

PB / PBE
**HIGHLY EFFICIENT NATURAL CONVECTION FLOOR
CONVECTORS IN UNIVERSAL DESIGN**


CHARACTERISTICS

- **high natural convection heating power**
- stainless steel (PB) body or black coated galvanized steel (PBE) body
- universal right/left design
- wide range of standard widths and heights
- convectors can be connected to joints of any length

DIMENSIONS

widths (with standard frame)	200 / 260 / 340 / 420 mm
heights	90 / 110 / 140 mm
length ¹⁾	900 - 3000 mm
connection ²⁾	G1/2"

1) for non-standard lengths please contact your sales representative

2) internal thread on heat-exchanger, without water connection accessories

The PB series convectors are a clear choice for spaces where minimal intervention in the interior is desired, such as rooms with glass walls, conservatories or office spaces.

The free convection guarantees quiet operation and short reaction times. The minimum water content in the heat exchanger significantly reduces the losses of the heating system.

Thanks to the universal orientation, the installation of the convector is simple and allows you to react operatively to changes in the project.

Whether you install the convector in a cast or hollow floor, thanks to the construction of the adjusting feet, you can easily achieve a precise alignment with the floor.

All accessories necessary for easy installation and reliable function according to your needs can be selected from a wide range of compatible accessories, which we have prepared and verified for your comfort.

The convector comes completely assembled. The parameters of each component are checked during production to ensure the highest quality of the MINIB, a.s. products.

ORDER CODE

KPAS U 200 09* 090 21C*

Category	Orientation	Width	Length	Height	Type
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200 x 90	KPAS U 200 09* 090 21C*
200 x 110	KPAS U 200 09* 110 21C*
200 x 140	KPAS U 200 09* 140 41C*
260 x 90	KPAS U 260 09* 090 21C*
260 x 110	KPAS U 260 09* 110 21C*
260 x 140	KPAS U 260 09* 140 41C*
340 x 90	KPAS U 340 09* 090 41C*
340 x 110	KPAS U 340 09* 110 41C*
340 x 140	KPAS U 340 09* 140 81C*
420 x 90	KPAS U 420 09* 090 41C*
420 x 110	KPAS U 420 09* 110 41C*
420 x 140	KPAS U 420 09* 140 81C*

* Length:

09 = 900 mm, 10 = 1000 mm, 12 = 1250 mm, 15 = 1500 mm, 17 = 1750 mm, 20 = 2000 mm, 22 = 2250 mm, 25 = 2500 mm, 27 = 2750 mm, 30 = 3000 mm

Type: 1C - stainless steel / 5A - black coated galvanized steel

UNIVERSAL ORIENTATION AND CONNECTION

The universal design of the convector allows any position of the heat exchanger and the direction of connection.

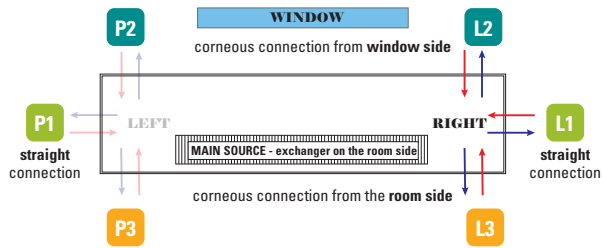
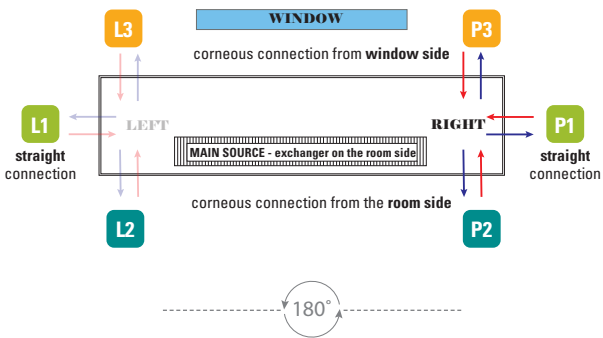
Supplied as a **RIGHT VERSION**, but can be easily converted to the left version by the customer. It is as simple as turning the heat exchanger over.

If the convector is used as an additional heat source which prevents the condensation of the window, just move the exchanger to the window side of the convector.

CONNECTION OPENINGS

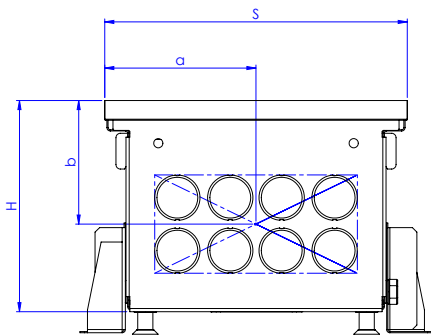
The convector is supplied with pre-cut holes for all connection directions and all variants of connection accessories. Simply push-out the holes according to the connection direction you have chosen.

The positions of the connection openings for the individual dimensions of the convector are shown in the drawings on the right. The openings are placed symmetrically according to the longitudinal and transverse axes of the convector.

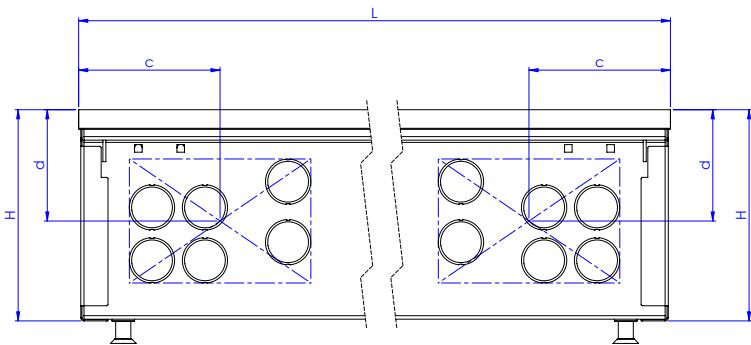


	S	H	a	b	c	d
PB 200 x 90	200	90	100	64	94	56
PB 200 x 110	200	110	100	69	94	61
PB 200 x 140	200	140	100	82	94	74
PB 260 x 90	260	90	130	64	94	56
PB 260 x 110	260	110	130	69	94	61
PB 260 x 140	260	140	130	81	94	73
PB 340 x 90	340	90	170	64	94	56
PB 340 x 110	340	110	170	64	94	56
PB 340 x 140	340	140	170	82	94	73
PB 420 x 90	420	90	210	64	94	56
PB 420 x 110	420	110	210	69	94	61
PB 420 x 140	420	140	210	82	94	73

STRAIGHT CONNECTION P1, L1



CORNEOUS CONNECTION P2, P3, L2, L3



CONVECTOR JOINTS

Convectors of the PB series are manufactured in lengths up to 3000 mm. Longer convectors can be created by connecting several convectors behind each other. Thanks to the construction of the convector, the upper part of the trough face can be easily separated without disassembly and the convectors can be connected into joints of any length.

HEATING POWER

	input / output water temperature [°C]	length L [mm]									
		09=900	10=1000	12=1250	15=1500	17=1750	20=2000	22=2250	25=2500	27=2750	30=3000
		air temperature tA = 20°C									
PB 200 x 90	85 / 75	214	250	339	428	517	606	695	784	873	963
	75 / 65	166	194	263	332	401	470	539	609	678	747
	65 / 55	122	142	193	243	294	345	395	446	497	547
	45 / 40	55	64	86	109	132	155	177	200	223	246
PB 200 x 110	85 / 75	237	277	375	474	573	672	770	869	968	1067
	75 / 65	184	215	291	368	445	522	598	675	752	828
	65 / 55	135	158	214	270	326	383	439	495	552	608
	45 / 40	61	71	96	122	147	172	198	223	248	274
PB 200 x 140	85 / 75	364	424	576	727	879	1030	1182	1333	1485	1636
	75 / 65	282	329	447	565	682	800	918	1035	1153	1271
	65 / 55	207	242	328	414	501	587	673	760	846	932
	45 / 40	93	109	148	187	225	264	303	342	381	420
PB 260 x 90	85 / 75	267	311	422	533	644	755	866	977	1088	1200
	75 / 65	207	242	328	415	501	588	674	761	847	934
	65 / 55	153	178	242	305	369	433	496	560	623	687
	45 / 40	69	81	110	138	167	196	225	254	283	311
PB 260 x 110	85 / 75	316	368	500	631	763	894	1026	1157	1289	1421
	75 / 65	245	286	388	490	592	695	797	899	1001	1103
	65 / 55	180	210	285	360	435	510	585	660	735	810
	45 / 40	81	95	128	162	196	230	263	297	331	365
PB 260 x 140	85 / 75	454	530	720	909	1098	1288	1477	1666	1856	2045
	75 / 65	353	412	559	706	853	1000	1147	1294	1441	1588
	65 / 55	259	302	410	518	626	734	842	950	1058	1166
	45 / 40	117	136	185	233	282	330	379	428	476	525
PB 340 x 90	85 / 75	353	411	558	705	852	999	1146	1293	1440	1586
	75 / 65	276	322	437	552	667	782	897	1012	1127	1242
	65 / 55	205	239	324	409	494	580	665	750	835	921
	45 / 40	94	110	150	189	228	268	307	346	386	425
PB 340 x 110	85 / 75	419	489	663	838	1012	1187	1361	1536	1710	1885
	75 / 65	328	383	519	656	792	929	1066	1202	1339	1475
	65 / 55	243	284	385	486	587	689	790	891	992	1094
	45 / 40	112	131	178	225	271	318	365	412	458	505
PB 340 x 140	85 / 75	551	642	872	1101	1331	1560	1789	2019	2248	2478
	75 / 65	421	491	667	842	1017	1193	1368	1544	1719	1895
	65 / 55	303	354	480	606	733	859	985	1111	1238	1364
	45 / 40	130	152	206	260	314	368	422	477	531	585
PB 420 x 90	85 / 75	372	434	589	744	899	1054	1209	1364	1519	1674
	75 / 65	286	334	453	572	691	811	930	1049	1168	1288
	65 / 55	208	242	329	415	502	588	675	761	847	934
	45 / 40	91	106	144	181	219	257	295	333	370	408
PB 420 x 110	85 / 75	503	586	796	1005	1214	1424	1633	1843	2052	2261
	75 / 65	390	455	618	781	943	1106	1268	1431	1594	1756
	65 / 55	286	334	453	573	692	811	931	1050	1169	1289
	45 / 40	129	150	204	258	312	365	419	473	527	580
PB 420 x 140	85 / 75	638	744	1010	1276	1542	1807	2073	2339	2605	2871
	75 / 65	494	576	782	988	1194	1400	1606	1812	2018	2224
	65 / 55	361	422	572	723	874	1024	1175	1325	1476	1627
	45 / 40	161	188	256	323	390	457	525	592	659	726

The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convector, the cover grille, the connection type.

As a part of the product development, MINIB, a.s. reserves the right of construction and price adjustments.

ACCESSORIES

The standard delivery includes convector, standard frame and anchoring accessories. All other accessories (convector grille, connection accessories, control elements, etc.) must be ordered and specified separately.

COMPATIBLE GRILLES

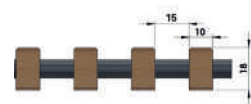
The grille must be ordered with the convector due to the modification of the convector construction. Standard grilles are sparse, transverse. If you are interested in LONGITUDINAL GRILLES, please contact your sales representative.

GRILLES - materials

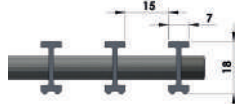


GRILLES - PROFILE

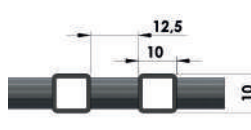
wood-rolling-sparse



AL-rolling-sparse



st. steel-rolling-sparse¹⁾



¹⁾ the grille must be ordered with the convector due to the modification of the convector construction

COMPATIBLE FRAMES

The frame is assembled from an aluminum profile with 45 degree joints. It comes in the same basic colors as the aluminum grilles. For other terminations of the convector trough, please contact your sales representative.

Standard frame (AL-aluminium) • Covering frame (AL-aluminium)



Convectors are designed to the CONCRETE FLOOR, in case of HOLLOW FLOOR installation, please consult with your sales representative.



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WATER CONNECTION ACCESSORIES

- connection **WITHOUT HEAD**
- connection **WITH ELECTROTHERMAL HEAD**
- connection **WITH CUSTOMER HEAD** (after consultation)

The type of connection accessories varies according to the size and direction of the connection. Connection accessories are packed separately and are not included in the standard convector delivery.

The table below shows compatible connection accessory sets. If you require non-standard or custom connection accessories, please contact your sales representative.

Connection set typically include:

- flex hoses
- ball valve or screw fitting
- thermostatic valve (only sets ready for head)

	WITHOUT head			READY for head		
	L1/R1	L2/R2	L3/R3	L1/R1	L2/R2	L3/R3
PB 200 x 90	PA1)	PE1)	PE1)	PI1)	PM1)	-
PB 200 x 110						
PB 200 x 140	PA1)	PE1)	PE1)	PI	PM	PM
PB 260 x 90	PA	PE	PE	PI	PM	PN
PB 260 x 110						
PB 260 x 140	PA	PE	PE	PI	PM	PM
PB 340 x 90						
PB 340 x 110						
PB 340 x 140						
PB 420 x 90						
PB 420 x 110						
PB 420 x 140						

The control of a free convection convector is performed by controlling the flow of the heating medium through the heat exchanger by a thermoelectric head on the inlet valve. On request, the convector can be prepared for the installation of a thermostatic head (although not recommended).

thermoelectric valve head



A floating contact thermostat, such as CH110 or UT15, is suitable for controlling thermoelectric heads.



CH110 thermostat



UT15 thermostat

