

Data sheet

# Micro plate heat exchanger (MPHE): XB 52

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](http://districtenergy.danfoss.com) (MPHE)

XB 52 is copper brazed heat exchanger, designed and configured for District Heating, District Cooling and other Heating applications. Heat exchanger XB 52 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](http://hexact.danfoss.com).

Approval:

Pressure Equipment Directive (PED).

Ordering

1-pass heat exchanger XB 52

Picture	No. of plates, n	Connection	XB 52M-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 XB 52

Picture	No. of plates, n	Connection	XB 52M-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. <sup>1)</sup>
	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

<sup>1)</sup> One set contains 2 tailpieces with union nuts and gaskets

Accessories-Bracket

Picture	Code No.
	004H4518

**Ordering (continued)**

**Insulation for 1-pass XB 52M-1**  
PU (Polyurethane) insulation

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

**Insulation for 2-pass XB 52M-1**  
PU (Polyurethane) insulation

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

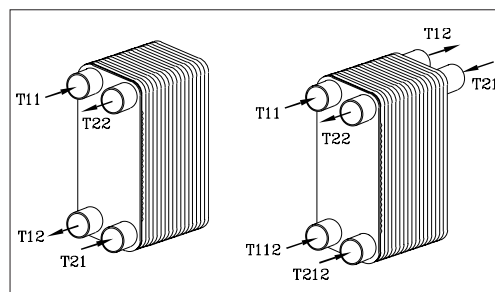
**Technical data**

Type		XB 52M
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	0,158
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
<b>Materials</b>		
Plate		Stainless steel, EN 1.4404 (AISI 316L)
Brazing		Copper

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

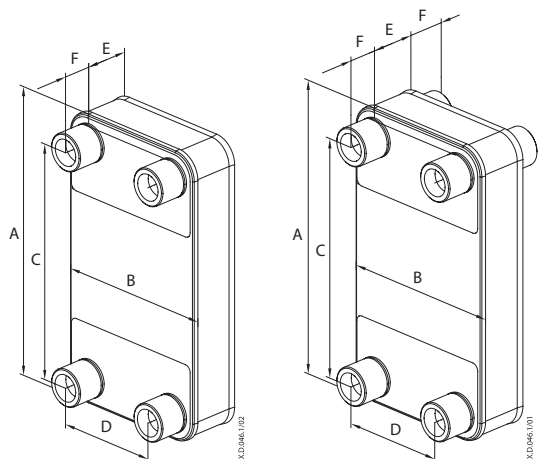
**Design and function**

- 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 <sup>1)</sup>**

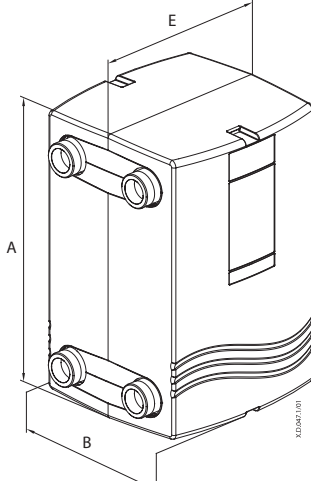


Type	Connection G 2" <sup>1)</sup>
<b>A</b>	466
<b>B</b>	256
<b>C</b>	379
<b>D</b>	170
<b>F</b>	50

Type	<b>E</b> (mm)
M	$n \times 1,75 + 17,6$ (+0,5/-3%)

*n = number of plates*  
<sup>1)</sup> Cylindrical external thread acc. to DIN ISO 228/1



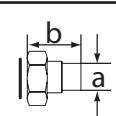
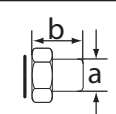
**PU - insulation**

Insulation for 1-pass	
Type coverage (plate number)	Code No.
20	<b>004B1924</b> A=512 B=320 E=197
26	
30	
36	
40	
50	
60	<b>004B1935</b> A=512 B=320 E=257
70	
80	
90	<b>004B1950</b> A=512 B=320 E=337
100	
110	<b>004B1950</b> A=512 B=320 E=337
120	
130	
140	

Insulation for 2-pass	
Type coverage (plate number)	Code No.
20/20	<b>004B1924</b> A=512 B=320 E=197
26/26	
30/30	
36/36	<b>004B1935</b> A=512 B=320 E=257
40/40	
46/46	
50/50	<b>004B1950</b> A=512 B=320 E=337
56/56	
60/60	
66/66	
70/70	

<sup>1)</sup> 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 <sup>1)</sup>
				mm		
	Solder tailpieces	G 2" / 28mm	<b>004B2910</b>	32	45	65
		G 2" / 35mm	<b>004B2911</b>	39	45	65
		G 2" / 42mm	<b>004B2912</b>	51	45	65
	Weld-on tailpieces	G 2" / DN32	<b>004B2907</b>	42,4	45	65
		G 2" / DN40	<b>004B2908</b>	48,5	45	65
		G 2" / DN50	<b>004B2909</b>	58	43	65

<sup>1)</sup> Union nut, width across flats

Dimensions (continuous)

