



Matrix Plus

A contemporary twist on the well renowned Matrix range



Features and Benefits

- A well-engineered, robust radiator for commercial and domestic applications
- Manufactured from 70mm x 10mm steel tubes
- 1.5mm air gap between tubes
- 1.5mm material thickness
- Multiple connection options
- Standard RAL 9016 finish
Other RAL colours also available

Models: Horizontal & Vertical

Outputs: 130 - 4966 watts

Maximum working pressure: 4.6 bar (6 bar test)

Heights: 217 - 2600mm

Depths: 45 - 120mm



Matrix Plus

The Matrix Plus is a contemporary twist on the well renowned Matrix range of radiators, suitable for both commercial and domestic applications.

All models are manufactured from 70mm x 10mm steel tubes welded to ø35mm round headers, with 1.5mm material thickness. The Matrix Plus has a maximum working pressure of 4.6 bar and is tested to 6 bar. Connections are ½" with multiple connection patterns available. As standard, the radiators are powder coated in RAL 9016, with other RAL colours available on request.

The Matrix Plus is guaranteed for 5 years against manufacturing defects.



Model Type HLH
(Double panel, single convector)



Model Type HLH
(Double panel, single convector)

Horizontal

The Matrix Plus horizontal is available in five depths; single panel, single panel - single convector, double panel, double panel - single convector, double panel - double convector. The depths vary from 45mm to 120mm. There are 10 heights (from 217mm to 860.5mm) and 18 widths (from 500mm to 2400mm), offering a total of 814 models.



Model Type VL
(Single panel, single convactor)



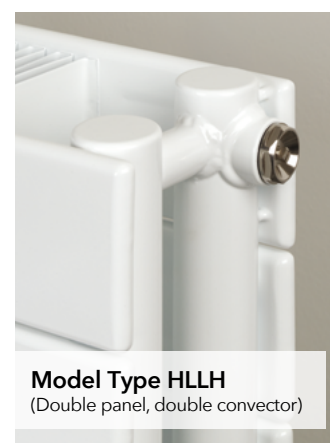
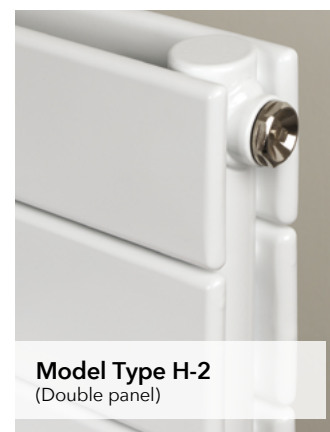
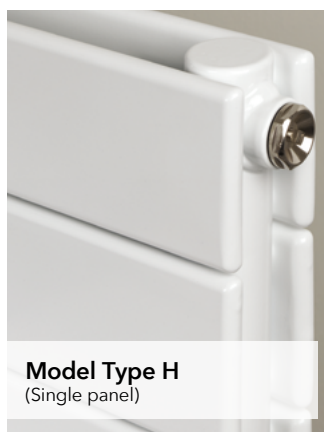
Vertical

The Matrix Plus vertical is available in four depths; single panel, single panel - single convactor, double panel, double panel - single convactor. The depths vary from 45mm to 68mm. There are 11 heights (from 600mm to 2600mm) and 17 widths (217mm to 1361mm), offering a total of 566 models.



Model Type VLV
(Double panel, single convactor)

Output Data – Matrix Plus Horizontal



Model Type H (Single Panel)

Model	MPH21	MPH28	MPH35	MPH42	MPH49	MPH56	MPH63	MPH70	MPH77	MPH84
Height (mm)	217	288.5	360	431.5	503	574.5	646	717.5	789	860.5
Maximum length (mm)	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Width (mm)	Output (watts Δt 50°C)									
500	130	167	202	236	272	307	343	379	417	454
600	156	200	242	283	326	368	412	455	500	545
700	182	233	282	330	380	430	480	531	583	636
800	208	266	322	378	434	491	549	606	666	726
900	234	300	363	425	489	553	617	682	750	817
1000	260	333	406	472	543	614	686	758	833	908
1100	286	366	443	519	597	675	755	834	916	999
1200	312	400	484	566	652	737	823	910	1000	1090
1300	338	433	524	614	706	798	892	985	1083	1180
1400	364	466	564	661	760	860	960	1061	1166	1271
1500	390	500	605	708	815	921	1029	1137	1250	1362
1600	416	533	645	755	869	982	1098	1213	1333	1453
1700	442	566	685	802	923	1044	1166	1289	1416	1544
1800	468	599	725	850	977	1105	1235	1364	1499	1634
1900	494	633	766	897	1032	1167	1303	1440	1583	1725
2000	520	666	806	944	1086	1228	1372	1516	1666	1816
2200	572	733	887	1038	1195	1351	1509	1668	1833	1998
2400	624	799	967	1133	1303	1474	1646	1819	1999	2179

Model	MPH21	MPH28	MPH35	MPH42	MPH49	MPH56	MPH63	MPH70	MPH77	MPH84
Water Content (litres) per metre	1.40	1.87	2.30	2.80	3.30	3.80	4.20	4.70	5.20	5.60
Dry weight (kg) per metre	6.18	8.19	10.38	12.55	14.58	16.68	18.79	20.89	22.99	25.00

Model Type HL (Single Panel, Single Convector)

Model	MPHL21/21	MPHL28/28	MPHL35/35	MPHL42/42	MPHL49/49	MPHL56/56	MPHL63/63	MPHL70/70	MPHL77/70	MPHL84/70
Height (mm)	217	288.5	360	431.5	503	574.5	646	717.5	789	860.5
Maximum length (mm)	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Width (mm)	Output (watts Δt 50°C)									
500	278	345	403	459	512	562	612	658	687	717
600	333	414	484	550	614	674	734	790	824	860
700	389	483	564	642	717	787	857	921	961	1003
800	444	552	645	734	819	899	979	1053	1098	1146
900	500	621	725	825	922	1012	1102	1184	1236	1290
1000	555	690	806	917	1024	1124	1224	1316	1373	1433
1100	611	759	887	1009	1126	1236	1346	1448	1510	1576
1200	666	828	967	1100	1229	1349	1469	1579	1648	1720
1300	722	897	1048	1192	1331	1461	1591	1711	1785	1863
1400	777	966	1128	1284	1434	1574	1714	1842	1922	2006
1500	833	1035	1209	1376	1536	1686	1836	1974	2060	2150
1600	888	1104	1290	1467	1638	1798	1958	2106	2197	2293
1700	944	1173	1370	1559	1741	1911	2081	2237	2334	2436
1800	999	1242	1451	1651	1843	2023	2203	2369	2471	2579
1900	1055	1311	1531	1742	1946	2136	2326	2500	2609	2723
2000	1110	1380	1612	1834	2048	2248	2448	2632	2746	2866
2200	1221	1518	1773	2017	2253	2473	2693	2895	3021	3153
2400	1332	1656	1934	2201	2458	2698	2938	3158	3295	3439

Model	MPHL21/21	MPHL28/28	MPHL35/35	MPHL42/42	MPHL49/49	MPHL56/56	MPHL63/63	MPHL70/70	MPHL77/70	MPHL84/70
Water Content (litres) per metre	1.40	1.87	2.30	2.80	3.30	3.80	4.20	4.70	5.20	5.60
Dry weight (kg) per metre	10.98	14.54	18.44	22.18	25.91	29.72	33.37	36.92	38.84	40.60

Model Type H-2 (Double Panel)

Model	MPH21-2	MPH28-2	MPH35-2	MPH42-2	MPH49-2	MPH56-2	MPH63-2	MPH70-2	MPH77-2	MPH84-2
Height (mm)	217	288.5	360	431.5	503	574.5	646	717.5	789	860.5
Maximum length (mm)	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Width (mm)	Output (watts Δt 50°C)									
500	210	265	315	365	420	470	525	575	630	680
600	252	318	378	438	504	564	630	690	756	816
700	294	371	441	511	588	658	735	805	882	952
800	336	424	504	584	672	752	840	920	1008	1088
900	378	477	567	657	756	846	945	1035	1134	1224
1000	420	530	630	730	840	940	1050	1150	1260	1360
1100	462	583	693	803	924	1034	1155	1265	1386	1496
1200	504	636	756	876	1008	1128	1260	1380	1512	1632
1300	546	689	819	949	1092	1222	1365	1495	1638	1768
1400	588	742	882	1022	1176	1316	1470	1610	1764	1904
1500	630	795	945	1095	1260	1410	1575	1725	1890	2040
1600	672	848	1008	1168	1344	1504	1680	1840	2016	2176
1700	714	901	1071	1241	1428	1598	1785	1955	2142	2312
1800	756	954	1134	1314	1512	1692	1890	2070	2268	2448
1900	798	1007	1197	1387	1596	1786	1995	2185	2394	2584
2000	840	1060	1260	1460	1680	1880	2100	2300	2520	2720
2200	924	1166	1386	1606	1848	2068	2310	2530	2772	2992
2400	1008	1272	1512	1752	2016	2256	2520	2760	3024	3264

Model	MPH21-2	MPH28-2	MPH35-2	MPH42-2	MPH49-2	MPH56-2	MPH63-2	MPH70-2	MPH77-2	MPH84-2
Water Content (litres) per metre	2.80	3.70	4.80	5.60	6.50	7.50	8.30	9.30	11.80	12.50
Dry weight (kg) per metre	11.40	15.20	18.80	22.40	26.10	29.80	33.50	37.00	41.60	45.20

Model Type HLH (Double Panel, Single Convector)

Model	MPHLH35/35	MPHLH42/42	MPHLH49/49	MPHLH56/56	MPHLH63/63	MPHLH70/70	MPHLH77/70	MPHLH84/70
Height (mm)	360	431.5	503	574.5	646	717.5	789	860.5
Maximum length (mm)	2400	2400	2400	2400	2400	2400	2400	2200
Width (mm)	Output (watts Δt 50°C)							
500	430	481	543	595	645	695	750	790
600	516	577	651	714	774	834	900	948
700	602	673	760	833	903	973	1050	1106
800	688	770	868	952	1032	1112	1200	1264
900	774	866	977	1071	1161	1251	1350	1422
1000	860	962	1085	1190	1290	1390	1500	1580
1100	946	1058	1194	1309	1419	1529	1650	1738
1200	1032	1154	1302	1428	1548	1668	1800	1896
1300	1118	1251	1411	1547	1677	1807	1950	2054
1400	1204	1347	1519	1666	1806	1946	2100	2212
1500	1290	1443	1628	1785	1935	2085	2250	2370
1600	1376	1539	1736	1904	2064	2224	2400	2528
1700	1462	1635	1845	2023	2193	2363	2550	2686
1800	1548	1732	1953	2142	2322	2502	2700	2844
1900	1634	1828	2062	2261	2451	2641	2850	3002
2000	1720	1924	2170	2380	2580	2780	3000	3160
2200	1892	2116	2387	2618	2838	3058	3300	3476
2400	2064	2309	2604	2856	3096	3336	3600	-

Model	MPHLH35/35	MPHLH42/42	MPHLH49/49	MPHLH56/56	MPHLH63/63	MPHLH70/70	MPHLH77/70	MPHLH84/70
Water Content (litres) per metre	4.80	5.60	6.50	7.50	8.30	9.30	11.80	12.50
Dry weight (kg) per metre	25.00	30.00	34.00	38.00	43.00	48.00	51.00	55.00

Model Type HLLH (Double Panel, Double Convector)

Model	MPHLLH35/35	MPHLLH42/42	MPHLLH49/49	MPHLLH56/56	MPHLLH63/63	MPHLLH70/70	MPHLLH77/70	MPHLLH84/70
Height (mm)	360	431.5	503	574.5	646	717.5	789	860.5
Maximum length (mm)	2400	2400	2400	2400	2200	2000	1900	1800
Width (mm)	Output (watts Δt 50°C)							
500	749	844	951	1035	1114	1183	1236	1292
600	899	1013	1141	1241	1336	1419	1483	1550
700	1049	1182	1331	1448	1559	1656	1730	1808
800	1198	1350	1521	1655	1782	1892	1978	2066
900	1348	1519	1711	1862	2004	2129	2225	2325
1000	1498	1688	1901	2069	2227	2365	2472	2583
1100	1648	1857	2091	2276	2450	2602	2719	2841
1200	1798	2026	2281	2483	2672	2838	2966	3100
1300	1947	2194	2471	2690	2895	3075	3214	3358
1400	2097	2363	2661	2897	3118	3311	3461	3616
1500	2247	2532	2852	3104	3341	3548	3708	3875
1600	2397	2701	3042	3310	3563	3784	3955	4133
1700	2547	2870	3232	3517	3786	4021	4202	4391
1800	2696	3038	3422	3724	4009	4257	4450	4649
1900	2846	3207	3612	3931	4231	4494	4697	-
2000	2996	3376	3802	4138	4454	4730	-	-
2200	3296	3714	4182	4552	4899	-	-	-
2400	3595	4051	4562	4966	-	-	-	-

Model	MPHLLH35/35	MPHLLH42/42	MPHLLH49/49	MPHLLH56/56	MPHLLH63/63	MPHLLH70/70	MPHLLH77/70	MPHLLH84/70
Water Content (litres) per metre	4.80	5.60	6.50	7.50	8.30	9.30	11.80	12.50
Dry weight (kg) per metre	36.43	43.54	50.65	57.66	64.87	72.04	76.52	81.14

Output Data – Matrix Plus Vertical



Model Type V (Single Panel)

Model	MPV60	MPV80	MPV100	MPV120	MPV140	MPV160	MPV180	MPV200	MPV220	MPV240	MPV260
Height (mm)	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600
Maximum length (mm)	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361
Tubes	Width (mm)	Output (watts Δt 50°C)									
3	217.0	143	182	228	270	310	352	389	437	486	529
4	288.5	190	242	303	359	412	469	517	582	646	703
5	360.0	237	302	378	449	514	585	645	726	806	877
6	431.5	284	362	453	538	616	701	773	870	967	1051
7	503.0	331	423	528	627	718	817	901	1014	1127	1225
8	574.5	378	483	603	716	820	933	1030	1158	1287	1399
9	646.0	425	543	678	805	922	1049	1158	1302	1447	1574
10	717.5	472	603	753	894	1025	1165	1286	1446	1607	1748
11	789.0	519	663	828	983	1127	1281	1414	1591	1767	1922
12	860.5	566	723	904	1072	1229	1397	1542	1735	1928	2096
13	932.0	613	783	979	1161	1331	1514	1670	1879	2088	2270
14	1003.5	660	843	1054	1250	1433	1630	1798	2023	2248	2445
15	1075.0	707	903	1129	1339	1535	1746	1926	2167	2408	2619
16	1146.5	754	963	1204	1429	1637	1862	2055	2311	2568	2793
17	1218.0	801	1023	1279	1518	1739	1978	2183	2455	2728	2967
18	1289.5	848	1083	1354	1608	1841	2094	2311	2600	2888	3141
19	1361.0	896	1143	1429	1696	1944	2210	2439	2744	3049	3315

Model	MPV60	MPV80	MPV100	MPV120	MPV140	MPV160	MPV180	MPV200	MPV220	MPV240	MPV260
Water Content (litres) per metre	4.10	5.60	6.10	7.10	8.10	9.00	9.90	10.92	11.80	12.74	13.60
Dry weight (kg) per metre	19.36	24.78	30.19	34.74	41.03	46.44	51.86	57.27	62.69	68.11	73.52

Model Type VL (Single Panel, Single Convactor)

Model	MPVL60	MPVL80	MPVL100	MPVL120	MPVL140	MPVL160	MPVL180	MPVL200	MPVL220
Height (mm)	600	800	1000	1200	1400	1600	1800	2000	2200
Maximum length (mm)	1003.5	1003.5	1003.5	1003.5	1003.5	1003.5	1003.5	1003.5	1003.5
Tubes	Width (mm)	Output (watts Δt 50°C)							
3	217.0	231	295	355	413	474	526	577	620
4	288.5	307	392	473	549	630	699	767	824
5	360.0	383	489	590	685	786	872	958	1028
6	431.5	459	586	707	822	942	1045	1148	1232
7	503.0	535	683	824	958	1099	1218	1338	1437
8	574.5	611	780	941	1094	1255	1391	1528	1641
9	646.0	687	877	1058	1230	1411	1565	1718	1845
10	717.5	763	974	1175	1366	1567	1738	1909	2049
11	789.0	839	1071	1292	1502	1723	1911	2099	2253
12	860.5	916	1169	1409	1638	1879	2084	2289	2458
13	932.0	992	1266	1527	1775	2035	2257	2479	2662
14	1003.5	1068	1363	1644	1911	2192	2430	2669	2866

Model	MPVL60	MPVL80	MPVL100	MPVL120	MPVL140	MPVL160	MPVL180	MPVL200	MPVL220
Water Content (litres) per metre	4.10	5.60	6.10	7.10	8.10	9.00	9.90	10.80	11.80
Dry weight (kg) per metre	27.62	37.05	47.91	56.48	69.64	80.51	91.37	103.43	114.23

Model Type V-2 (Double Panel)

Model	MPV60-2	MPV80-2	MPV100-2	MPV120-2	MPV140-2	MPV160-2	MPV180-2	MPV200-2	MPV220-2	MPV240-2	MPV260-2
Height (mm)	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600
Maximum length (mm)	1361	1361	1361	1361	1361	1361	1361	1146.5	1075	1003.5	860.5
Tubes	Width (mm)	Output (watts Δt 50°C)									
3	217.0	204	267	328	395	450	504	562	620	677	735
4	288.5	271	355	436	525	598	670	747	824	901	1050
5	360.0	338	444	544	655	746	837	932	1028	1124	1310
6	431.5	405	532	652	785	894	1003	1118	1232	1347	1571
7	503.0	472	620	761	915	1042	1169	1303	1437	1570	1831
8	574.5	539	708	869	1046	1190	1335	1488	1641	1794	2091
9	646.0	606	796	977	1176	1339	1501	1673	1845	2017	2351
10	717.5	673	884	1085	1306	1487	1667	1858	2049	2240	2612
11	789.0	740	972	1193	1436	1635	1834	2044	2253	2463	2872
12	860.5	807	1060	1301	1566	1783	2000	2229	2458	2686	3132
13	932.0	874	1148	1409	1696	1931	2166	2414	2662	2910	-
14	1003.5	941	1236	1517	1826	2079	2332	2599	2866	3133	-
15	1075.0	1008	1324	1625	1957	2227	2498	2784	3070	3356	-
16	1146.5	1075	1412	1734	2087	2376	2664	2969	3274	-	-
17	1218.0	1142	1501	1842	2217	2524	2831	3155	-	-	-
18	1289.5	1210	1589	1950	2347	2672	2997	3340	-	-	-
19	1361.0	1277	1677	2058	2477	2820	3163	-	-	-	-

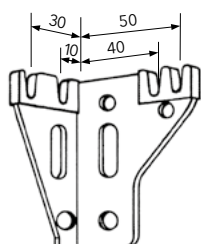
Model	MPV60-2	MPV80-2	MPV100-2	MPV120-2	MPV140-2	MPV160-2	MPV180-2	MPV200-2	MPV220-2	MPV240-2	MPV260-2
Water Content (litres) per metre	8.10	9.60	11.10	12.60	14.60	16.50	18.30	20.20	22.10	24.00	26.00
Dry weight (kg) per metre	38.42	49.60	60.73	71.95	82.98	94.10	105.23	116.35	127.48	138.57	147.04

Model Type VLV (Double Panel, Single Convactor)

Model	MPVLV60	MPVLV80	MPVLV100	MPVLV120	MPVLV140	MPVLV160	MPVLV180	MPVLV200	MPVLV220
Height (mm)	600	800	1000	1200	1400	1600	1800	2000	2200
Maximum length (mm)	1004	1004	1004	1004	1004	1004	1004	860	789
Tubes	Width (mm)	Output (watts Δt 50°C)							
3	217.0	301	374	453	535	608	656	720	805
4	288.5	400	497	602	711	808	872	957	1070
5	360.0	499	620	751	887	1008	1089	1194	1336
6	431.5	598	743	900	1063	1208	1305	1432	1601
7	503.0	697	866	1049	1239	1408	1521	1669	1866
8	574.5	796	989	1198	1416	1609	1737	1906	2131
9	646.0	895	1112	1348	1592	1809	1954	2143	2397
10	717.5	994	1236	1497	1768	2009	2170	2381	2662
11	789.0	1094	1359	1646	1944	2209	2386	2618	2927
12	860.5	1193	1482	1795	2120	2409	2602	2855	3192
13	932.0	1292	1605	1944	2296	2610	2818	3092	-
14	1003.5	1391	1728	2093	2473	2810	3035	3330	-

Model	MPVLV60	MPVLV80	MPVLV100	MPVLV120	MPVLV140	MPVLV160	MPVLV180	MPVLV200	MPVLV220
Water Content (litres) per metre	8.10	9.60	11.10	12.60	14.60	16.50	18.30	20.20	22.10
Dry weight (kg) per metre	47.00	61.83	78.10	91.22	110.67	126.95	143.23	160.70	178.15

Brackets & accessories



Wall Bracket – Horizontal & Vertical Models

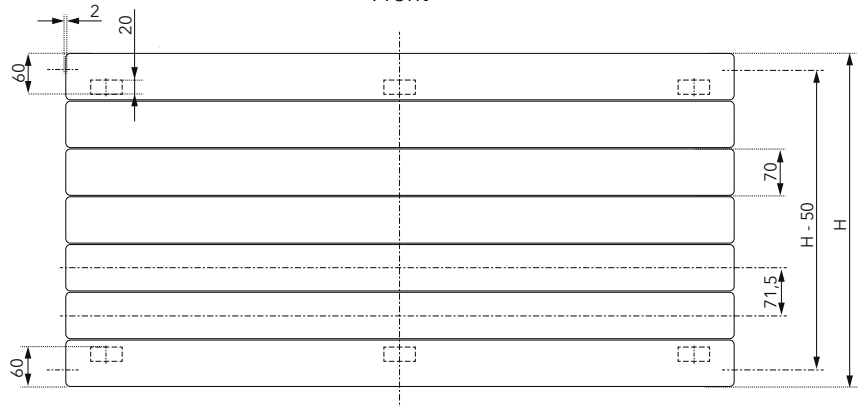
Lug positions at 10mm, 30mm, 40mm & 50mm

117/L = Left hand bracket
117/R = Right hand bracket

Dimensional data

Horizontal Models

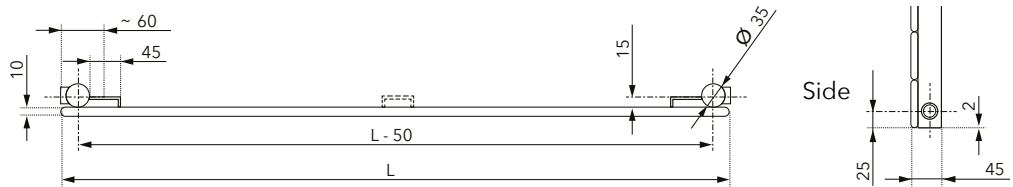
Front



Radiators over 2000mm have additional lugs positioned centrally

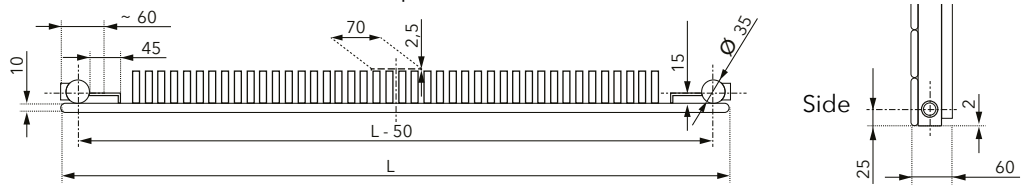
Top

MPH



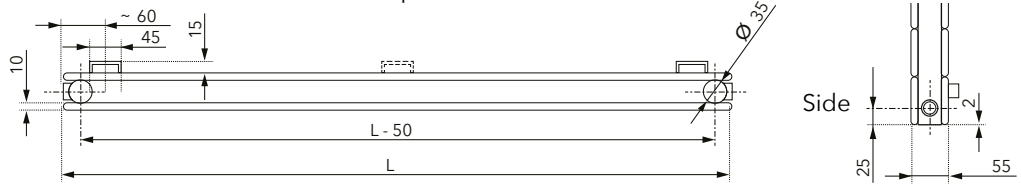
Top

MPHL



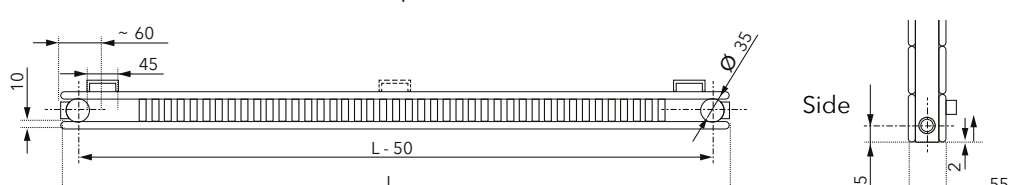
Top

MPH2



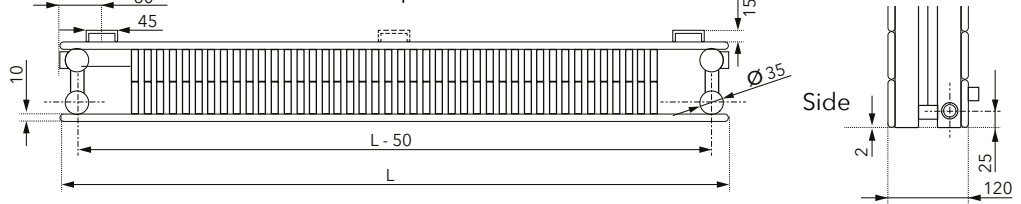
Top

MPHLH



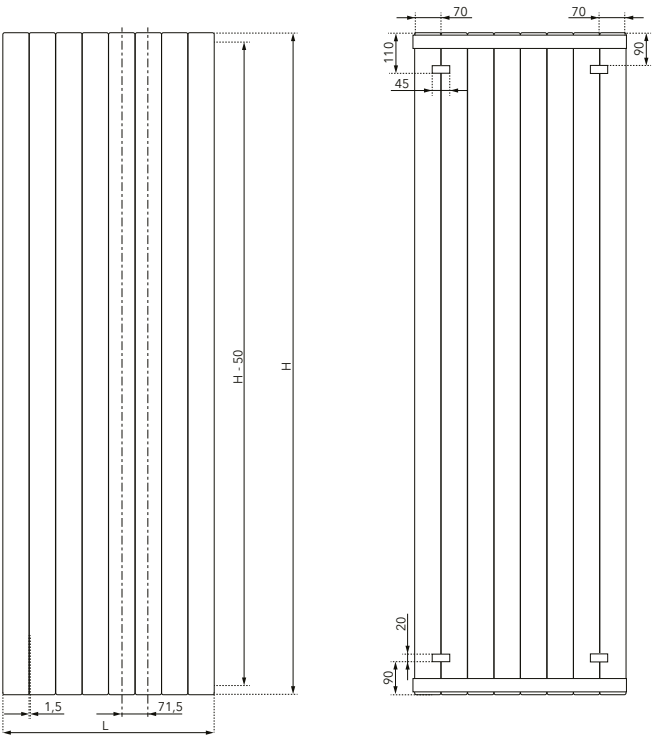
Top

MPHLLH



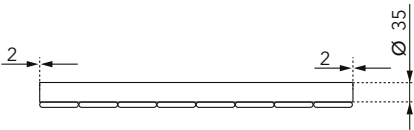
Dimensions

Vertical Models

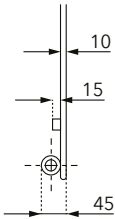


Top

MPV

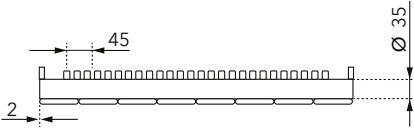


Side

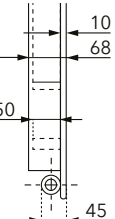


Top

MPVL

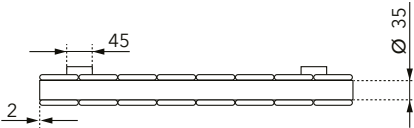


Side

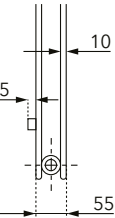


Top

MPV2



Side

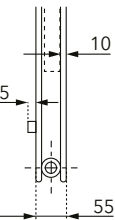


Top

MPVLV



Side

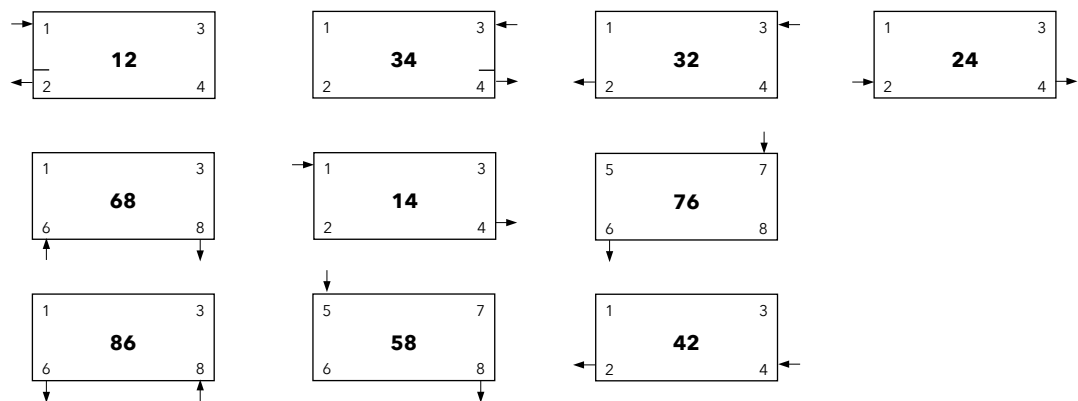


Connection details

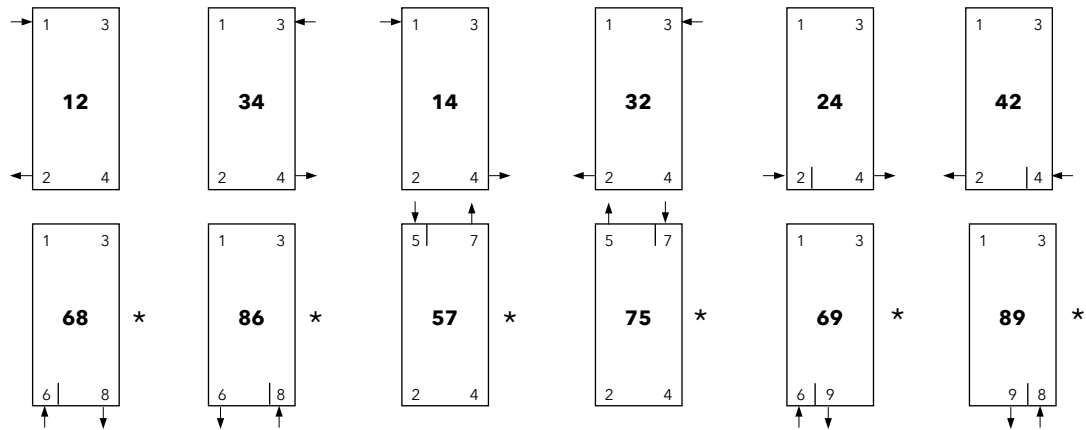


Standard connection = **24**, $\frac{1}{2}$ "BSP (unless specified otherwise)

Horizontal Models



Vertical Models



*Extra cost

Valves

The fine detail of any installation makes all the difference, and a stylish radiator deserves an equally attractive finishing touch. It used to be that a radiator valve was just a radiator valve. But not any more. Valves come in all shapes and sizes – and they don't have to be plain or boring. To complement its extensive range of radiators, MHS has an unrivalled selection of designer valves for both period and contemporary settings, including straight and angled options.

With the current emphasis on energy efficiency, heating controls are at the forefront of fuel savings and to help meet these measures, most MHS radiator valves are available with TRV options too.

To complete the look, you can disguise plumbing with a carefully designed pipe sleeve and bezel.



ΔT	CORRECTION FACTOR	ΔT	CORRECTION FACTOR
60	1.267	41	0.773
59	1.240	40	0.748
58	1.213	39	0.724
57	1.186	38	0.700
56	1.159	37	0.676
55.5	1.145	36	0.652
55	1.132	35	0.629
54	1.105	34	0.606
53	1.079	33	0.583
52	1.052	32	0.560
51	1.026	31	0.537
50	1.000	30	0.515
49	0.974	29	0.493
48	0.948	28	0.471
47	0.923	27	0.449
46	0.897	26	0.427
45	0.872	25	0.406
44	0.847	24	0.385
43	0.822	23	0.364
42	0.797	22.5	0.354

The outputs shown within this brochure are based on BS EN442. BS EN442 specifies that all outputs must be stated at ΔT 50°C, which is based on 75-65-20°C operating conditions.

The ΔT is calculated by taking the mean water temperature and deducting the ambient air temperature.

For example, a typical air-source heat pump system will have flow temperatures of 45°C and return temperatures of 40°C. With an ambient air temperature of 20°C, this means the system is operating at ΔT 22.5°C.

To calculate the output of a radiator at operating conditions other than ΔT 50°C, multiply the listed output by the correction factors shown in the table on the left.

Water treatment: These products are for use on closed heating systems only; they are not suitable for installation on secondary HWS circuits. On completion of the installation the entire system must be thoroughly cleaned and flushed to remove debris/flus residues etc. If a chemical cleaner is used, it must be thoroughly flushed from the system.

Following this, the system must be dosed with a good eminence water treatment to prevent corrosion. System design, flushing and dosing must be in accordance with BS 7593: 2019 and BS EN 12828: 2012.

Alternatively, the system should be compliant with the criteria defined in VDI 2035.

IMPORTANT: Failure to observe these requirements will render the guarantee on the product void.



Unit 4 Genesis, Endeavour Drive, Basildon, Essex SS14 3WF
 Tel: +44 (0) 345 521 5666 Fax: +44 (0)1268 888260
 mhs@modularhg.co.uk orders@modularhg.co.uk
 aftersales@modularhg.co.uk www.mhsradiators.co.uk

