

HEATING

COOLING

VENTILATION

RADIK[®]
STEEL PANEL RADIATORS

VKM8
Universal Panel Radiator

versatile
Heating · Cooling · Ventilation

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The quality marks are valid for
the range listed on page 16.



The panel radiators RADIK in version VKM8 are based on concept of the radiators in version VENTIL KOMPAKT. The radiators are equipped with inner distribution pipelines and inserted regulation valve. The original design of the inner distribution pipelines allows various connections of the radiators to the heating system. Primarily these radiators are designed for bottom middle connection. For the types 20, 21, 22 and 33 the distance between the bottom middle connection and the wall is always the same. However these radiators allow also bottom connections on the left or right sides. The pitch of the bottom connection is 50 mm.

Use

RADIK VKM8 steel panel radiators are designed for central heating systems in buildings with the highest allowed working pressure of 10 bar where water or water solutions are used as the heating medium. The highest allowed working temperature is 110 °C. These radiators are designed for single-pipe or twin-pipe systems with forced circulation. Radiators must be installed in a professional way in hot water systems which are carried out professionally according to VDI 2035 with regard to the protection against damage caused by corrosion and scale.

The following main water quality attributes must be adhered to:

- pH range 8.5 – 9.5 (this applies to systems which do not contain any Aluminium),
- overall water hardness (content of Ca + Mg ions) up to 1 mmol/ l,
- salinity within the range 300 – 500 µS/cm,
- oxygen content max. 0.1 mg/l.

Basic equipment

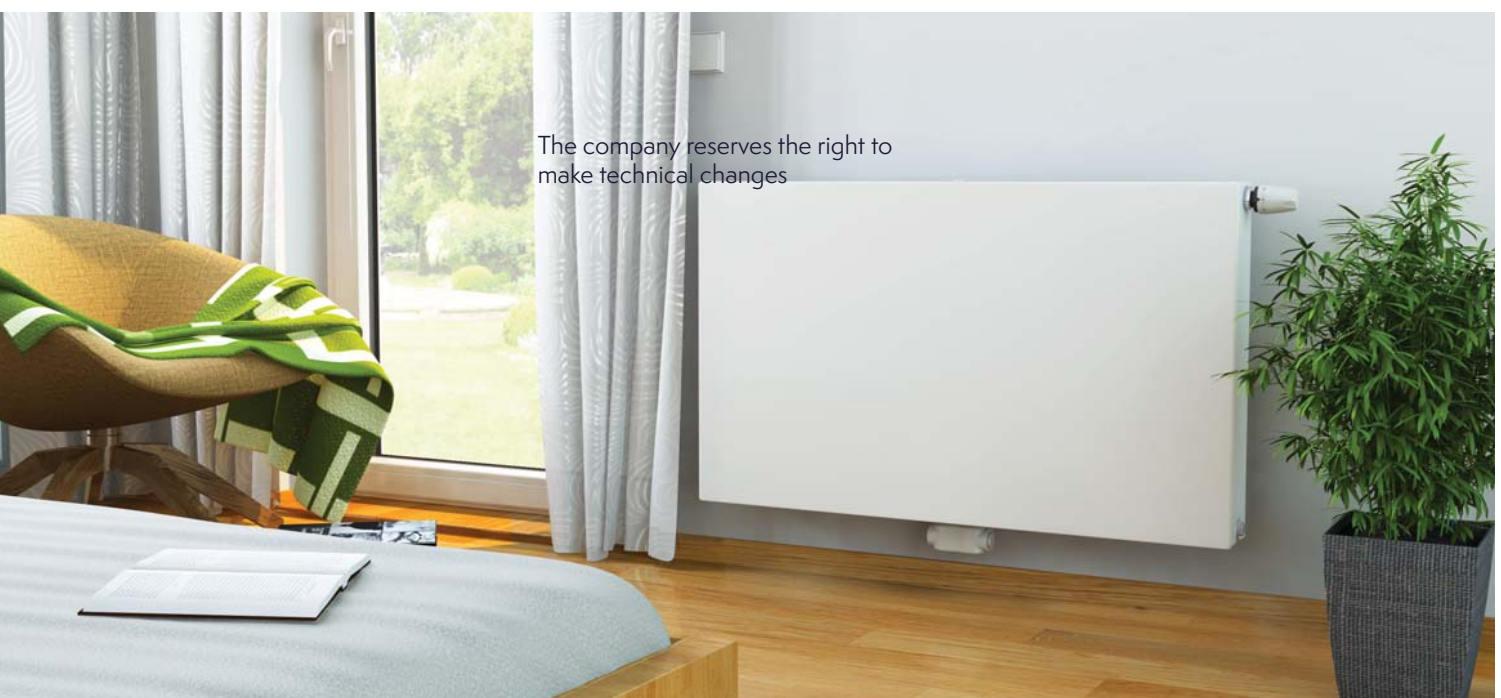
All radiators in the version VKM8 are equipped with an inserted 8-level distribution valve with stepless regulation, an air vent and a respective number of blanking plugs. Except of the type 10 all radiators are delivered with side covers and top grills.

Overview of models

RADIK VKM8 is a model with classically designed front plate with vertical and horizontal canals.

RADIK PLAN VKM8 is a model with flat front panel.

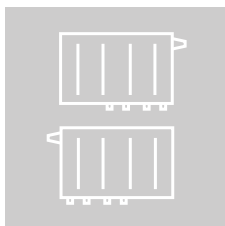
RADIK LINE VKM8 is a model with flat front panel with horizontal grooves.



The company reserves the right to make technical changes

ADVANTAGES

Variability and flexibility

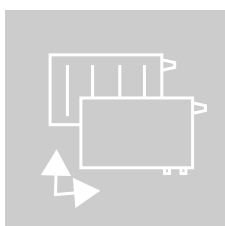


... as to connection to the heating system.

- same distance of the bottom middle connection from the wall for types 20, 21, 22 and 33
- various ways of connection
- connection thread 8 x G/2 inside
 - 4 x bottom ① ② ③ ④
 - 4 x side ⑤ ⑥ ⑦ ⑧

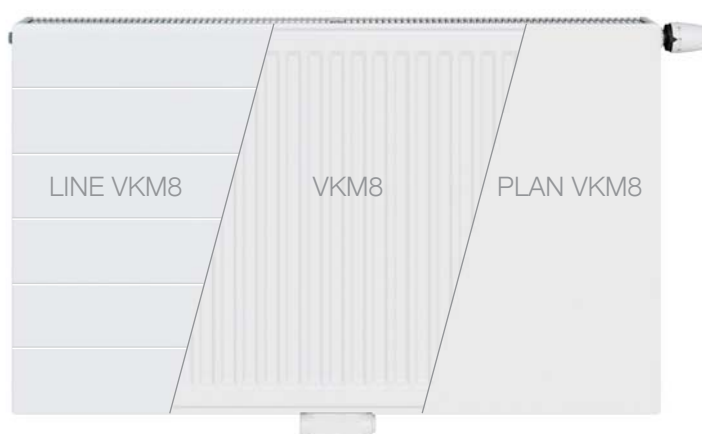


Variability



... as to selection of radiator design:

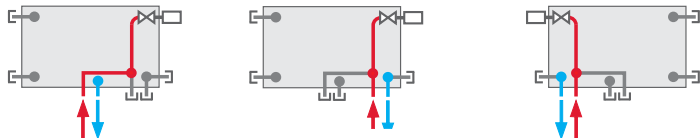
- with classical design of the front panel
- with flat front panel (version PLAN)
- with flat front panel with fine horizontal grooves (version LINE)
- radiators may be delivered also in other colours, see our colour card



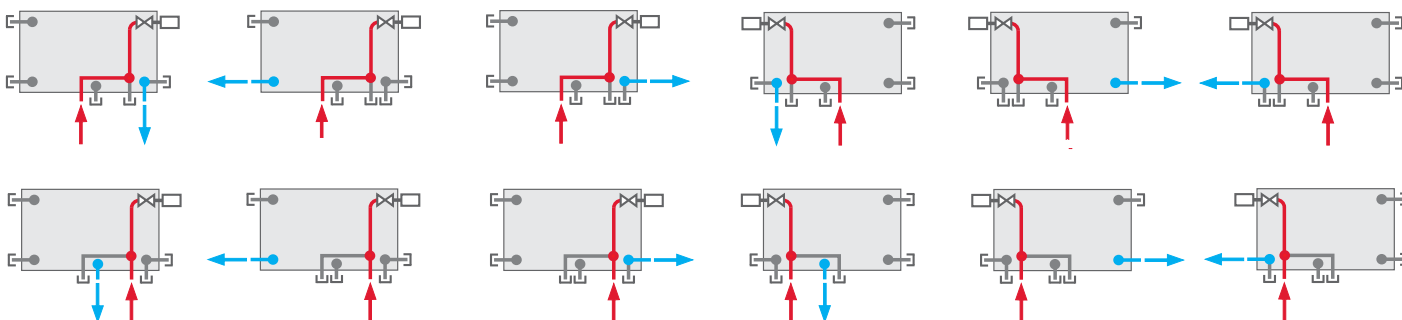


Model RADIK VKM8

Basic ways of connection

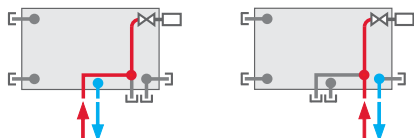


Other ways of connection

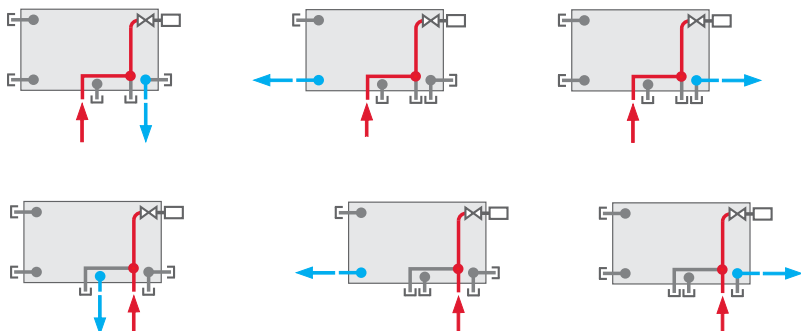


Models RADIK PLAN VKM8 and RADIK LINE VKM8

Basic ways of connection



Other ways of connection



GENERAL INFORMATION

When installing the RADIK panel radiators in version VKM8 it is necessary to preset the valve to such a position that the radiator will perform as calculated. The preset position shall be indicated in the project documentation. It is the responsibility of the installer to adhere to such preset and calculated values.

At the factory the valve is preset at level 8 and after rinsing and before the start of the heating test it must be set by a special key to the desired position

Example of calculation

Target value: level of valve setting
Values known: heat output
cooling of water
pressure loss of radiator with valve
heat capacity of water

Solution of the task: mass flow

level of presetting (see diagram):

Thermostatic heads

To set and to regulate the temperature in a room it is necessary to fit a thermostatic head on the RADIK VKM8 radiators. For direct fitting only thermostatic heads with connecting thread M 30 x 1.5 can be used .



$$\begin{aligned} Q &= 1135 \text{ W} \\ t_1 - t_2 &= 15 \text{ K (65/50 °C)} \\ \Delta p &= 30 \text{ mbar} \\ c &= 1.163 \text{ Wh/kg.K} \end{aligned}$$
$$m = \frac{Q}{c \cdot (t_1 - t_2)} = \frac{1135}{1.163 \cdot 15} = 65 \text{ kg/h}$$

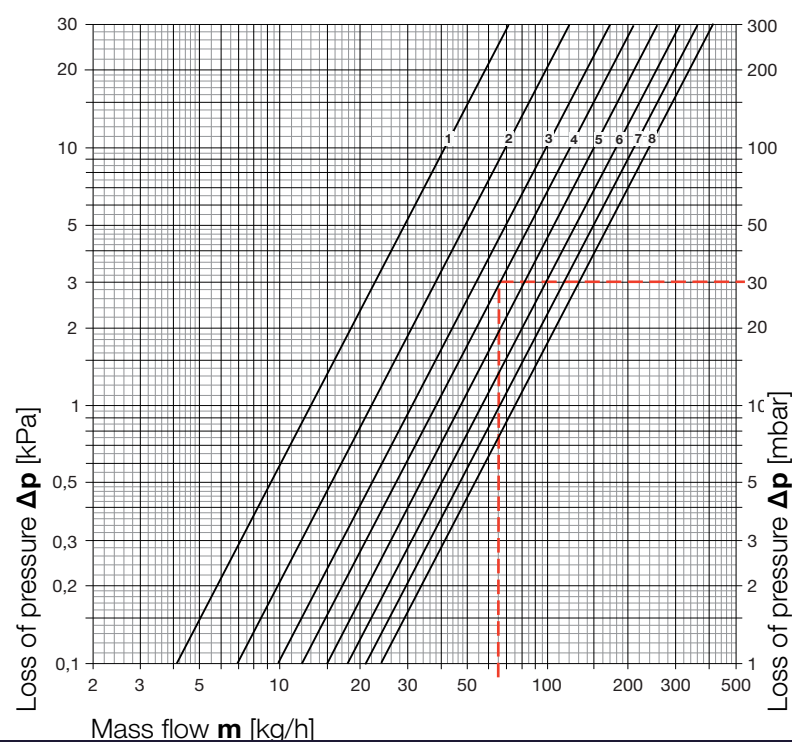
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Table

Radiators in version VENTIL KOMPAKT without connecting fittings		Level of the valve setting								Highest allowed working temperature [°C]	Highest allowed working pressure [bar]
		1	2	3	4	5	6	7	8		
Valve with eight levels of setting and with a thermostatic head	k_v [m³/h]	0.13	0.22	0.31	0.38	0.47	0.57	0.66	0.75	110	10
	k_{vs} [m³/h]	0.16	0.27	0.38	0.43	0.65	0.98	1.23	1.43		

The indicated values of k_v comply with proportionality interval of 2 K.

Level of presetting

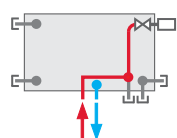




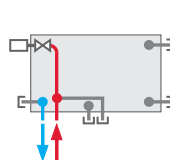
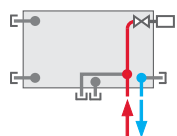
Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
Depth B	
Type 10 VKM8	47 mm
Type 11 VKM8	63 mm
Type 20 VKM8	66 mm
Type 21 VKM8	66 mm
Type 22 VKM8	100 mm
Type 33 VKM8	155 mm
Connecting pitch	50 mm
Connecting thread	8 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	bottom middle right / left bottom

Examples of connection to the heating system



bottom middle
 $\varphi = 1$



right / left bottom
 $\varphi = 1$

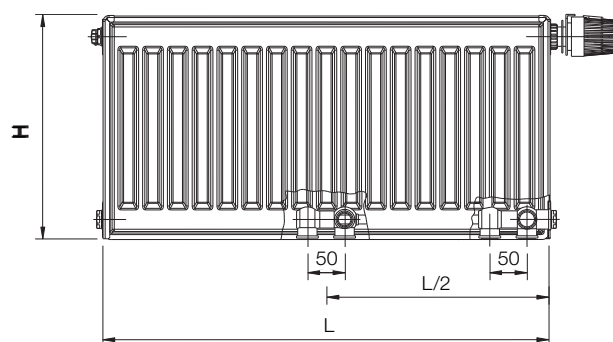
(as for other possible
connections see No. 5)

Description

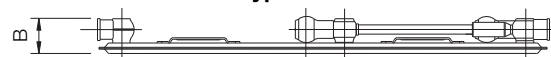
Model **RADIK VKM8** is a panel heating radiator in version **VENTIL KOMPAKT** which allows **bottom middle or bottom right connection** to the heating system. As for types 20, 21, 22 and 33 there are no hangers welded to the back side and thus it is possible to turn the radiator and to use its **bottom left connection**. As for types 10 and 11 two upper and two lower hangers are fixed to the back side, the radiators with length of 1800 mm and more are equipped with six welded hangers.

The panel radiators RADIK VKM8 are designed as modern components of the heating systems with forced circulation of the heating media and with horizontal distribution pipes located below the radiators in the floor, in the wall or along the wall and covered with decorative strips.

Overview of types



Type 10 VKM8



Type 11 VKM8



Type 20 VKM8



Type 21 VKM8



Type 22 VKM8



Type 33 VKM8



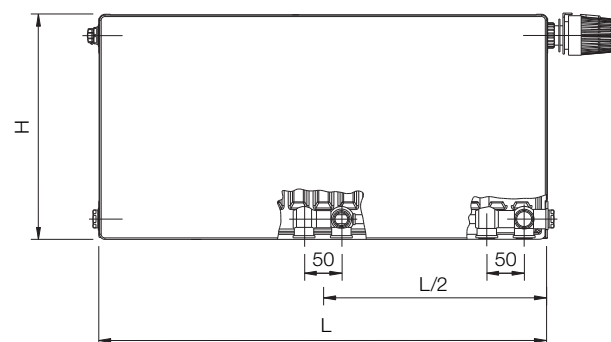
RADIK PLAN VKM8



Description

Model **RADIK PLAN VKM8** is a panel radiator with flat front panel (version PLAN) and at the same time it is in version VENTIL KOMPAKT. This design allows **bottom middle or bottom right connection** of the radiator to the heating system with forced circulation. Two upper and two lower hangers are welded to the back side of the radiator, the radiators with length of 1800 mm and more are equipped with six welded hangers.

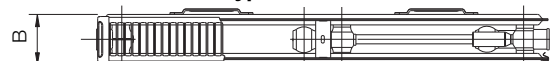
Overview of types



Type 11 PLAN VKM8



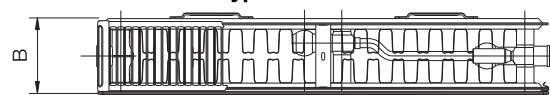
Type 20 PLAN VKM8



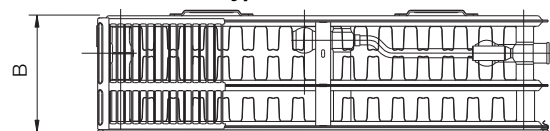
Type 21 PLAN VKM8



Type 22 PLAN VKM8



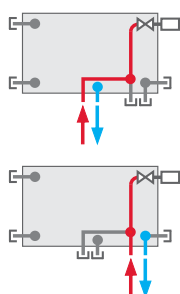
Type 33 PLAN VKM8



Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B	
Type 11 PLAN VKM8	65 mm
Type 20 PLAN VKM8	68 mm
Type 21 PLAN VKM8	68 mm
Type 22 PLAN VKM8	102 mm
Type 33 PLAN VKM8	157 mm
Connecting pitch	50 mm
Connecting thread	8 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	bottom middle

Examples of connection to the heating system



bottom middle
 $\varphi = 1$

right bottom
 $\varphi = 1$

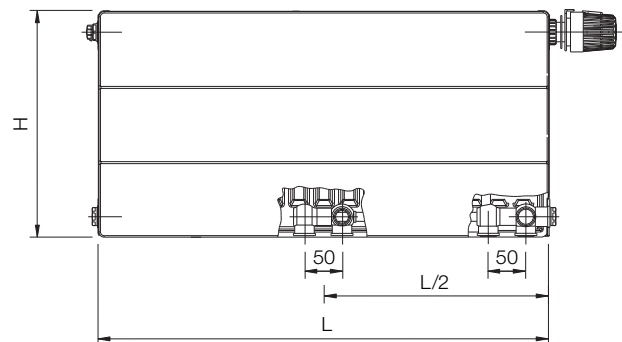
(as for other possible
connections see page No. 5)



Description

Model **RADIK LINE VKM8** is a panel radiator with flat front panel with fine grooves (version LINE) and at the same time it is in version VENTIL KOMPAKT. This design allows **bottom middle or bottom right connection** of the radiator to the heating system with forced circulation. Two upper and two lower hangers are welded to the back side of the radiator, the radiators with length of 1800 mm and more are equipped with six welded hangers.

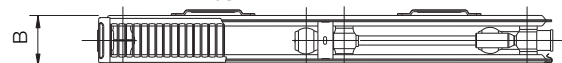
Overview of types



Type 11 LINE VKM8



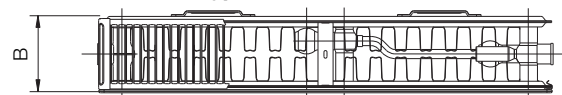
Type 20 LINE VKM8



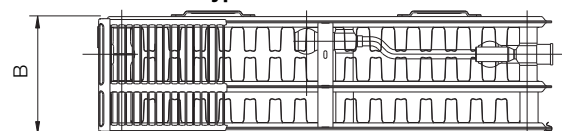
Type 21 LINE VKM8



Type 22 LINE VKM8



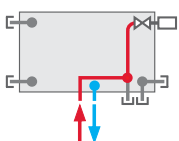
Type 33 LINE VKM8



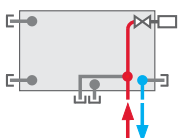
Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B	
Type 11 LINE VKM8	65 mm
Type 20 LINE VKM8	68 mm
Type 21 LINE VKM8	68 mm
Type 22 LINE VKM8	102 mm
Type 33 LINE VKM8	157 mm
Connecting pitch	50 mm
Connecting thread	8 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	bottom middle right bottom

Examples of connection to the heating system



bottom middle
 $\varphi = 1$



right bottom
 $\varphi = 1$

(as for other possible
connections see page No. 6)

RADIK VKM8

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 VKM8						Type 11 VKM8						Type 20 VKM8		
Length L [mm]	t ₁ /t ₂ [°C]	Height H [mm]														
		300	400	500	600	700	900	300	400	500	600	700	900	500	600	700
500	90/70	237	302	363	423	479	588	335	431	526	622	718	912	593	686	778
	75/65	188	238	286	333	377	461	267	342	416	490	565	716	467	540	611
	70/55	152	193	231	269	304	371	217	277	337	395	456	577	377	436	493
	55/45	97	122	147	170	192	233	140	178	214	250	288	363	239	276	310
600	90/70	285	362	436	507	575	705	402	517	632	747	862	1095	711	824	934
	75/65	225	286	343	399	452	553	320	410	499	587	677	859	560	648	733
	70/55	182	231	277	322	365	445	261	333	404	474	547	692	453	523	591
	55/45	116	147	176	204	230	280	168	213	257	300	345	436	287	331	372
700	90/70			508	592	671	823	469	603	737	871	1005	1277	830	961	1089
	75/65			400	466	527	645	373	478	582	685	790	1002	654	756	855
	70/55			324	376	425	520	304	388	471	553	638	808	528	610	690
	55/45			205	238	268	327	196	249	300	350	403	508	335	386	435
800	90/70			581	676	766	941	536	690	842	995	1149	1460	949	1098	1245
	75/65			458	532	602	738	426	546	665	783	903	1146	747	864	978
	70/55			370	430	486	594	348	444	539	632	729	923	604	698	788
	55/45			235	272	307	373	224	285	343	400	460	581	383	441	497
900	90/70			653	761	862	1058	603	776	947	1120	1293	1642	1067	1236	1401
	75/65			515	599	678	830	480	615	748	881	1016	1289	841	972	1100
	70/55			416	483	547	668	391	499	606	712	820	1038	679	785	887
	55/45			264	306	345	420	252	320	386	450	518	654	431	496	559
1000	90/70			726	845	958	1176	670	862	1053	1244	1436	1825	1186	1373	1556
	75/65			572	665	753	922	533	683	831	979	1129	1432	934	1080	1222
	70/55			462	537	608	742	434	555	673	791	911	1154	755	872	985
	55/45			293	340	383	467	280	356	429	500	575	726	478	551	621
1100	90/70			799	930	1054		737	948	1158	1369	1580	2007	1304	1510	1712
	75/65			629	732	828		586	751	914	1077	1242	1575	1027	1188	1344
	70/55			509	591	668		478	610	740	870	1002	1269	830	959	1084
	55/45			323	374	422		308	391	471	550	633	799	526	607	683
1200	90/70			871	1014	1150		805	1035	1263	1493	1723	2190	1423	1647	1867
	75/65			686	798	904		640	820	997	1175	1355	1718	1121	1296	1466
	70/55			555	644	729		521	666	808	949	1093	1385	906	1046	1182
	55/45			352	408	460		336	427	514	600	690	871	574	662	745
1400	90/70			1016	1183	1341		939	1207	1474	1742	2011	2555	1660	1922	2179
	75/65			801	931	1054		746	956	1163	1371	1581	2005	1308	1512	1711
	70/55			647	752	851		608	777	942	1107	1275	1615	1057	1221	1379
	55/45			411	476	537		392	498	600	700	805	1017	670	772	869
1600	90/70			1162	1352	1533		1073	1379	1684	1991	2298	2919	1897	2197	2490
	75/65			915	1064	1205		853	1093	1330	1566	1806	2291	1494	1728	1955
	70/55			740	859	972		695	888	1077	1265	1458	1846	1208	1395	1576
	55/45			469	544	614		448	569	686	800	920	1162	766	882	993
1800	90/70			1307	1521	1725		1207	1552	1895	2240	2585		2134	2471	2801
	75/65			1030	1197	1355		959	1229	1496	1762	2032		1681	1944	2200
	70/55			832	967	1094		782	999	1212	1423	1640		1359	1570	1773
	55/45			528	611	690		504	640	771	900	1036		861	993	1117
2000	90/70			1452	1690	1916		1341	1724	2105	2489	2872		2372	2746	3112
	75/65			1144	1330	1506		1066	1366	1662	1958	2258		1868	2160	2444
	70/55			925	1074	1215		869	1110	1346	1581	1822		1510	1744	1970
	55/45			586	679	767		561	711	857	1000	1151		957	1103	1242
2300	90/70									2421	2862	3303				
	75/65									1911	2252	2597				
	70/55									1548	1818	2095				
	55/45									986	1150	1323				
2600	90/70															
	75/65															
	70/55															
	55/45															
3000	90/70															
	75/65															
	70/55															
	55/45															



HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 VKM8						Type 22 VKM8						Type 33 VKM8						
Length L [mm]	t _f /t ₂ [°C]	Height H [mm]																		
		300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900	
500	90/70	475	597	713	828	939	1159	602	765	921	1072	1218	1496				1324	1540	1743	2109
	75/65	374	469	559	647	733	901	475	602	724	840	953	1168				1038	1206	1362	1643
	70/55	302	378	450	519	588	720	385	486	583	676	765	936				835	969	1093	1315
	55/45	191	238	282	325	366	445	245	308	368	424	479	583				524	607	682	816
600	90/70	570	716	856	993	1127	1390	722	918	1106	1287	1461	1796				1588	1848	2092	2531
	75/65	449	562	671	776	880	1081	570	722	868	1008	1143	1401				1245	1447	1634	1972
	70/55	363	453	540	623	705	864	462	584	700	811	918	1123				1002	1163	1312	1578
	55/45	229	286	339	389	439	535	294	370	441	508	574	699				629	728	819	979
700	90/70	665	835	999	1159	1315	1622	843	1071	1290	1501	1705	2095				1853	2156	2440	2953
	75/65	524	656	783	906	1026	1261	665	843	1013	1176	1334	1635				1453	1688	1907	2300
	70/55	423	529	630	727	823	1008	538	681	817	946	1071	1310				1169	1357	1530	1841
	55/45	268	333	395	454	512	624	343	431	515	593	670	816				734	849	955	1142
800	90/70	760	955	1142	1324	1503	1854	963	1224	1474	1716	1948	2394	1354	1749	2118	2464	2789	3375	
	75/65	598	750	894	1035	1173	1442	760	963	1158	1344	1524	1868	1065	1373	1660	1929	2179	2629	
	70/55	483	604	720	831	940	1152	615	778	933	1081	1224	1497	859	1106	1336	1550	1749	2104	
	55/45	306	381	451	519	585	713	392	493	588	678	766	932	543	697	839	971	1092	1305	
900	90/70	855	1074	1284	1490	1691	2085	1083	1376	1658	1930	2192	2693	1524	1967	2382	2772	3137	3797	
	75/65	673	843	1006	1165	1319	1622	855	1084	1302	1512	1715	2102	1198	1544	1868	2170	2452	2957	
	70/55	544	680	810	935	1058	1296	692	875	1050	1216	1377	1685	967	1245	1503	1744	1968	2367	
	55/45	344	428	508	584	659	802	440	554	662	763	862	1049	611	784	944	1092	1228	1468	
1000	90/70	950	1193	1427	1655	1879	2317	1204	1529	1843	2145	2435	2993	1693	2186	2647	3080	3486	4219	
	75/65	748	937	1118	1294	1466	1802	950	1204	1447	1680	1905	2335	1331	1716	2075	2411	2724	3286	
	70/55	604	755	899	1039	1175	1440	769	973	1166	1351	1531	1872	1074	1383	1670	1938	2186	2630	
	55/45	382	476	564	649	732	891	489	616	735	847	957	1165	679	871	1049	1213	1365	1631	
1100	90/70	1045	1313	1570	1821	2066	2549	1324	1682	2027	2359	2679	3292	1862	2404	2912	3389	3835	4641	
	75/65	823	1031	1230	1423	1613	1982	1045	1324	1592	1848	2096	2569	1464	1888	2283	2652	2996	3615	
	70/55	665	831	989	1143	1293	1584	846	1070	1283	1486	1684	2059	1182	1521	1837	2132	2405	2893	
	55/45	421	524	621	714	805	980	538	677	809	932	1053	1282	746	958	1154	1335	1501	1795	
1200	90/70	1140	1432	1712	1986	2254	2781	1445	1835	2211	2574	2922	3591	2031	2623	3177	3697	4183	5063	
	75/65	898	1124	1342	1553	1759	2162	1140	1445	1736	2016	2286	2802	1597	2059	2490	2893	3269	3943	
	70/55	725	906	1079	1247	1410	1728	923	1167	1400	1622	1837	2246	1289	1660	2004	2326	2624	3156	
	55/45	459	571	677	779	878	1069	587	739	882	1017	1149	1398	814	1045	1259	1456	1638	1958	
1400	90/70	1331	1671	1998	2318	2630	3244	1685	2141	2580	3003	3409	4190	2370	3060	3706	4313	4880	5907	
	75/65	1047	1312	1565	1812	2052	2523	1330	1686	2026	2352	2667	3269	1863	2402	2905	3375	3814	4600	
	70/55	846	1058	1259	1455	1645	2016	1077	1362	1633	1892	2143	2620	1504	1936	2338	2713	3061	3682	
	55/45	535	666	790	909	1024	1247	685	862	1029	1186	1340	1631	950	1220	1468	1699	1911	2284	
1600	90/70	1521	1909	2283	2649	3006	3707	1926	2447	2948	3432	3896	4788	2709	3497	4235	4929	5578	6750	
	75/65	1197	1499	1789	2070	2346	2883	1520	1926	2315	2688	3048	3736	2130	2746	3320	3858	4358	5258	
	70/55	967	1209	1439	1662	1880	2304	1231	1556	1866	2162	2449	2995	1719	2213	2672	3101	3498	4208	
	55/45	612	762	903	1038	1171	1425	783	985	1176	1356	1532	1864	1086	1394	1678	1942	2184	2610	
1800	90/70	1711	2148	2569	2980	3381		2167	2753	3317	3861	4383		3047	3934	4765	5545	6275		
	75/65	1346	1687	2012	2329	2639		1710	2167	2605	3024	3429		2396	3089	3735	4340	4903		
	70/55	1088	1360	1619	1870	2115		1385	1751	2100	2432	2755		1934	2489	3006	3488	3935		
	55/45	688	857	1016	1168	1317		881	1109	1323	1525	1723		1221	1568	1888	2184	2457		
2000	90/70	1901	2386	2854	3311	3757		2408	3059	3685	4290	4870		3386	4372	5294	6161	6972		
	75/65	1496	1874	2236	2588	2932		1900	2408	2894	3360	3810		2662	3432	4150	4822	5448		
	70/55	1208	1511	1799	2078	2350		1539	1946	2333	2703	3061		2148	2766	3340	3876	4373		
	55/45	765	952	1129	1298	1464		979	1232	1470	1695	1915		1357	1742	2098	2427	2730		
2300	90/70			3282	3807	4321		2769	3518	4238	4933	5601		3894	5027					
	75/65			2571	2976	3372		2185	2769	3328	3864	4382		3061	3947					
	70/55			2069	2390	2703		1769	2237	2683	3108	3520		2471	3181					
	55/45			1298	1493	1683		1126	1417	1691	1949	2202		1561	2003					
2600	90/70							3130	3977	4791	5577	6332		4401	5683					
	75/65							2470	3130	3762	4368	4953		3461	4462					
	70/55							2000	2529	3033	3513	3979		2793	3596					
	55/45							1272	1601	1911	2203	2489		1764	2265					
3000	90/70							3611	4588	5528	6434	7306		5079	6557					
	75/65							2850	3612	4341	5040	5715		3993	5148					
	70/55							2308	2918	3499	4054	4592		3223	4149					
	55/45							1468	1848	2205	2542	2872		2036	2613					

RADIK PLAN VKM8, LINE VKM8

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 11 PLAN VKM8 Type 11 LINE VKM8						Type 20 PLAN VKM8 Type 20 LINE VKM8			Type 21 PLAN VKM8 Type 21 LINE VKM8					
Length L [mm]	t _i /t ₂ [°C]	Height H [mm]														
		300	400	500	600	700	900	500	600	700	300	400	500	600	700	900
500	90/70	334	415	492	567	641	784	536	613	687	456	574	683	783	873	1035
	75/65	265	329	390	449	506	616	424	485	543	360	452	536	613	684	809
	70/55	216	268	317	364	409	496	344	393	439	291	365	432	493	549	649
	55/45	139	172	203	233	260	313	219	250	279	185	231	272	309	344	405
600	90/70	400	498	591	680	769	940	644	736	825	548	689	819	939	1048	1242
	75/65	318	395	468	538	607	739	509	581	651	432	542	643	736	820	970
	70/55	259	321	380	437	491	596	413	471	527	350	438	518	592	659	778
	55/45	167	206	244	279	312	375	263	300	335	222	277	327	371	413	486
700	90/70	467	581	689	794	897	1097	751	859	962	639	804	956	1096	1223	1449
	75/65	371	461	546	628	708	862	594	678	760	504	633	750	858	957	1132
	70/55	302	375	444	509	573	695	481	550	615	408	511	605	690	769	908
	55/45	195	241	284	326	364	438	307	351	391	259	323	381	433	481	566
800	90/70	534	664	788	907	1025	1254	858	981	1100	730	919	1092	1252	1397	1656
	75/65	424	526	624	718	809	985	678	775	868	576	723	858	981	1094	1294
	70/55	345	428	507	582	655	794	550	628	703	466	584	691	789	879	1038
	55/45	223	275	325	372	417	501	351	401	447	296	370	435	495	550	647
900	90/70	600	746	886	1021	1153	1411	965	1104	1237	822	1034	1229	1409	1572	1863
	75/65	477	592	702	807	910	1108	763	872	977	648	814	965	1103	1230	1455
	70/55	389	482	570	655	737	893	619	707	791	524	657	778	888	989	1168
	55/45	250	310	365	419	469	563	395	451	503	333	416	490	557	619	728
1000	90/70	667	829	985	1134	1281	1567	1073	1226	1375	913	1149	1365	1565	1747	2070
	75/65	530	658	780	897	1011	1231	848	969	1085	720	904	1072	1226	1367	1617
	70/55	432	535	634	728	819	993	688	785	879	583	730	864	986	1099	1297
	55/45	278	344	406	465	521	626	439	501	559	370	462	544	619	688	809
1100	90/70	734	912	1083	1247	1409	1724	1180	1349	1512	1004	1264	1502	1722	1921	2277
	75/65	583	724	858	987	1112	1354	933	1066	1194	792	994	1179	1349	1504	1779
	70/55	475	589	697	801	900	1092	756	864	966	641	803	950	1085	1209	1427
	55/45	306	378	447	512	573	688	483	551	615	407	508	599	680	757	890
1200	90/70	800	995	1182	1361	1537	1881	1287	1472	1650	1095	1379	1638	1878	2096	2484
	75/65	636	790	936	1076	1213	1477	1018	1163	1302	864	1085	1286	1471	1640	1940
	70/55	518	642	760	873	982	1191	825	943	1054	699	876	1037	1183	1318	1557
	55/45	334	413	487	558	625	751	527	601	671	444	554	653	742	825	971
1400	90/70	934	1161	1378	1588	1794	2194	1502	1717	1925	1278	1608	1912	2191	2445	2898
	75/65	742	921	1092	1256	1415	1723	1187	1357	1519	1008	1266	1501	1716	1914	2264
	70/55	604	749	887	1019	1146	1390	963	1100	1230	816	1022	1210	1381	1538	1816
	55/45	389	482	569	651	729	876	614	701	782	518	647	762	866	963	1133
1600	90/70	1067	1327	1575	1814	2050	2508	1716	1962	2200	1461	1838	2185	2504	2795	3312
	75/65	848	1053	1248	1435	1618	1970	1357	1550	1736	1152	1446	1715	1962	2187	2587
	70/55	691	856	1014	1165	1310	1588	1100	1257	1406	932	1168	1383	1578	1758	2076
	55/45	445	550	650	744	833	1001	702	801	894	592	739	871	990	1101	1295
1800	90/70	1201	1493	1772	2041	2306		1931	2208	2475	1643	2068	2458	2817	3144	
	75/65	954	1184	1404	1615	1820		1526	1744	1953	1296	1627	1930	2207	2461	
	70/55	777	964	1141	1310	1473		1238	1414	1581	1049	1314	1555	1775	1978	
	55/45	501	619	731	837	937		790	901	1006	666	831	980	1113	1238	
2000	90/70	1334	1659	1969	2268	2562		2146	2453	2750	1826	2298	2731	3130	3494	
	75/65	1060	1316	1560	1794	2022		1696	1938	2170	1440	1808	2144	2452	2734	
	70/55	863	1071	1267	1456	1637		1375	1571	1757	1165	1460	1728	1972	2197	
	55/45	556	688	812	930	1041		878	1001	1118	741	924	1089	1237	1376	

RADIK PLAN VKM8, LINE VKM8



HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 22 PLAN VKM8 Type 22 LINE VKM8						Type 33 PLAN VKM8 Type 33 LINE VKM8					
Length L [mm]	t ₁ /t ₂ [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
500	90/70	578	738	889	1032	1167	1416			1287	1489	1688	2069
	75/65	457	583	700	811	915	1108			1011	1171	1324	1616
	70/55	371	472	566	654	737	889			816	945	1066	1296
	55/45	237	300	358	412	463	556			515	597	671	808
600	90/70	693	886	1067	1238	1400	1700			1544	1786	2025	2483
	75/65	548	699	840	973	1098	1329			1213	1405	1589	1939
	70/55	445	566	679	784	884	1067			979	1134	1280	1555
	55/45	284	360	430	494	556	667			618	716	805	970
700	90/70	809	1033	1245	1445	1633	1983			1801	2084	2363	2896
	75/65	640	816	980	1135	1281	1551			1415	1639	1854	2262
	70/55	519	660	792	915	1032	1245			1142	1323	1493	1814
	55/45	332	420	501	577	648	778			720	836	939	1131
800	90/70	924	1181	1423	1651	1867	2266	1363	1720	2058	2382	2700	3310
	75/65	731	932	1120	1297	1464	1772	1070	1351	1618	1873	2118	2585
	70/55	593	755	905	1046	1179	1423	862	1089	1305	1512	1706	2073
	55/45	379	480	573	659	741	889	543	687	823	955	1073	1293
900	90/70	1040	1329	1600	1857	2100	2550	1533	1936	2316	2680	3038	3724
	75/65	823	1049	1260	1459	1647	1994	1203	1520	1820	2107	2383	2908
	70/55	667	849	1018	1176	1326	1601	970	1226	1468	1700	1920	2333
	55/45	426	540	645	742	834	1001	610	772	926	1074	1207	1454
1000	90/70	1156	1476	1778	2064	2333	2833	1703	2151	2573	2977	3375	4138
	75/65	914	1165	1400	1621	1830	2215	1337	1689	2022	2341	2648	3231
	70/55	742	943	1131	1307	1474	1779	1077	1362	1631	1889	2133	2592
	55/45	474	600	716	824	926	1112	678	858	1029	1194	1341	1616
1100	90/70	1271	1624	1956	2270	2567	3116	1874	2366	2830	3275	3713	4551
	75/65	1005	1282	1540	1783	2013	2437	1471	1858	2224	2575	2913	3554
	70/55	816	1038	1244	1438	1621	1957	1185	1498	1794	2078	2346	2851
	55/45	521	660	788	906	1019	1223	746	944	1132	1313	1476	1777
1200	90/70	1387	1772	2134	2476	2800	3399	2044	2581	3088	3573	4051	4965
	75/65	1097	1398	1680	1945	2196	2658	1604	2027	2426	2809	3178	3877
	70/55	890	1132	1357	1569	1768	2135	1293	1634	1957	2267	2559	3110
	55/45	569	720	860	989	1112	1334	814	1030	1235	1432	1610	1939
1400	90/70	1618	2067	2490	2889	3267	3966	2385	3011	3602	4168	4726	5793
	75/65	1280	1631	1960	2269	2562	3101	1872	2365	2831	3277	3707	4523
	70/55	1038	1321	1584	1830	2063	2490	1508	1906	2284	2645	2986	3628
	55/45	663	840	1003	1154	1297	1557	950	1202	1441	1671	1878	2262
1600	90/70	1849	2362	2845	3302	3733	4532	2725	3441	4117	4764	5401	6620
	75/65	1462	1864	2240	2594	2928	3544	2139	2702	3235	3746	4237	5170
	70/55	1187	1509	1810	2091	2358	2846	1724	2179	2610	3023	3413	4147
	55/45	758	960	1146	1319	1482	1779	1085	1373	1647	1910	2146	2585
1800	90/70	2080	2657	3201	3715	4200		3066	3871	4632	5359	6076	
	75/65	1645	2097	2520	2918	3294		2407	3040	3640	4214	4766	
	70/55	1335	1698	2036	2353	2653		1939	2451	2936	3401	3839	
	55/45	853	1080	1289	1483	1667		1221	1545	1853	2148	2415	
2000	90/70	2311	2953	3556	4127	4667		3407	4301	5146	5955	6751	
	75/65	1828	2330	2800	3242	3660		2674	3378	4044	4682	5296	
	70/55	1483	1887	2262	2614	2947		2155	2723	3262	3779	4266	
	55/45	948	1200	1433	1648	1853		1357	1717	2058	2387	2683	

BASIC TECHNICAL PARAMETERS

RADIK VKM8

		Type 10						Type 11						Type 20		
Height H [mm]		300	400	500	600	700	900	300	400	500	600	700	900	500	600	700
Nominal heat output [W/m]		375	476	572	665	753	922	533	683	831	979	1129	1432	934	1080	1222
Temperature exponent n [-]		1.2945	1.3013	1.3081	1.3149	1.3210	1.3331	1.2583	1.2772	1.2962	1.3151	1.3198	1.3291	1.3093	1.3160	1.3259
K _T	c ₀	0.01616400		1.32460000		0.03737600		1.27140000		0.05474000		1.30360000				
b	c ₁	0.85720000		-0.00001748		0.79480000		0.00004924		0.73930000		0.00002583				
Radiator weight [kg/m]		6.6	8.4	10.4	12.4	15.2	17.7	10.9	13.3	16.6	19.7	23.6	29.3	21.2	25.3	29.5
Water volume [l/m]		1.9	2.3	2.7	3.1	3.5	4.5	1.9	2.3	2.7	3.1	3.5	4.5	5.3	6.2	7.0

RADIK VKM8

		Type 21						Type 22						Type 33					
Height H [mm]		300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]		748	937	1118	1294	1466	1802	950	1204	1447	1680	1905	2335	1331	1716	2075	2411	2724	3286
Temperature exponent n [-]		1.3135	1.3259	1.3384	1.3508	1.3602	1.3791	1.2985	1.3122	1.3260	1.3397	1.3468	1.3609	1.3190	1.3273	1.3357	1.3440	1.3529	1.3708
K _T	c ₀	0.05250800		1.33530000		0.04268400		1.33820000		0.02273700		1.39030000							
b	c ₁	0.75670000		0.00002048		0.83910000		-0.00000944		0.98690000		-0.00007695							
Radiator weight [kg/m]		15.1	19.6	23.0	27.3	31.5	41.2	17.8	23.5	26.6	32.0	37.1	48.1	26.3	34.8	39.8	47.7	55.3	71.9
Water volume [l/m]		3.7	4.5	5.3	6.2	7.0	8.7	3.7	4.5	5.3	6.2	7.1	8.9	5.4	6.7	8.0	9.3	10.5	13.0

RADIK PLAN VKM8, LINE VKM8

		Type 11						Type 20			Type 21					
Height H [mm]		300	400	500	600	700	900	500	600	700	300	400	500	600	700	900
Nominal heat output [W/m]		530	658	780	897	1011	1231	848	969	1085	720	904	1072	1226	1367	1617
Temperature exponent n [-]		1.2617	1.2698	1.2778	1.2859	1.2989	1.3249	1.2895	1.2924	1.2988	1.3019	1.3144	1.3268	1.3393	1.3446	1.3553
K _T	c ₀	0.05473850		1.27950000		0.06835010		1.28816000		0.02292700		1.37408000				
b	c ₁	0.72786000		0.00001831		0.70185000		0.00001277		0.88738300		-0.00007040				
Radiator weight [kg/m]		13.4	16.6	20.6	24.4	29.1	37.0	25.2	30	35	17.6	22.9	27.0	32.0	37	48.8
Water volume [l/m]		1.9	2.3	2.7	3.1	3.5	4.5	5.3	6.2	7.0	3.7	4.5	5.3	6.2	7.0	8.7

RADIK PLAN VKM8, LINE VKM8

		Type 22						Type 33					
Height H [mm]		300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]		914	1165	1400	1621	1830	2215	1337	1689	2022	2341	2648	3231
Temperature exponent n [-]		1.2863	1.2990	1.3117	1.3244	1.3327	1.3493	1.3284	1.3252	1.3219	1.3187	1.3313	1.3565
K _T	c ₀	0.02809110		1.34778000		0.06322600		1.34170000					
b	c ₁	0.90711100		-0.00004768		0.82820000		-0.00001160					
Radiator weight [kg/m]		20.4	26.7	30.6	36.6	42.6	55.8	29.0	38.2	43.8	52.4	60.8	79.7
Water volume [l/m]		3.7	4.5	5.3	6.2	7.1	8.9	5.4	6.7	8.0	9.3	10.5	13.0



Table of size

Type	10 VKM8	11 VKM8 11 PLAN VKM8 11 LINE VKM8	20 VKM8 20 PLAN VKM8 20 LINE VKM8	21 VKM8 21 PLAN VKM8 21 LINE VKM8	22 VKM8 22 PLAN VKM8 22 LINE VKM8	33 VKM8 33 PLAN VKM8 33 LINE VKM8
D	50	50	50	50	50	50
X1	32	75	83	83	83 (100) ¹⁾ 117 (100) ²⁾	83 (100) ¹⁾ 172 (155) ²⁾
X2	64	107	116	116	150	205

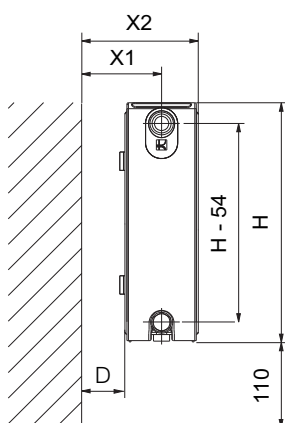
Values **X1** and **X2** depend on actual type of the fixing brackets used (distance D), see catalogue **KORAMONT** or www.korado.com

Values **X2** related to the radiators in versions PLAN and LINE are by 2 mm larger.

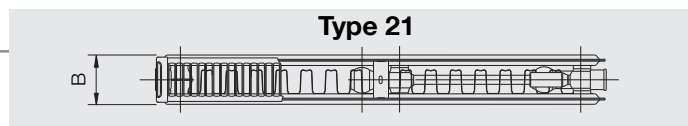
¹⁾ Values **X1** shall be applied in case of bottom middle (bottom right) connection.

²⁾ Values **X1** shall be applied in case of bottom middle (bottom left) connection.

Position of radiator



Type	Number of panels	Number of convector fins
Type 10	1	0
Type 11	1	1
Type 20	2	0
Type 21	2	1
Type 22	2	2
Type 33	3	3



MOUNTING BENEFITS

Connection flexibility

The radiator RADIK VKM8 is very variable in terms of connection to the heating system. Various ways of connection may be selected. This radiator can be connected in bottom middle, bottom right or bottom left. If necessary the inlet and outlet points can be combined, for instance water inlet can be located on one side too (as for other possible connections see page 5). Another advantage consists in the same distance of the bottom middle connection from the wall for types 20, 21, 22 and 33. Consequently it is not necessary to store extra the radiators for the left, right and middle connections. All those radiators can be replaced by the model RADIK VKM8.

RADIK VKM8 brings a significant reduction of inventories both for the wholesale and the installing company and it reduces the risk of errors by the confusion of the left connection for the right and vice versa.

QUALITY AND SAFETY

Quality of panel radiators RADIK VKM8

High quality of the radiators RADIK VKM8 has been confirmed by acquiring the right to use the national quality marks RAL and NF. These marks declare that the stipulated requirements on quality of material, design, technology, production process and tests of the radiators RADIK VKM8 are strictly followed.

The well-established quality management system according to ISO 9001:2008 in combination with the national quality marks guarantees the highest degree in achieving a permanent quality of products and of all activities of the KORADO Company on European as well as world-wide markets.

• Quality management system according to ISO 9001:2008



• Quality mark RAL for the German market

- has been granted to all radiators RADIK VKM8 and RADIK PLAN (LINE) VKM8



• Quality mark NF for the French market

- has been granted for the following range:



Reg. No. CERTITA	Model	Type
5541	RADIK VKM8	Type 10
5542	RADIK VKM8	Type 11
5543	RADIK VKM8	Type 20
5544	RADIK VKM8	Type 21
5545	RADIK VKM8	Type 22
5546	RADIK VKM8	Type 33

Safety and documentation of conformity of the panel radiators RADIK with applicable European directives and standards

• European standard for radiators EN 442



Heat outputs of the panel radiators have been measured in accordance with the EN 442 standard by the accredited testing laboratory HLK Stuttgart GmbH.

• **By the indication CE** the manufacturer declares that radiators comply with properties indicated in Declaration of Performance elaborated and issued in accordance with the EP and Council (EU) directive No. 305/2011. This conformity has been confirmed by the Notified Body No. 1015, Strojírenský zkušební ústav s.p. Brno.



DATA FOR PLACING ORDER



Panel radiators	Version	Model	Type	Code for ordering
RADIK	VENTIL KOMPAKT	RADIK VKM8	10 VKM8	10-HHHLLL-S0-10
			11 VKM8	11-HHHLLL-S0-10
			20 VKM8	20-HHHLLL-S0-10
			21 VKM8	21-HHHLLL-S0-10
			22 VKM8	22-HHHLLL-S0-10
			33 VKM8	33-HHHLLL-S0-10
	PLAN	RADIK PLAN VKM8	11 PLAN VKM8	11-HHHLLL-S0H10
			20 PLAN VKM8	20-HHHLLL-S0H10
			21 PLAN VKM8	21-HHHLLL-S0H10
			22 PLAN VKM8	22-HHHLLL-S0H10
			33 PLAN VKM8	33-HHHLLL-S0H10
	LINE	RADIK LINE VKM8	11 LINE VKM8	11-HHHLLL-S0I10
			20 LINE VKM8	20-HHHLLL-S0I10
			21 LINE VKM8	21-HHHLLL-S0I10
			22 LINE VKM8	22-HHHLLL-S0I10
			33 LINE VKM8	33-HHHLLL-S0I10

Table for creation of a code

TT-HHHLLL-MM-10

TT	Colour code
HHH	Additional information
LLL	Model indication
MM	Length in cm
	Height in cm
10	Type number

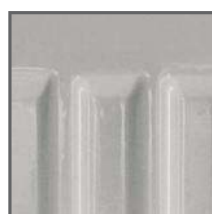
Practical example how to create the code

Panel radiator RADIK VKM8

Type 22, Height H=500 mm, Length L=1800 mm, Colour white RAL 9016

Correct code: 22-050180-S0-10

COLOUR CARD



PLAN SET / LINE SET - available versions of detachable front panels

The models RADIK KLASIK, VK, VKU, VKL, VKM, VKM - L, VKM8, MM, COMBI VK and KLASIK - R can be complemented with a new front panel in the version PLAN or LINE in basic white RAL 9016. Front panels are available also in other colours from RAL colour range with an extra charge.

For more information see please www.korado.com or our technical brochure.



LINE SET



PLAN SET

Notice:

The colour of the radiator may vary in comparison with the colour shown in the colour card.

The standard paint finish is RAL 9016, other colours from KORADO colour range with an extra charge 30 %.

Radiators can be ordered also in other colours from RAL colour range with an extra charge 40 %.

RADIK[®]
STEEL PANEL RADIATORS

VKM8
Universal Panel Radiator

versatile
Heating · Cooling · Ventilation

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