

#### **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 (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.

#### Approval:

Pressure Equipment Directive (PED).

#### Ordering

1-pass heat exchanger **XB 52** 

Picture	No. of plates,	Connection	XB 52M-1
Picture	n	Connection	Code No.
	20		004H4520
	26		004H4521
	30		004H4522
	36		004H4523
	40		004H4524
	50	Ext. Thread G 2"	004H4525
	60		004H4526
	70		004H4527
	80		004H4528
	90		004H4529
	100		004H4530
	110		004H4531
	120		004H4532
	130		004H4533
	140		004H4534

### Accessories-Tailpieces

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

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

#### 2-pass heat exchanger XB 52

Picture	No. of	Connection	XB 52M-2
Picture	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

#### Accessories-Bracket

Picture	Code No.
	004H4518

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#### Ordering (continued)

#### Insulation for 1-pass XB 52M-1

PU (Polyurethane) insulation

No. of plates	Type coverage (plate number)
20	
26	
30	
36	00481034
40	- 004B1924
50	
60	
70	
80	
90	004B1935
100	
110	
120	00481050
130	004B1950
140	

#### Insulation for 2-pass XB 52M-1

PU (Polyurethane) insulation

No. of plates	<b>Type coverage</b> (plate number)	
20/20		
26/26	004B1924	
30/30	00461924	
36/36		
40/40		
46/46	004B1935	
50/50		
56/56		
60/60	00484050	
66/66	004B1950	
70/70		

#### **Technical data**

Туре		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	
Materials			
Plate		Stainless steel, EN 1.4404 (AISI 316L)	
Brazing		Copper	

#### Insulation

Туре			PU (Polyurethane)
Heatconductivity,	λ	W/mK	0,035
Ma tamana a wati wa	Permanent	°C	130
Max temperature	Short term peak		150
Wall thickness		mm	20

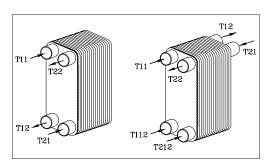
## Design and function

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)



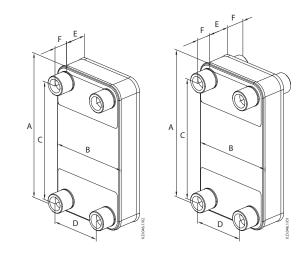
Danfoss 2 pass heat exchangers are made with 6 connections, as they are primarily used to heat tap water.

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.

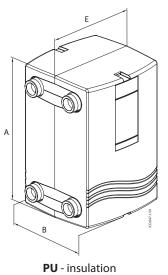
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#### Dimensions 1)



Туре	Connection G 2" 1)
Α	466
В	256
С	379
D	170
F	50

Туре	<b>E</b> (mm)
М	n × 1,75 + 17,6 (+0,5/-3%)



#### **Insulation for 1-pass**

<b>Type coverage</b> (plate number)	Code No.
20	
26	
30	004B1924
36	<b>A</b> =512
40	<b>B</b> =320
50	<b>E</b> =197
60	
70	
80	004B1935
90	<b>A</b> =512 <b>B</b> =320
100	<b>E</b> =257
110	00404050
120	<b>004B1950</b> <b>A</b> =512
130	<b>B</b> =320
140	<b>E</b> =337

#### **Insulation for 2-pass**

Code No.				
004B1924				
<b>A</b> =512				
<b>B</b> =320				
<b>E</b> =197				
004B1935				
<b>A</b> =512 <b>B</b> =320				
<b>E</b> =257				
004B1950				
<b>A</b> =512				
<b>B</b> =320				
<b>E</b> =337				

#### **Tailpieces**

Picture	Description	Connection	Code No.	a	b	SW 1)
				mm		
b a	Solder tailpieces	G 2"/ 28mm	004B2910	32	45	65
		G 2"/ 35mm	004B2911	39	45	65
		G 2"/ 42mm	004B2912	51	45	65
b ↓ a a	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

Union nut, width across flats

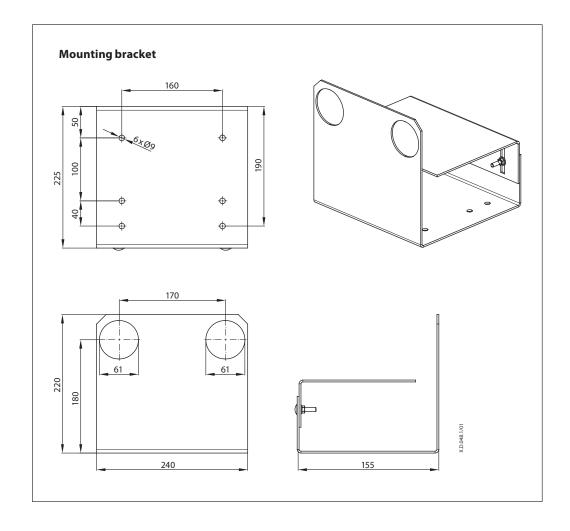
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n = number of plates
'' Cylindrical external thread acc.
to DIN ISO 228/1

<sup>&</sup>lt;sup>1)</sup> Dimensions can be as well extract from Danfoss calculation software "Hexact" which can be downloaded from hexact. danfoss.com.



#### **Dimensions** (continuous)



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