Hoval

CATALOGO

Plate heat exchangers



Hoval | Responsibility for energy and environment

Table of contents

- Description 5
- Part numbers 7
- Technical data 10
- Dimensions 17

Plate heat exchanger Danfoss

- Plate heat exchanger with the new Micro Plate™ technology
- A new plate embossing that can transfer heat more efficiently, with lower pressure drop and longer service life
- Heat exchanger brazed with copper (XB37...: stainless steel) solder under vacuum for heating and cooling applications with approval according to the Pressure Equipment Directive 97/23/EC
- Operating pressure: max. 25/16 bar
- Min./max. temperature: −10/180 °C
- Suitable for circulation water/water containing glycol with up to 50 % glycol proportion, ethylene glycol/propylene glycol-water mixtures, ethanol-water solutions and other suitable heat transfer fluids
- Connection type: cylindrical external thread according to DIN ISO 228/1
- Plates made of stainless steel, material number 1.4404



Plate heat exchanger Sondex

- SONDEX® plate heat exchanger screwed
- Consisting of profiled heat exchanger plates, clamped together by clamping bolts between stand and pressure plate and secured on upper and lower carrying rod
- With additional support profile for correct installation and removal of the mobile pressure plate and the plate pack
- With exclusive use of seals without adhesive in the SONDER LOCK or HANG ON process (simple seal change on site)
- Steel frame, primer-coated and painted blue (RAL 5010)
- Produced according to the DS/EN ISO 9001:2000 quality assurance system and according to the Pressure Equipment Directive 2014/68/EU (PED)
- Pressure test and leak test with works certificate included
- Operating pressure: max. 10 bar
- Operating temperature: 90/110 °C
- Plate material: 0.5 mm AISI 316
- Sealing material: NITRIL HT HANG ON (H)
- Including: Support for screwed plate heat exchanger, as stable foot construction



The plate heat exchangers XB, S...A are designed for use in district heating transfer stations, for heating and air conditioning technology and for domestic water heating. Type-tested in accordance with the Pressure Equipment Directive (PED)

Type	XB06L-1	XB12L-1	XB52M-1	XB61L-1	XB37L-1	XB37M-1	S8A IG16	S8A IT10	S14A	S19A
MicroPlate™ technology	x									
SONDEX® (bolted) [1]							x			
Max. operating pressure [bar]	25					16	10			
Max. medium temperature [°C]	180						90		110	
Min. medium temperature [°C]	−10						−20			
Flow medium	Circuit water/water-glycol mixtures up to 50 %									
Volume capacity per channel [l]	0.025	0.045	0.163	0.239	0.102	0.07	0.21		0.35	0.60
Connection size of external thread	G ¾″	G 1¼″	G 2″		G 1″		DN 32		DN 50	DN 65
Plate/connections material	Stainless steel, mat. No. 1.4404 (AISI 316L)									
Solder/connections material [1]	Copper					Stainless steel	Nitril HT HANG ON (H)			
Thermal insulation	Thermal insulation made of PU rigid foam, 2-part, temperature-resistant up to 130 °C (up to 150 °C for short periods)						On site			



Reading example:

XB37 = type
M = variant
-1- = number of channels
40 = number of plates

Plate heat exchanger Danfoss

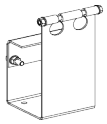
Type	Connection	Part No.
XB06L-1-16	G ¾″	2080 139
XB06L-1-20	G ¾″	2080 140
XB06L-1-26	G ¾″	2080 141
XB06L-1-30	G ¾″	2080 142
XB06L-1-36	G ¾″	2080 143
XB06L-1-50	G ¾″	2080 144
XB12L-1-20	G 1¼″	2080 152
XB12L-1-26	G 1¼″	2080 153
XB12L-1-30	G 1¼″	2080 147
XB12L-1-36	G 1¼″	2080 148
XB12L-1-40	G 1¼″	2080 120
XB12L-1-50	G 1¼″	2080 149
XB12L-1-70	G 1¼″	2080 150
XB12L-1-80	G 1¼″	2080 151
XB37M-1-20	G 1″	2080 154
XB37M-1-26	G 1″	2080 155
XB37M-1-30	G 1″	2080 156
XB37M-1-36	G 1″	2080 157
XB37M-1-40	G 1″	2080 158
XB37M-1-50	G 1″	2080 159
XB37M-1-70	G 1″	2080 160
XB37M-1-80	G 1″	2080 161
XB37L-1-100	G 1″	2080 162
XB52M-1-90	G 2″	2080 121
XB52M-1-110	G 2″	2080 145
XB52M-1-140	G 2″	2080 146
XB61L-SB-1-40	G 2″	2080 135
XB61L-SB-1-50	G 2″	2080 136
XB61L-SB-1-60	G 2″	2080 137
XB61L-SB-1-70	G 2″	2080 122
XB61L-SB-1-80	G 2″	2080 138



Plate heat exchanger Sondex

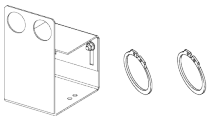
Type	Connection	Part No.
S8A-IT10-18-TL	DN 32	2080 181
S8A-IT10-22-TL	DN 32	2080 182
S8A-IT10-36-TL	DN 32	2080 183
S8A-IG16-60-TL	DN 32	2080 184
S14A-ST16-50-TL	DN 50	2080 185
S14A-ST16-72-TL	DN 50	2080 186
S19A-IG16-86-TL	DN 65	2080 187
S19A-IG16-152-TL	DN 65	2080 188

Accessories



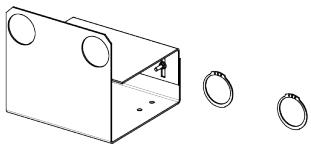
Bracket for XB06-1
Height: 202 mm
Width: 100 mm
Depth: 100 mm

Part No. 2080 662



Bracket for XB12 G 1¼"
Bracket set comprises
bracket and two circlips
Height: 210 mm
Width: 120 mm
Depth: 155 mm

Part No. 2080 661



Bracket for XB52M-1
Bracket set comprises
bracket and two circlips
Height: 220 mm
Width: 240 mm
Depth: 155 mm

Part No. 2085 351



Bracket for XB61L-SB-1-30…60
for floor attachment
Height: 217 mm
Width: 300 mm
Depth: 110 mm

Part No. 2085 352



Bracket for XB61L-SB-1-61…120
for floor attachment
Height: 217 mm
Width: 300 mm
Depth: 199 mm

Part No. 2085 353



Thermal insulation for plate heat exchangers
Material: polyurethane (PU)
Thermal conductivity: 0.035 W/mK
Thickness: 20 mm

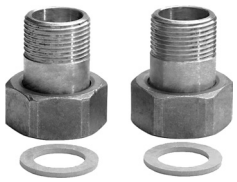
Suitable for plate heat exchanger type	Number of plates variant H	M	L	Part No.
XB06			08-26	2080 123
XB06			30-48	2080 124
XB06			50	2083 874
XB12	10-52	10-40	10-36	2080 125
XB12	60-100	50-92	40-72	2080 126
XB12	110-140	100-110	80-100	2080 127
XB37	10-30	10-26	10-20	2085 014
XB37	36-50	30-40	26-36	2085 015
XB37	60-90	50-70	40-50	2085 016
XB37	100	80-100	60-80	2085 017
XB37		110	90-100	2085 018
XB52		72-104		2080 128
XB52		106-140		2083 875

Notice
Not for cooling applications

Thermal insulation for plate heat exchangers
Material: mineral wool
Thermal conductivity: 0.029 W/mK
Thickness: 30 mm

Suitable for plate heat exchanger type	Number of plates variant H	M	L	Part No.
XB61	30-90	30-90	30-50	2080 129
XB61	91-160	71-120	51-100	2080 130

Notice
Not for cooling applications



Screw connection set for plate heat exchangers
containing two end pieces
with union nuts and seals
Material: brass

Suitable for plate heat exchanger type	Connection inches	Part No.
XB04, XB06, XB24	G ¾″ E – G 1″ E	2080 131
XB12	G 1¼″ E – G 1″ E	2080 132
XB12	G 1¼″ E – G 1½″ E	2080 133
XB37	G 1″ A – Rp ¾″ A	2085 019

Notice
Two sets are necessary



Set with 2 welding ends G 2″ E/DN 40 with union nuts and seals — 2080 134
suitable for the types:
XB52 and XB61
Diameter: 1½″
Operating pressure: max. 25 bar
Material: 1.0308

Notice
Two sets are necessary

Selection recommendation plate heat exchanger

Notice
The tables below are only intended for preliminary selection of a suitable plate heat exchanger. A more precise design is recommended before ordering.

Cooling
Temperature difference 3 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 7 °C, T_{out} 11 °C				T_{in} 14 °C, T_{out} 10 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
5	10	18.8	1.4	37.5	8.8	17.9	0.9	35.9	4.9	XB12L-1-30
5	10	18.8	1.0	37.5	5.5	17.9	0.7	35.8	3.2	XB12L-1-36
5	10	18.8	0.7	37.5	4.1	17.9	0.5	35.9	2.5	XB12L-1-40
10	14	37.9	2.4	52.5	5.6	36.3	1.4	50.2	3.4	XB12L-1-50
14	20	52.9	2.5	75.0	6.4	50.5	1.5	71.7	4.0	XB12L-1-70
20	24	75.4	4.7	90.0	7.5	72.0	3.1	86.0	4.9	XB12L-1-80

Heating
Temperature difference 3 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 35 °C, T_{out} 30 °C				T_{in} 27 ° C, T_{out} 32 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
8	10	24.1	3.4	30.1	6.3	23.1	2.0	28.9	3.7	XB12L-1-26
8	10	24.1	2.3	30.2	4.1	23.1	1.4	28.8	2.6	XB12L-1-30
10	14	30.4	2.7	42.2	6.3	29.2	1.6	40.4	3.9	XB12L-1-36
10	14	30.4	1.9	42.2	4.6	29.1	1.2	40.4	3.0	XB12L-1-40
14	20	42.5	2.7	60.3	6.9	40.7	1.8	57.8	4.5	XB12L-1-50
20	30	60.9	3.0	90.5	8.6	58.3	2.2	86.5	6.2	XB12L-1-70
30	35	90.7	6.6	105.5	9.5	86.8	4.6	100.1	7.1	XB12L-1-80

Cooling
Temperature difference 2 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 7 ° C, T_{out} 11 °C				T_{in} 13 °C, T_{out} 9 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Stainless steel solder
5	11	18.7	6.8	41.3	32.5	17.9	2.8	39.4	16.6	XB37M-1-26
12	14	45.0	29.3	52.5	38.2	39.4	11.9	50.2	20.9	XB37M-1-30
15	18	56.3	31.6	67.5	43.0	53.7	17.1	64.5	25.3	XB37M-1-36
18	24	67.6	25.5	90.0	42.1	64.5	13.5	86.0	26.1	XB37M-1-50

Heating
Temperature difference 2 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 35 °C, T_{out} 30 °C				T_{in} 28 °C, T_{out} 33 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Stainless steel solder
8	13	24.1	13.7	39.2	36.3	23.1	7.7	37.5	22.9	XB37M-1-20
13	17	39.2	20.8	51.2	35.9	37.5	13.4	49.0	24.0	XB37M-1-26
17	21	51.2	26.5	63.3	40.6	49.0	18.1	60.6	28.3	XB37M-1-30
21	25	63.3	28.3	75.3	40.5	60.6	20.1	72.0	29.0	XB37M-1-36
25	35	75.3	22.7	105.5	43.9	72.0	16.4	100.9	33.2	XB37M-1-50

Cooling
Temperature difference 5 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 7 °C, T_{out} 11 °C				T_{in} 16 °C, T_{out} 12 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
5	10	18.8	4.5	37.5	23.7	17.9	2.3	35.9	13.2	XB12L-1-20
10	14	37.9	13.0	52.5	26.5	36.2	7.4	50.2	15.9	XB12L-1-26
14	20	52.9	12.8	75.0	27.5	50.6	7.8	71.0	17.4	XB12L-1-36
20	28	75.5	13.7	105.0	28.2	72.1	8.7	100.0	18.8	XB12L-1-50

Heating
Temperature difference 5 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 35 °C, T_{out} 30 °C				T_{in} 25 °C, T_{out} 30 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
8	14	24.1	7.3	42.2	26	23.1	4.0	40.3	16.3	XB12L-1-20
14	20	42.5	14.2	60.3	30.1	40.6	9.1	57.7	20.2	XB12L-1-26
20	26	60.6	14.8	78.4	26.0	57.9	10.1	74.9	18.2	XB12L-1-36
26	35	78.7	12.8	105.5	25.0	75.2	9.0	100.1	18.0	XB12L-1-50

Cooling
Temperature difference 7 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 11 °C, T_{out} 16 °C				T_{in} 23 °C, T_{out} 18 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
5	14	15.0	2.5	42.0	28.9	14.4	1.2	40.0	16.7	XB12L-1-20
14	19	42.3	16.1	57.0	30.0	40.5	9.3	54.6	18.5	XB12L-1-26
19	26	57.4	14.9	78.0	28.9	54.9	9.1	74.5	18.6	XB12L-1-36
26	36	78.5	14.5	108.0	28.9	75.0	9.3	103.5	19.5	XB12L-1-50

Heating
Temperature difference 10 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 45 °C, T_{out} 40 °C				T_{in} 30 °C, T_{out} 35 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
8	14	24.1	6.9	42.2	24.8	23.1	4.0	40.4	16	XB12L-1-20
14	20	42.5	13.5	57.3	26.1	40.7	8.9	54.9	17.8	XB12L-1-26
20	26	57.6	12.5	78.5	24.8	55.1	8.8	75.0	17.9	XB12L-1-36
26	35	78.5	12.1	108.6	25.0	75.0	8.9	103.9	18.9	XB12L-1-50

Cooling
Temperature difference 6 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 12 ° C, T_{out} 16 °C				T_{in} 22 °C, T_{out} 18 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
5	11	18.8	4.3	41.3	27.9	18.0	2.2	39.5	16.1	XB12L-1-20
11	15	41.7	15.5	56.0	29.0	39.9	9.0	53.0	18	XB12L-1-26
15	21	56.5	14.4	78.0	29.0	54.2	8.9	75.0	19	XB12L-1-36
21	28	79.0	14.8	105.0	27.3	75.8	9.6	100.0	18.4	XB12L-1-50

Heating
Temperature difference 10 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 40 ° C, T_{out} 35 °C				T_{in} 25 ° C, T_{out} 30 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
8	14	24.1	7.1	42.2	25.4	23.1	4.1	40.4	16.3	XB12L-1-20
14	20	42.5	13.6	60.3	29.4	40.4	8.9	57.7	20.2	XB12L-1-26
20	28	60.5	14.4	84.5	29.4	57.8	10.1	80.7	21.3	XB12L-1-36
28	35	84.8	14.9	105.6	24.1	81.0	10.9	100.1	18.0	XB12L-1-50

Cooling
Temperature difference 3 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 7 °C, T_{out} 11 °C				T_{in} 14 °C, T_{out} 10 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
28	47	105.5	6.5	176.0	21.9	100.0	4.0	168.0	15.1	XB61L-SB-1-40
47	60	176.8	14.1	225.2	24.4	168.8	9.8	215.0	17.4	XB61L-SB-1-50
60	75	225.6	17.6	281.0	28.6	215.0	12.8	268.5	21.2	XB61L-SB-1-60
75	93	281.5	18.4	349.0	30.0	269.0	14.0	333.0	22.8	XB61L-SB-1-80

Heating
Temperature difference 3 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 35 °C, T_{out} 30 °C				T_{in} 27 °C, T_{out} 32 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
36	70	108.5	6.1	211.0	28.9	103.8	4.1	201.0	21.4	XB61L-SB-1-40
70	87	211.0	19.0	262.0	30.3	202.0	14.4	250.0	23.5	XB61L-SB-1-50
87	100	262.5	22.4	301.0	30.0	251.0	17.5	288.0	23.8	XB61L-SB-1-60
100	120	301.0	19.8	361.0	30.0	288.0	15.6	346.0	24.0	XB61L-SB-1-80

Cooling
Temperature difference 6 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 12 °C, T_{out} 16 °C				T_{in} 22 °C, T_{out} 18 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
28	55	105.0	6.2	206.0	21.0	100.7	3.9	197.0	21.0	XB61L-SB-1-40
55	66	207.0	19.7	247.9	29.1	198.0	14.0	237.2	21.2	XB61L-SB-1-50
66	77	248.3	21.3	289.0	29.6	237.0	15.8	276.5	22.2	XB61L-SB-1-60
77	93	289.7	19.2	349.4	29.0	277.0	14.8	334.0	22.6	XB61L-SB-1-80

Heating
Temperature difference 6 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 45 °C, T_{out} 40 °C				T_{in} 34 °C, T_{out} 39 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
36	72	108.5	5.9	217.0	30.0	104.3	4.1	208.0	22.6	XB61L-SB-1-40
72	85	217.5	19.6	256.5	28.0	208.4	15.2	245.0	22.0	XB61L-SB-1-50
85	100	256.9	20.7	301.0	30.0	246.0	16.5	289.0	23.6	XB61L-SB-1-60
100	122	302.0	19.3	368.0	29.7	289.0	15.8	352.0	24.8	XB61L-SB-1-80

Cooling
Temperature difference 2 K, ΔT 4 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 12 °C, T_{out} 16 °C				T_{in} 18 °C, T_{out} 14 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Stainless steel solder
24	28	90.2	39.4	105.2	51.2	86.1	25.7	100.5	34.7	XB37M-1-50
28	37	105.2	32.3	139.0	52.5	100.5	21.1	132.0	37.3	XB37M-1-70
37	41	139.0	20.0	154.0	25.3	132.8	16.1	147.0	20.3	XB37L-1-100

Heating
Temperature difference 2 K, ΔT 5 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 45 °C, T_{out} 40 °C				T_{in} 38 °C, T_{out} 43 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Stainless steel solder
35	40	105.6	42.0	120.7	53.8	101.0	32.3	115.8	41.7	XB37M-1-50
40	50	120.7	33.4	150.9	50.9	115.8	26.6	144.7	41.0	XB37M-1-70
50	65	150.9	22.3	196.0	38.6	144.7	18.8	188.1	33.4	XB37L-1-100

Heating
Temperature difference 5 K, ΔT 10 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 45 °C, T_{out} 35 °C				T_{in} 30 °C, T_{out} 40 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
10	21	14.5	3.2	30.4	19.2	14.4	2.6	30.3	16.1	XB06L-1-20
22	40	31.9	6.3	57.9	24.8	31.8	5.6	57.8	22.9	XB06L-1-36
41	57	59.4	15.9	82.5	32.0	59.2	15.2	82.3	30.9	XB06L-1-50
58	72	83.9	5.8	104.2	10.1	83.8	5.5	104.0	9.6	XB12L-1-70
73	83	105.6	7.9	120.1	10.9	105.5	7.7	119.9	10.5	XB12L-1-80
84	150	121.6	7.0	217.0	26.3	121.4	6.3	216.7	24.8	XB61L-SB-1-40
151	210	218.5	13.1	303.9	26.9	218.1	12.4	303.3	26.4	XB61L-SB-1-60
211	270	303.9	18.0	390.8	31.3	303.3	17.6	390.0	30.5	XB61L-SB-1-80

Heating
Temperature difference 5 K, ΔT 20 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type	
		T_{in} 75 °C, T_{out} 55 °C				T_{in} 50 °C, T_{out} 70 °C					
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp		
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder	Stainless steel solder
10	21	7.3	0.3	15.3	0.9	7.3	0.3	30.3	16.1	XB06L-1-36	
22	40	15.2	2.9	27.7	12.9	16.0	2.6	29.2	11.8		XB37M-1-20
41	67	28.4	4.9	46.4	16.3	29.9	4.8	48.8	16.1		XB37M-1-30
68	90	47.1	9.0	62.3	17.2	49.6	9.3	65.6	17.8		XB37M-1-40
91	115	63.0	11.6	79.7	19.5	66.3	12.2	83.8	20.6		XB37M-1-50
116	150	79.3	11.1	102.5	19.9	85.5	12.5	109.4	22.2		XB37M-1-70
151	165	102.2	7.9	111.6	9.9	110.1	9.5	120.3	11.9		XB37L-1-100
166	320	121.2	1.1	233.7	6.9	120.9	1.1	233.2	6.7	XB52M-1-90	

Heating
Temperature difference 5 K, ΔT 10 K

Plate heat exchanger		Primary circuit (30 % propylene glycol)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 75 °C, T_{out} 65 °C				T_{in} 60 °C, T_{out} 70 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
125	150	182.9	16.7	278.1	25.0	182.6	15.3	277.5	22.9	XB61L-1-40
151	180	221.0	16.8	263.5	24.9	220.6	15.9	262.9	23.4	XB61L-1-50
181	230	265.0	9.2	336.7	16.1	264.4	8.8	336.0	15.6	XB52M-1-90
231	330	338.1	10.9	483.1	24.2	337.4	10.6	482.0	23.6	XB52M-1-110
331	450	484.5	15.9	658.7	30.7	483.5	15.7	657.3	30.3	XB52M-1-140

Underfloor heating heat pump
Temperature difference 3 K, ΔT 5 K

Plate heat exchanger		Primary circuit (water)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 38 °C, T_{out} 33 °C				T_{in} 28 °C, T_{out} 35 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
6	9	17.3	9.4	26.0	23.0	12.4	3.0	18.6	8.4	XB06L-1-16
10	15	28.9	9.2	43.3	23.1	20.6	3.0	30.9	8.6	XB12L-1-20
16	20	46.2	14.3	57.8	23.4	33.0	5.2	41.2	9.2	XB12L-1-26
21	23	60.7	18.8	66.5	22.9	43.3	7.5	47.4	9.3	XB12L-1-30
24	28	69.4	16.8	80.9	23.5	50.0	6.8	57.7	9.8	XB12L-1-36
29	31	83.8	20.1	89.6	23.3	59.8	8.4	63.9	9.9	XB12L-1-40
32	38	92.5	15.7	109.8	22.8	66.0	6.5	78.3	9.9	XB12L-1-50
39	52	112.7	12.3	150.3	23.4	80.4	5.0	107.2	10.5	XB12L-1-70
53	58	153.1	19.2	167.6	23.4	109.2	8.4	119.5	10.5	XB12L-1-80

Underfloor heating heat pump
Temperature difference 3 K, ΔT 5 K

Plate heat exchanger		Primary circuit (water)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 43 °C, T_{out} 38 °C				T_{in} 30 ° C, T_{out} 40 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
6	9	17.4	9.2	26.1	22.6	8.7	1.1	13.0	3.3	XB06L-1-16
10	15	29.0	9.1	43.4	22.8	14.4	1.1	21.7	3.3	XB12L-1-20
16	20	46.3	14.1	57.9	23.1	23.1	2.0	28.9	3.6	XB12L-1-26
21	28	60.8	12.2	81.1	23.2	30.3	1.7	40.4	3.8	XB12L-1-36
29	38	84.0	12.3	110.0	22.5	41.9	1.8	54.9	3.8	XB12L-1-50
39	52	112.9	12.2	150.5	23.2	56.3	1.9	75.1	4.1	XB12L-1-70
53	58	153.4	19.0	167.9	23.2	76.6	3.2	83.8	4.1	XB12L-1-80

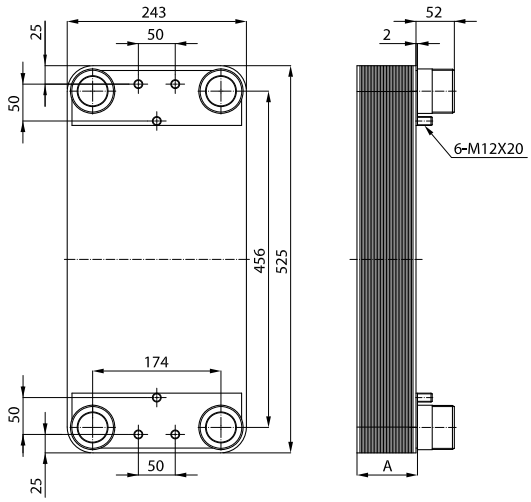
Underfloor heating / radiator heating boiler
Temperature difference 4 K, ΔT 10 K

Plate heat exchanger		Primary circuit (water)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 49 °C, T_{out} 39 °C				T_{in} 35 °C, T_{out} 45 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
10	15	14.5	1.6	21.7	4.6	14.5	1.3	21.7	3.9	XB06L-1-26
16	26	23.2	2.7	37.7	9.3	23.2	2.5	37.6	8.5	XB06L-1-36
27	35	39.1	5.7	50.7	10.9	39.1	5.3	50.7	10.4	XB06L-1-50
36	45	52.2	15.4	65.2	25.0	52.1	14.0	65.1	22.7	XB37-M-1-36
46	57	66.7	14.0	82.6	22.4	66.6	13.2	82.5	21.2	XB37-M-1-50
58	70	84.1	13.4	101.5	20.4	83.9	13.0	101.3	19.8	XB37-M-1-70

Radiator heating boiler
Temperature difference 4 K, ΔT 10 K

Plate heat exchanger		Primary circuit (water)				Secondary circuit (water)				Plate heat exchanger type
		T_{in} 63 °C, T_{out} 48 °C				T_{in} 45 ° C, T_{out} 60 °C				
[kW]		min. V	min. Δp	max. V	max. Δp	min. V	min. Δp	max. V	max. Δp	
min.	max.	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	[l/min.]	[kPa]	Copper solder
10	15	9.7	0.1	14.6	0.1	9.7	0.1	14.5	0.1	XB12-L-1-70
16	25	15.5	3.2	24.3	9.8	15.5	2.5	24.2	7.8	XB37-M-1-20
26	39	25.2	3.7	37.8	10.5	25.2	3.2	37.8	9.1	XB37-M-1-30
40	53	38.8	5.7	51.4	11.5	38.8	5.1	51.3	10.5	XB37-M-1-40
54	68	52.4	7.6	66.0	13.2	52.3	7.1	65.9	12.3	XB37-M-1-50
69	95	66.9	7.5	92.1	16.1	66.8	7.2	92.0	15.5	XB37-M-1-70
96	110	93.1	13.6	106.7	18.5	93.0	13.2	106.6	18.0	XB37-M-1-80

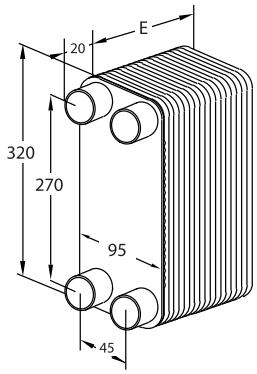
Plate heat exchanger XB61L



A mm	Volume/channel l	Water volume on the primary side l
12 + 2.24 x n	0.239	(n / 2) − 1 x volume/channel

n = number of plates

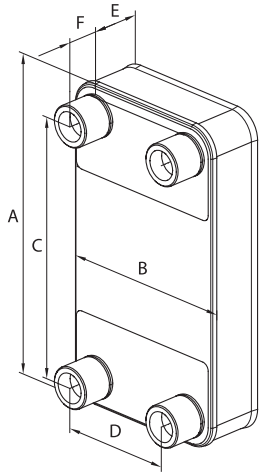
Plate heat exchanger XB06L



E mm	Water volume on the primary side l
7 + 1.6 x n	0.025 x n

n = number of plates

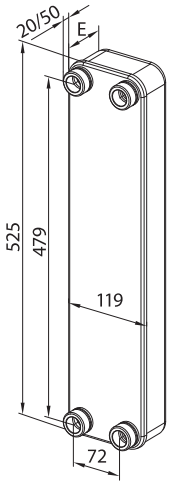
Plate heat exchanger XB52M



E (approx.) mm	Water content on the primary side l	A mm	B mm	C mm	D mm	F mm
15.2 + 1.75 x n	0.163 x n	466	256	379	170	50

n = number of plates

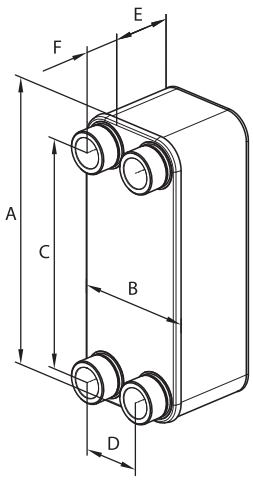
Plate heat exchanger XB37L/M



	E mm	Water volume on the primary side l
M	10 + 1.68 x n	0.07 x n
L	10 + 2.21 x n	0.102 x n

n = number of plates

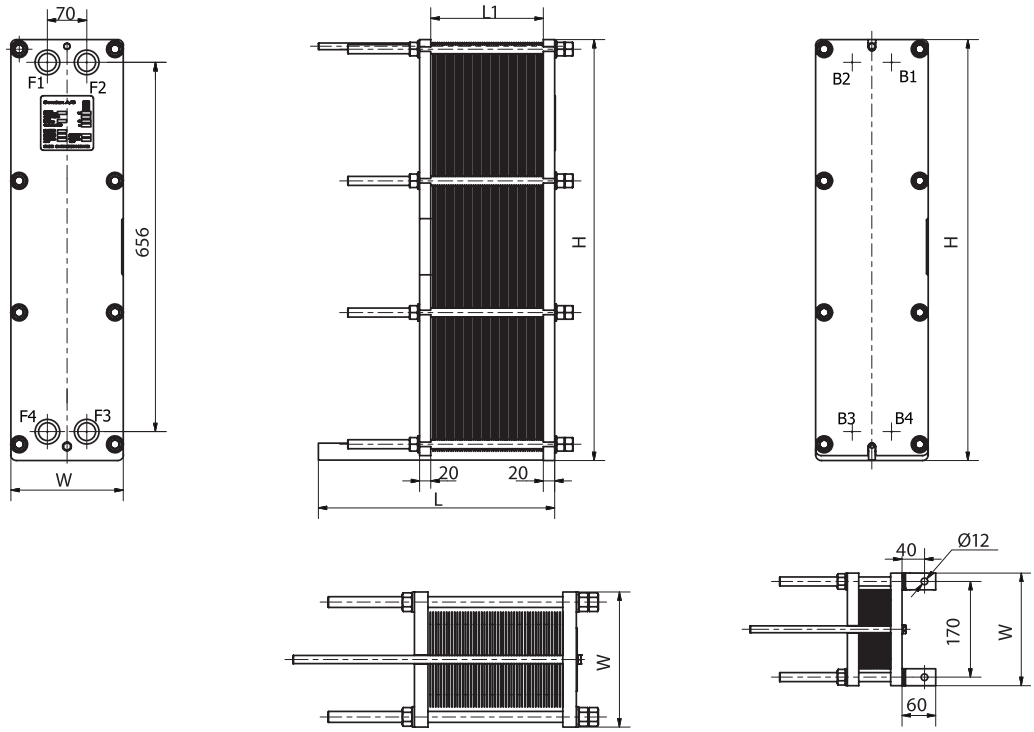
Plate heat exchanger XB12L



E (approx.) mm	Water volume on the primary side l	A mm	B mm	C mm	D mm	F mm
10 + 1.75 x n	0.045 x n	289	118	234	63	25

n = number of plates

Plate heat exchanger S8A



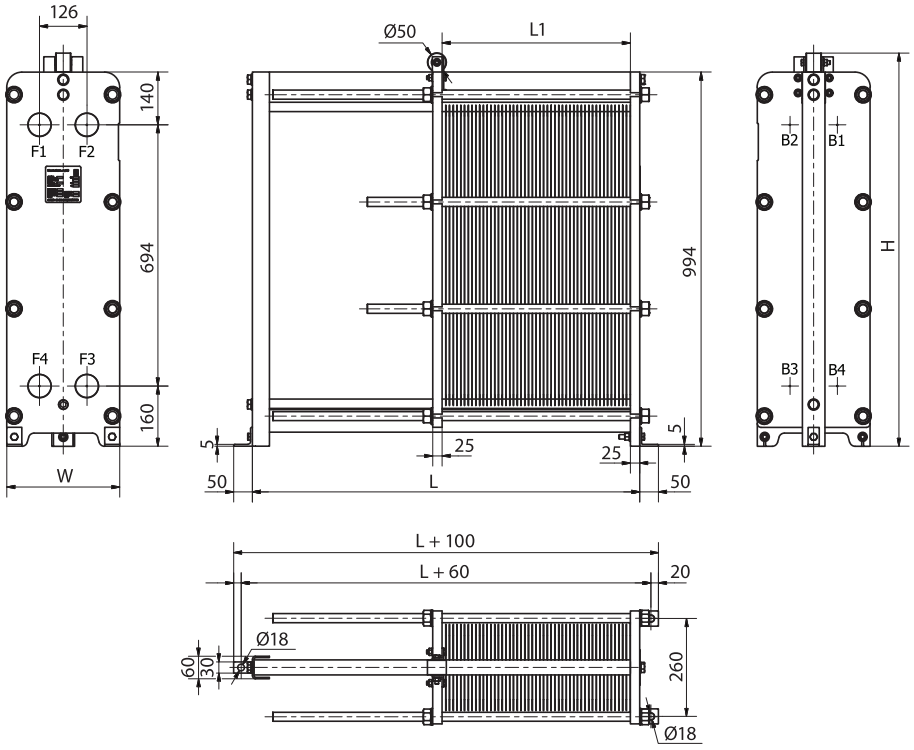
Type	Number of plates [1]	L (frame length) mm	W mm	H mm	Weight max., empty [2] kg	Water volume on the primary side l
S8A IG16	7-34	270		748	68	
S8A IG16	35-45	320		748	74	
S8A IG16	46-68	420		748	86	
S8A IG16	69-90	520	200	748	98	0.21 x n
S8A IT10	7-13	100		736	38	
S8A IT10	14-36	200		736	50	
S8A IT10	37-47	250		736	56	

n = number of plates

[1] The indicated maximum number of plates is based on the minimum plate thickness allowable for the PN level of the plate heat exchanger.

[2] The maximum weight of the empty plate heat exchanger with the maximum allowable number of plates

Plate heat exchanger S14A



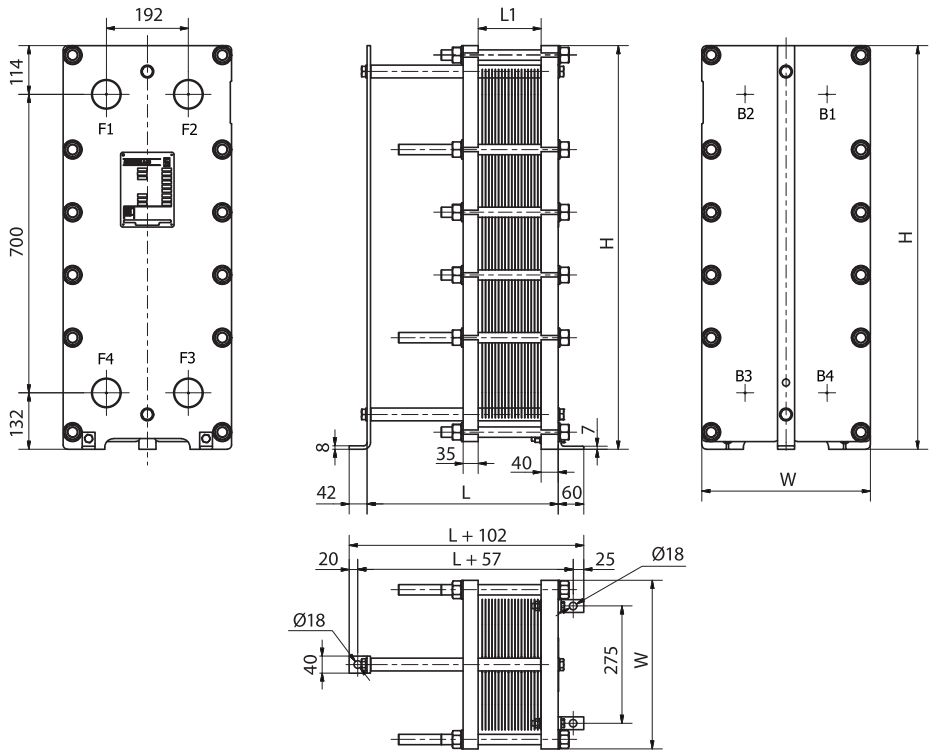
Type	Number of plates [1]	L (frame length) mm	W mm	H mm	Weight max., empty [2] kg	Water volume on the primary side l
S14A ST16	7-40	437			144	
S14A ST16	41-59	537	283	896	159	0.35 x n
S14A ST16	60-77	637			175	

n = number of plates

[1] The indicated maximum number of plates is based on the minimum plate thickness allowable for the PN level of the plate heat exchanger.

[2] The maximum weight of the empty plate heat exchanger with the maximum allowable number of plates

Plate heat exchanger S19A



Type	Number of plates [1]	L (frame length) mm	W mm	H mm	Weight max., empty [2] kg	Water volume on the primary side l
S19A IG16	7-59	443			255	
S19A IG16	60-79	643			277	
S19A IG16	80-100	643	395	946	301	0.6 x n
S19A IG16	101-130	793			333	
S19A IG16	131-181	1043			389	

n = number of plates

[1] The indicated maximum number of plates is based on the minimum plate thickness allowable for the PN level of the plate heat exchanger.

[2] The maximum weight of the empty plate heat exchanger with the maximum allowable number of plates

Swiss Association for Technical Inspections

Boiler inspection
Pressure test certificate issued by the independent authority “Swiss Association for Technical Inspections” (ASIT). If you should need a pressure test certificate, please contact your area manager.

Article	Pressure test certificate	Part No.
Boiler < 3000 kW	ASIT acceptance	2075 435
Boiler > 3000 kW	ASIT acceptance	2075 436

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