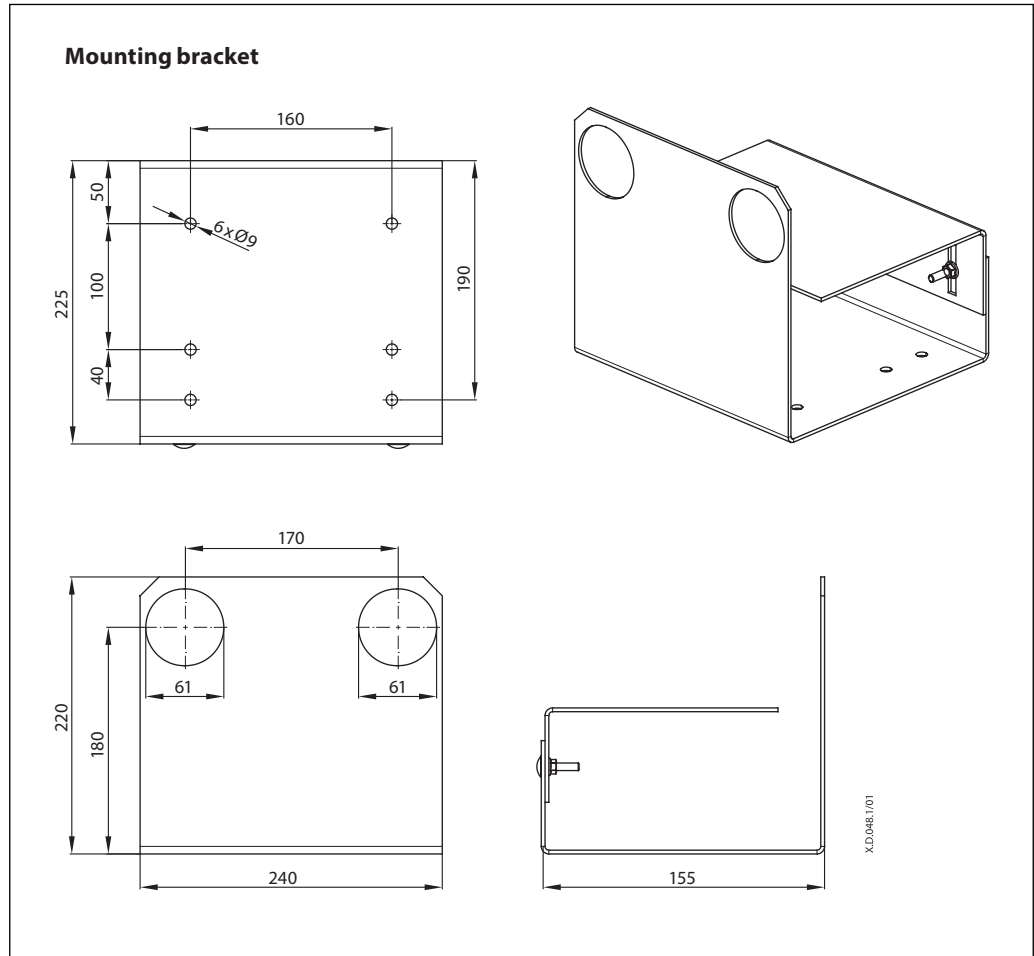
¹⁾ Dimensions can be as well extract from Danfoss calculation software "Hexact" which can be downloaded from hexact.danfoss.com.

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)



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