

HEAT OUTPUTS

Heat outputs [W] at $t_1/t_2/t_1$ = at 75/65/20 °C ($\Delta t=50$), 65/55/20 °C ($\Delta t=40$) and 55/45/20 °C ($\Delta t=30$)/EN 442

Outputs in the table are specified for the convector box height 200 mm

KORABASE Exclusive, KORABASE Economic								
Length	$t_1/t_2/t_1$ [°C]	BP 11	BV/BP 21	BV/BP 22	BV/BP 31	BV/BP 32	BV/BP 41	BV/BP 42
		Width x height 50 x 50	Width x height 100 x 50	Width x height 100 x 100	Width x height 150 x 50	Width x height 150 x 100	Width x height 200 x 50	Width x height 200 x 100
800	75/65/20	222	478	622	669	969	989	1314
	65/55/20	164	356	453	499	705	744	958
	55/45/20	112	244	302	342	468	516	638
1 000	75/65/20	285	613	800	870	1248	1274	1692
	65/55/20	211	457	584	648	908	959	1234
	55/45/20	143	313	388	444	602	665	822
1 200	75/65/20	348	748	979	1070	1526	1558	2070
	65/55/20	258	558	714	798	1110	1173	1510
	55/45/20	175	382	475	546	737	813	1005
1 400	75/65/20	411	883	1158	1271	1805	1843	2448
	65/55/20	305	659	845	947	1313	1387	1786
	55/45/20	207	451	562	648	871	962	1189
1 600	75/65/20	475	1019	1337	1471	2084	2128	2826
	65/55/20	351	759	975	1096	1516	1601	2062
	55/45/20	239	520	649	751	1006	1110	1373
1 800	75/65/20	538	1154	1516	1672	2363	2412	3204
	65/55/20	398	860	1105	1246	1719	1816	2337
	55/45/20	270	589	736	853	1140	1259	1556
2 000	75/65/20	601	1289	1695	1872	2641	2697	3582
	65/55/20	445	961	1236	1395	1921	2030	2613
	55/45/20	302	658	823	955	1275	1407	1740
2 200	75/65/20	664	1424	1874	2073	2920	2981	3961
	65/55/20	492	1062	1366	1545	2124	2244	2889
	55/45/20	334	727	909	1057	1409	1556	1924
2 400	75/65/20	727	1559	2052	2273	3199	3266	4339
	65/55/20	539	1163	1497	1694	2327	2458	3165
	55/45/20	366	796	996	1160	1544	1704	2107
2 600	75/65/20	790	1695	2231	2473	3478	3551	4717
	65/55/20	585	1263	1627	1843	2530	2672	3441
	55/45/20	398	865	1083	1262	1678	1853	2291
2 800	75/65/20	853	1830	2410	2674	3757	3835	5095
	65/55/20	632	1364	1758	1993	2733	2887	3716
	55/45/20	429	934	1170	1364	1813	2001	2475
3 000	75/65/20	917	1965	2589	2874	4035	4120	5473
	65/55/20	679	1465	1888	2142	2935	3101	3992
	55/45/20	461	1003	1257	1466	1948	2150	2658
Temperature exponent n [-]		1,3452	1,3162	1,4151	1,3176	1,4262	1,2735	1,4137

Dimensions are specified in mm BV = korabase reversible connection method; BP = KORABASE continuous connection method.



An example of conversion for another height of convector box see page 18 or www.licon.cz

An example of the conversion to another temperature gradient see page 18 or www.licon.cz

BASIC TECHNICAL PARAMETERS

KORABASE Exclusive, KORABASE Economic							
Type of exchanger	11	21	31	41	22	32	42
Temperature exponent n [-]	1,3452	1,3162	1,3176	1,2735	1,4151	1,4262	1,4137
K_M [-]	2,4594	5,9134	8,4942	14,5964	5,2713	7,8670	11,2041
Characteristic equation	$\varphi = K_M \cdot \Delta T^n$						
Convector weight [kg/m]	1,087	1,884	2,699	3,637	3,604	5,368	7,131
Water volume [l/m]	0,146	0,298	0,450	0,602	0,602	0,907	1,211
Effective length of exchanger [mm]	L-97	L-93	L-132	L-105	L-105	L-105	L-105

LIST OF BRACKETS

Floor brackets

- optional accessories
- as for the length of 1 800 mm and longer you have to order at least 3 pcs of stand brackets
- as a standard delivered black painted

Height of the floor bracket	75	125	75	125	
for type	11	11	21 and 22	21 and 22	
purchase order code	BVS-1-7	BVS-1-12	BVS-2-7	BVS-2-12	
Height of the floor bracket	75	125	75	125	
for type	31 and 32	31 and 32	41 and 42	41 and 42	
purchase order code	BVS-3-7	BVS-3-12	BVS-4-7	BVS-4-12	

Wall brackets

- optional accessories
- as for the length of 1 800 mm and you have to order at least 3 pcs of wall brackets
- as a standard delivered in RAL 9016

for type	11	21 and 22	31 and 32	41 and 42
purchase order code	BVK-1	BVK-2	BVK-3	BVK-4

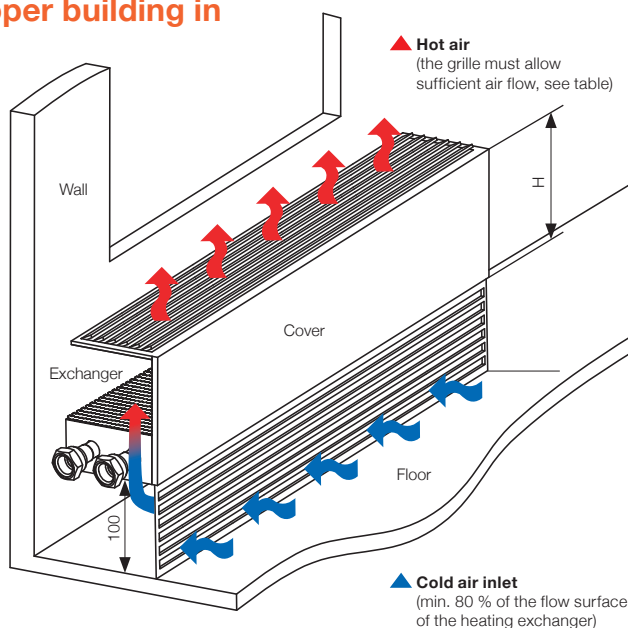
Dimensions are specified in mm.

ASSEMBLY

Installation instructions

For the proper operation and maximum output of the heat exchanger it is necessary to build a convector box sufficiently tight with the sufficiently permeable expiratory grill and the grill for the air inlet. The inlet grille size should make at least 80% of the flow surface of the heat exchanger.

Proper building in



We recommend mounting the exchanger on floor or wall brackets 10 cm above the final floor. For this purpose we offer 2 types of brackets. These may be in the floor execution (floor brackets) in heights of 7,5 and 12,5 cm or to be hung on the wall (wall brackets). The exchanger width determines the length of brackets (56,5 – 206,5 mm). Brackets are not a part of a standard delivery.

The heat output output of the exchanger depends on several main conditions: effective cover height, tightness of this cover (box), heated air input and flow area of the expiratory grille (see image). Generally, the higher the cover the higher heat output. The convector box and adjacent building structures must be resistant to the temperature created by the heat exchanger.

+ - x = **kH correction factor for the different H box height**

Correction factor	$t_1/t_2/t_1$	Box height H [mm]								
		200	250	300	350	400	450	500	550	600
kH	75/65/20	1,000	1,059	1,116	1,171	1,224	1,278	1,331	1,384	1,438

The box height H [mm] is measured from the lower edge of exchanger lamellas. Example: Conversion of the exchanger heat output Korabase 31, length 180 mm to the output in the box and height of 0,45 m. $Q = 1\,672 \times 1,278 = 2\,137\text{ W}$

Air outlet cover grille correction factor

% of the air inlet surface	> 75	60	50	40	30
correction factor	1,00	0,95	0,90	0,85	0,60

The air inlet surface is the flow area of the exchanger (width x length of the heating body) minus the area of the expiratory grille (all rates are given in %). The output of the respective convector is multiplied by the correction factor. Outputs of heat exchangers are measured including the expiratory grille, there fore it is not necessary to convert them further.

DATA FOR PURCHASE ORDER

KORABASE heat exchanger	Method of connection	Design	Length [cm]	Type	Surface finish
B	V = reversible P = continuous	E = Economic X = Exclusive	-	..	-0-
			...		00 39

Code example BVE-180-42-0-00

Economic heat exchanger, reversible, type 42 (4 horizontal and 2 vertical lines), length 1 800 mm, natural Alu/Cu colour.

Code example BPX-100-21-0-39

Exclusive heat exchanger, continuous, type 21 (2 horizontal and 1 vertical rows), length 1 000 mm, black painted.