

Merriott

DESIGN RADIATORS

HORIZONTAL PANEL RADIATORS TECHNICAL INFORMATION

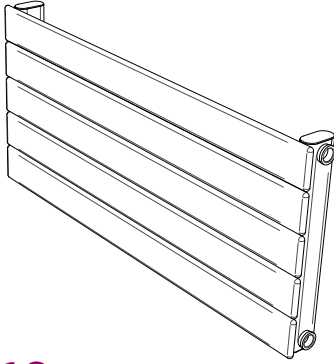


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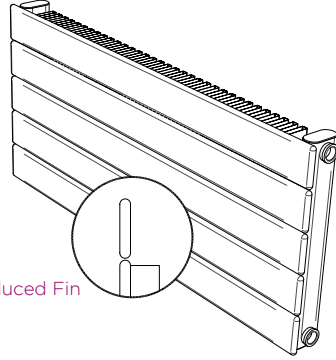
Overview Of Horizontal Panel Range

Standard Range



H10

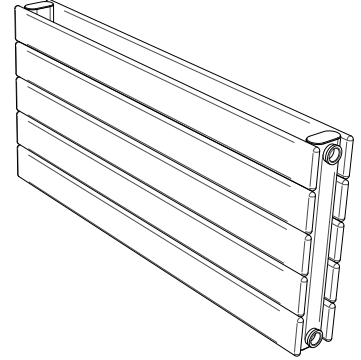
Single panel radiator. No convector fin



Reduced Fin

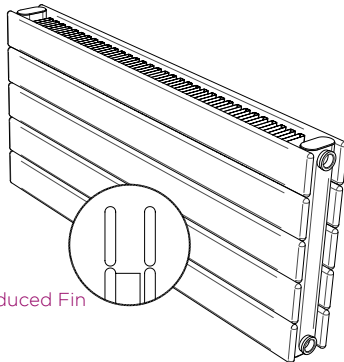
H11
full fin shown

Single panel radiator with one convector fin



H20

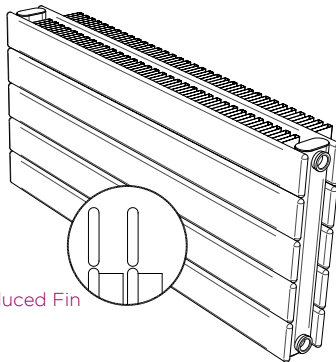
Double panel radiator. No convector fin



Reduced Fin

H21
full fin shown

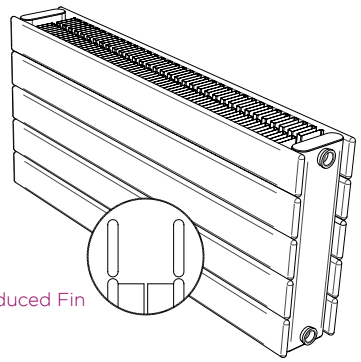
Double panel radiator with one convector fin



Reduced Fin

H22
full fin shown

Double panel radiator with two convector fins

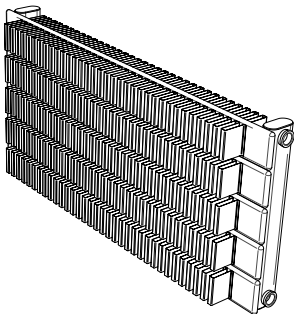


Reduced Fin

H22S
full fin shown

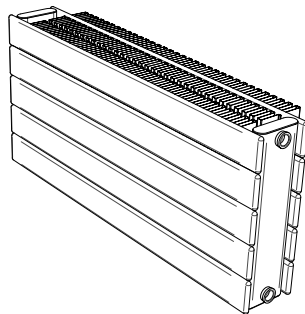
Double panel radiator with two convector fins face to face in centre of the double panels

Extended Range



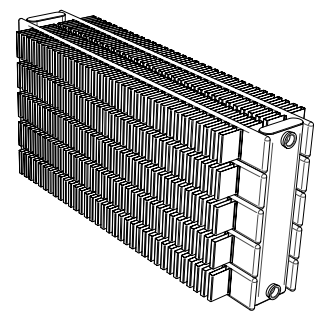
H12

Single panel radiator with two convector fins



H23

Double panel radiator with three convector fins



H24

Double panel radiator with four convector fins

Horizontal Panel Radiators Specification

Paint

Merriott Radiators uses a painting process developed for the automobile industry. In pre-treatment, the radiators go through a series of washes which degrease the steel. An iron phosphate rinse passivates the surface prior to painting.

The primer coat is applied by immersion in an electrophoretic bath to give total cover of the bare steel and maximum corrosion protection. This coat is baked at 200°C. The durable topcoat (epoxy polyester powder) is electrostatically applied and stove enamel baked at 200°C. The process is monitored to ensure continuous achievement of optimum adhesion, opacity and gloss levels.

Colour

Our standard finish is semi-gloss RAL 9016 (White) in epoxy polyester powder. An extensive range of other RAL and BS colours are available, at a surcharge, on request.

Outputs

All Merriott Radiators are manufactured and tested in accordance with BS EN 442 and the NF quality mark requirements in its state of the art BS EN ISO 9001:2008 accredited manufacturing facility in Newport, Wales.

Sizing & Heat Emissions

Merriott Radiators panel radiators offer emissions ranging from 147 watts to 3194watts per metre at $\Delta T50^{\circ}\text{C}$. Comprehensive sizing and emission charts are included in this catalogue. Higher heat emissions can be achieved using non-standard radiators. Details are available from Merriott Radiators.

Height

The height of the radiator increases in increments of 72.5mm, from a minimum of 143mm through to 868mm, for both double and single panel radiators.

Length

The radiator length always relates to the overall front panel length, and increases in increments of 100mm, from a minimum of 400mm through to 3400mm.

Dimensional Tolerances

Dimensional tolerances are in accordance with **EN442**.

Warranty

Merriott Radiators Horizontal Panels are guaranteed for a period of ten years in respect of defective materials and workmanship. In order for the warranty to be valid, designers and installers must observe and adhere to **BS EN 12828:2003**. Heating systems in buildings – design for water based heating systems and installers must adhere to **BS EN 14336:2004**. Heating system in buildings – installation and commissioning of water based heating systems. In addition Merriott Radiators recommends that designers and installers observe and adhere to the British Standard code of practice for the treatment of water in domestic hot water central heating systems and **BS 7593:2006**, the use of corrosion inhibitor is recommended for all applications, failure to observe this may result in the invalidation of warranty.

Materials

Merriott Radiators are manufactured from flat steel tubes, 70mm x 11mm, with a standard thickness of 1.5mm. Other thicknesses are available on request.

Operating Pressures

The standard test pressure is 7 Bar giving a maximum operating pressure of 5.38 Bar.

Other Operating Pressures

Where required, radiators can be supplied with test pressures of up to 13 Bar (operating 10 Bar).

Connections

Standard connections are 4 X 1/2" (15mm) ABCD With 1/2" (15mm) blank plug and Vent (BOE or TBOE) Other connections available include:
- BBOE, TBSE & TTOE
-Combinations must be stated at time of ordering

For alternative connection sizes please contact the Merriott Radiators Sales Office.

Mountings

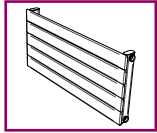
Mounting supports at the rear of the radiator fix securely and simply to wall-mounted brackets. Floor-mounted supports (Feet) are available on request.

Security Mounting

A special security bracket is available for use in detention centres or other areas where security is paramount.

Summary of Heat Emissions Outputs: Watts Per Metre

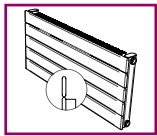
H10



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	215	288	360	433	505	578	650	723	795	868
-	-	-	-	-	-	-	-	-	-	-
147	216	287	357	445	527	609	689	768	843	917
170	250	333	414	516	611	706	799	890	977	1063

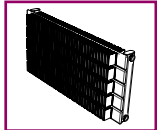
H11



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868	
70	143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868
208	268	330	392	455	518	632	681	723	794	817	901	918	1006	1024	1107	1138	1206	1258	1302	1389	1396	
241	311	383	454	527	600	732	789	838	920	947	1044	1064	1166	1187	1283	1319	1398	1458	1509	1610	1618	

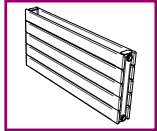
H12 (Caution: radiator should not be used without a cover such as a LST panel)



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	215	288	360	433	505	578	650	723	795	868
143	215	288	360	433	505	578	650	723	795	868
388	552	714	898	1020	1140	1265	1390	1517	1645	1777
450	640	828	1041	1182	1321	1466	1611	1758	1907	2060

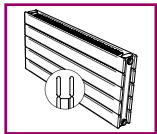
H20



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	215	288	360	433	505	578	650	723	795	868
-	-	-	-	-	-	-	-	-	-	-
281	412	545	676	809	943	1080	1217	1358	1500	1646
326	478	632	783	938	1093	1252	1411	1574	1739	1908

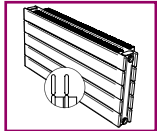
H21



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868	
70	143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868
359	436	530	623	722	820	960	979	1110	1133	1253	1280	1392	1423	1525	1560	1655	1696	1780	1826	1903	1955	
416	505	614	722	837	950	1113	1135	1286	1313	1452	1484	1613	1649	1767	1808	1918	1966	2063	2116	2206	2266	

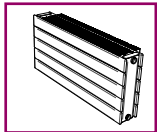
H22 & H22S



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868	
70	143	143	215	215	288	288	360	360	433	433	505	505	578	578	650	650	723	723	795	795	868	868
470	659	783	906	1021	1136	1264	1349	1455	1555	1634	1749	1807	1938	1969	2119	2126	2296	2274	2466	2418	2634	2634
545	764	907	1050	1183	1317	1465	1563	1686	1802	1894	2027	2094	2246	2282	2456	2464	2661	2636	2858	2802	3053	3053

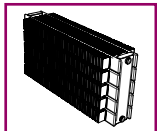
H23



Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	215	288	360	433	505	578	650	723	795	868
143	215	288	360	433	505	578	650	723	795	868
737	1015	1275	1530	1752	1957	2154	2335	2505	2661	2806
854	1176	1478	1773	2031	2268	2496	2706	2903	3084	3252

H24 (Caution: radiator should not be used without a cover such as a LST panel)



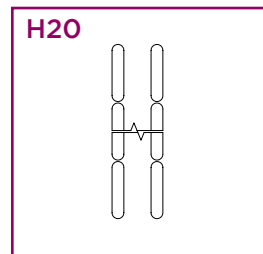
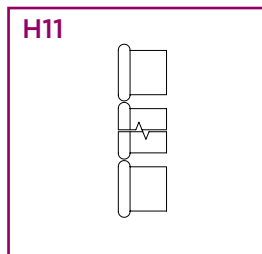
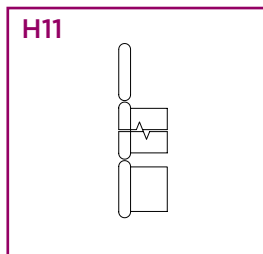
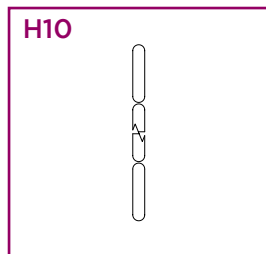
Panel Height	
Fin Height	
Heat	ΔT50
Emission	ΔT56

143	215	288	360	433	505	578	650	723	795	868
143	215	288	360	433	505	578	650	723	795	868
864	1186	1487	1796	2049	2280	2501	2701	2884	3048	3194
1001	1375	1723	2082	2375	2643	2899	3130	3343	3533	3702

Horizontal Panel Outputs

Heat Emissions

Height 143mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
4.25
1.15
0.346

H11 (Reduced Fin)
70
5.525
1.15
0.868

H11 (Full Fin)
143
6.75
1.15
1.39

H20
n/a
7.83
2.5
0.65

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
59	68
74	85
88	102
103	119
118	136
132	153
147	170
162	187
176	204
191	221
206	239
221	256
235	273
250	290
265	307
279	324
294	341
309	358
323	375
338	392
353	409
368	426
382	443
397	460
412	477
426	494
441	511
456	528
470	545
485	562
500	579

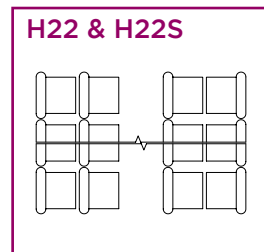
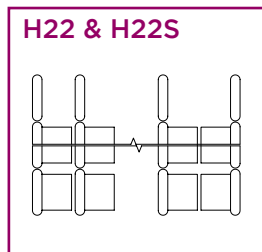
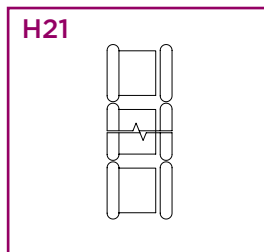
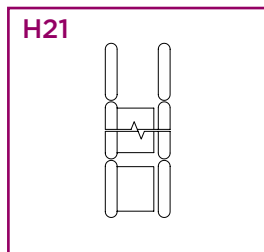
Output (Watts)	
ΔT50	ΔT56
83	96
104	121
125	145
146	169
166	193
187	217
208	241
229	265
250	289
270	313
291	338
312	362
333	386
354	410
374	434
395	458
416	482
437	506
458	530
478	554
499	579
520	603
541	627
562	651
582	675
603	699
624	723
645	747
666	771
686	796
707	820

Output (Watts)	
ΔT50	ΔT56
107	124
134	155
161	186
188	217
214	248
241	280
268	311
295	342
322	373
348	404
375	435
402	466
429	497
456	528
482	559
509	590
536	621
563	652
590	683
616	714
643	745
670	777
697	808
724	839
750	870
777	901
804	932
831	963
858	994
884	1025
911	1056

Output (Watts)	
ΔT50	ΔT56
112	130
141	163
169	195
197	228
225	261
253	293
281	326
309	358
337	391
365	423
393	456
422	489
450	521
478	554
506	586
534	619
562	651
590	684
618	716
646	749
674	782
703	814
731	847
759	879
787	912
815	944
843	977
871	1010
899	1042
927	1075
955	1107

Heat Emissions

Height 143mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
70
9.4
2.5
1.172

H21 (Full Fin)
143
10.6
2.5
1.694

H22 & H22S (Reduced Fin)
70
11.02
2.5
1.694

H22 & H22S (Full Fin)
143
13.67
2.5
2.738

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
144	166
180	208
215	250
251	291
287	333
323	374
359	416
395	458
431	499
467	541
503	583
539	624
574	666
610	707
646	749
682	791
718	832
754	874
790	915
826	957
862	999
898	1040
933	1082
969	1123
1005	1165
1041	1207
1077	1248
1113	1290
1149	1331
1185	1373
1221	1415

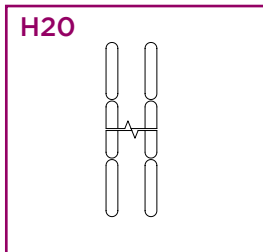
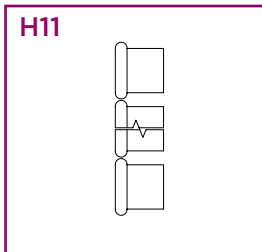
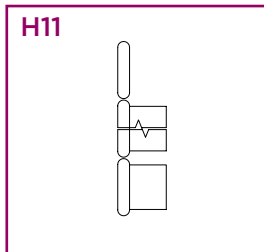
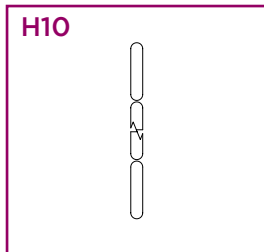
Output (Watts)	
ΔT50	ΔT56
174	202
218	253
262	303
305	354
349	404
392	455
436	505
480	556
523	606
567	657
610	707
654	758
698	809
741	859
785	910
828	960
872	1011
916	1061
959	1112
1003	1162
1046	1213
1090	1263
1134	1314
1177	1364
1221	1415
1264	1465
1308	1516
1352	1567
1395	1617
1439	1668
1482	1718

Output (Watts)	
ΔT50	ΔT56
188	218
235	272
282	327
329	381
376	436
423	490
470	545
517	599
564	654
611	708
658	763
705	817
752	872
799	926
846	981
893	1035
940	1089
987	1144
1034	1198
1081	1253
1128	1307
1175	1362
1222	1416
1269	1471
1316	1525
1363	1580
1410	1634
1457	1689
1504	1743
1551	1798
1598	1852

Output (Watts)	
ΔT50	ΔT56
264	306
330	382
395	458
461	535
527	611
593	687
659	764
725	840
791	917
857	993
923	1069
989	1146
1054	1222
1120	1298
1186	1375
1252	1451
1318	1528
1384	1604
1450	1680
1516	1757
1582	1833
1648	1909
1713	1986
1779	2062
1845	2139
1911	2215
1977	2291
2043	2368
2109	2444
2175	2520
2241	2597

Heat Emissions

Height 215mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
6.26
1.81
0.519

H11 (Reduced Fin)
143
8.45
1.81
1.563

H11 (Full Fin)
215
10.1
1.81
2.085

H20
n/a
11.9
3.53
0.975

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
86	100
108	125
130	150
151	175
173	200
194	225
216	250
238	275
259	300
281	325
302	350
324	376
346	401
367	426
389	451
410	476
432	501
454	526
475	551
497	576
518	601
540	626
562	651
583	676
605	701
626	726
648	751
670	776
691	801
713	826
734	851

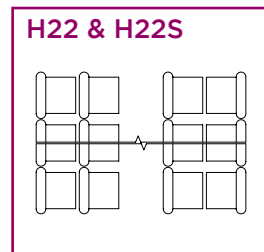
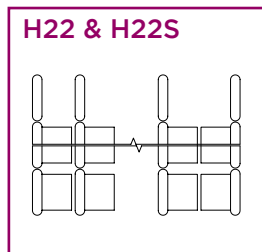
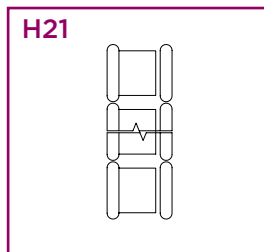
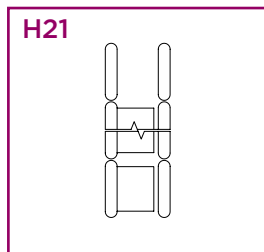
Output (Watts)	
ΔT50	ΔT56
132	153
165	191
198	230
231	268
264	306
297	344
330	383
363	421
396	459
429	498
462	536
495	574
528	612
561	651
594	689
627	727
660	765
693	804
726	842
759	880
792	918
826	957
859	995
892	1033
925	1072
958	1110
991	1148
1024	1186
1057	1225
1090	1263
1123	1301

Output (Watts)	
ΔT50	ΔT56
157	182
196	227
235	273
274	318
314	363
353	409
392	454
431	500
470	545
510	591
549	636
588	681
627	727
666	772
706	818
745	863
784	909
823	954
862	1000
902	1045
941	1090
980	1136
1019	1181
1058	1227
1098	1272
1137	1318
1176	1363
1215	1408
1254	1454
1294	1499
1333	1545

Output (Watts)	
ΔT50	ΔT56
165	191
206	239
247	287
288	334
330	382
371	430
412	478
453	525
494	573
536	621
577	669
618	716
659	764
700	812
742	860
783	907
824	955
865	1003
906	1051
948	1098
989	1146
1030	1194
1071	1242
1112	1289
1154	1337
1195	1385
1236	1433
1277	1480
1318	1528
1360	1576
1401	1624

Heat Emissions

Height 215mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
143
14.26
3.53
2.019

H21 (Full Fin)
215
15.89
3.53
2.541

H22 & 22S (Reduced Fin)
143
16.53
3.53
3.063

H22 & 22S (Full Fin)
215
18.22
3.53
4.107

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
212	246
265	307
318	369
371	430
424	491
477	553
530	614
583	676
636	737
689	799
742	860
795	921
848	983
901	1044
954	1106
1007	1167
1060	1229
1113	1290
1166	1351
1219	1413
1272	1474
1325	1536
1378	1597
1431	1659
1484	1720
1537	1781
1590	1843
1643	1904
1696	1966
1749	2027
1802	2089

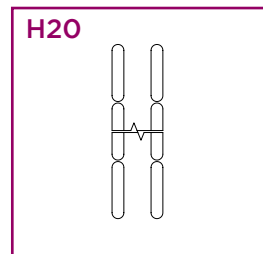
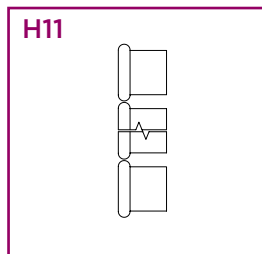
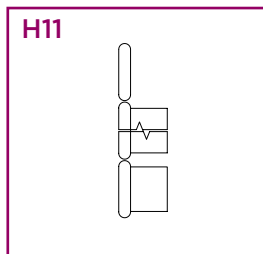
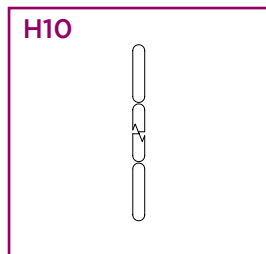
Output (Watts)	
ΔT50	ΔT56
249	289
312	361
374	433
436	505
498	578
561	650
623	722
685	794
748	866
810	939
872	1011
935	1083
997	1155
1059	1227
1121	1300
1184	1372
1246	1444
1308	1516
1371	1589
1433	1661
1495	1733
1558	1805
1620	1877
1682	1950
1744	2022
1807	2094
1869	2166
1931	2238
1994	2311
2056	2383
2118	2455

Output (Watts)	
ΔT50	ΔT56
313	363
392	454
470	544
548	635
626	726
705	817
783	907
861	998
940	1089
1018	1180
1096	1270
1175	1361
1253	1452
1331	1543
1409	1633
1488	1724
1566	1815
1644	1906
1723	1996
1801	2087
1879	2178
1958	2269
2036	2359
2114	2450
2192	2541
2271	2632
2349	2722
2427	2813
2506	2904
2584	2995
2662	3085

Output (Watts)	
ΔT50	ΔT56
362	420
453	525
544	630
634	735
725	840
815	945
906	1050
997	1155
1087	1260
1178	1365
1268	1470
1359	1575
1450	1680
1540	1785
1631	1890
1721	1995
1812	2100
1903	2205
1993	2310
2084	2415
2174	2520
2265	2625
2356	2730
2446	2835
2537	2940
2627	3045
2718	3150
2809	3255
2899	3360
2990	3465
3080	3570

Heat Emissions

Height 288mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
8.29
2.58
0.692

H11 (Reduced Fin)
215
11.43
2.58
2.258

H11 (Full Fin)
288
13.5
2.58
2.78

H20
n/a
16.02
4.77
1.3

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
115	133
144	166
172	200
201	233
230	266
258	299
287	333
316	366
344	399
373	432
402	466
431	499
459	532
488	565
517	599
545	632
574	665
603	699
631	732
660	765
689	798
718	832
746	865
775	898
804	931
832	965
861	998
890	1031
918	1064
947	1098
976	1131

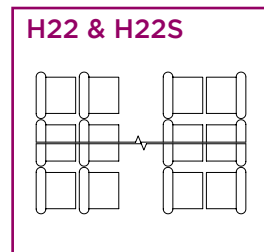
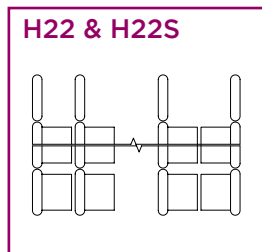
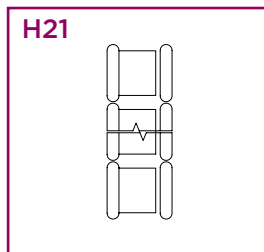
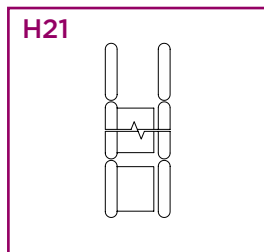
Output (Watts)	
ΔT50	ΔT56
182	211
228	264
273	316
319	369
364	422
410	475
455	527
501	580
546	633
592	686
637	738
683	791
728	844
774	896
819	949
865	1002
910	1055
956	1107
1001	1160
1047	1213
1092	1266
1138	1318
1183	1371
1229	1424
1274	1477
1320	1529
1365	1582
1411	1635
1456	1688
1502	1740
1547	1793

Output (Watts)	
ΔT50	ΔT56
207	240
259	300
311	360
363	420
414	480
466	540
518	600
570	660
622	720
673	780
725	841
777	901
829	961
881	1021
932	1081
984	1141
1036	1201
1088	1261
1140	1321
1191	1381
1243	1441
1295	1501
1347	1561
1399	1621
1450	1681
1502	1741
1554	1801
1606	1861
1658	1921
1709	1981
1761	2041

Output (Watts)	
ΔT50	ΔT56
218	253
273	316
327	379
382	442
436	505
491	568
545	632
600	695
654	758
709	821
763	884
818	947
872	1011
927	1074
981	1137
1036	1200
1090	1263
1145	1326
1199	1390
1254	1453
1308	1516
1363	1579
1417	1642
1472	1705
1526	1769
1581	1832
1635	1895
1690	1958
1744	2021
1799	2084
1853	2148

Heat Emissions

Height 288mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
215
19.19
4.77
2.866

H21 (Full Fin)
288
21.25
4.77
3.388

H22 & 22S (Reduced Fin)
215
22.2
4.77
4.432

H22 & 22S (Full Fin)
288
22.84
4.77
5.476

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
289	335
361	418
433	502
505	586
578	669
650	753
722	837
794	920
866	1004
939	1088
1011	1172
1083	1255
1155	1339
1227	1423
1300	1506
1372	1590
1444	1674
1516	1757
1588	1841
1661	1925
1733	2008
1805	2092
1877	2176
1949	2259
2022	2343
2094	2427
2166	2510
2238	2594
2310	2678
2383	2761
2455	2845

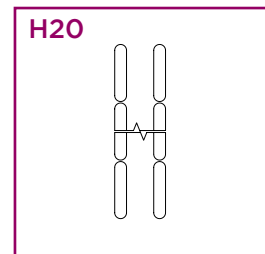
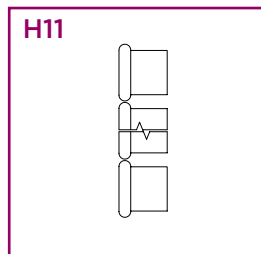
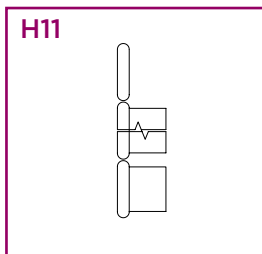
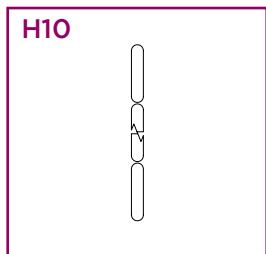
Output (Watts)	
ΔT50	ΔT56
328	380
410	475
492	570
574	665
656	760
738	855
820	950
902	1045
984	1140
1066	1235
1148	1331
1230	1426
1312	1521
1394	1616
1476	1711
1558	1806
1640	1901
1722	1996
1804	2091
1886	2186
1968	2281
2050	2376
2132	2471
2214	2566
2296	2661
2378	2756
2460	2851
2542	2946
2624	3041
2706	3136
2788	3231

Output (Watts)	
ΔT50	ΔT56
408	473
511	592
613	710
715	828
817	947
919	1065
1021	1183
1123	1302
1225	1420
1327	1538
1429	1657
1532	1775
1634	1893
1736	2012
1838	2130
1940	2248
2042	2367
2144	2485
2246	2603
2348	2722
2450	2840
2553	2958
2655	3077
2757	3195
2859	3313
2961	3432
3063	3550
3165	3668
3267	3787
3369	3905
3471	4023

Output (Watts)	
ΔT50	ΔT56
454	527
568	658
682	790
795	922
909	1053
1022	1185
1136	1317
1250	1448
1363	1580
1477	1712
1590	1843
1704	1975
1818	2107
1931	2238
2045	2370
2158	2502
2272	2633
2386	2765
2499	2897
2613	3028
2726	3160
2840	3292
2954	3423
3067	3555
3181	3687
3294	3818
3408	3950
3522	4082
3635	4213
3749	4345
3862	4477

Heat Emissions

Height 360mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
10.3
3.4
0.865

H11 (Reduced Fin)
288
14.7
3.4
2.953

H11 (Full Fin)
360
17.2
3.4
3.475

H20
n/a
20.08
6.1
1.625

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
143	166
179	207
214	248
250	290
286	331
321	372
357	414
393	455
428	497
464	538
500	579
536	621
571	662
607	703
643	745
678	786
714	828
750	869
785	910
821	952
857	993
893	1034
928	1076
964	1117
1000	1159
1035	1200
1071	1241
1107	1283
1142	1324
1178	1365
1214	1407

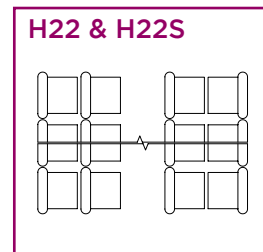
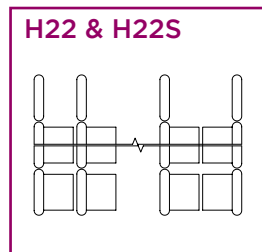
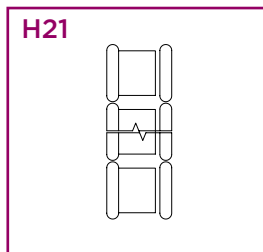
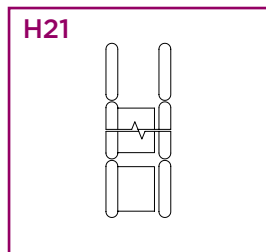
Output (Watts)	
ΔT50	ΔT56
253	293
316	366
379	439
442	513
506	586
569	659
632	732
695	806
758	879
822	952
885	1025
948	1099
1011	1172
1074	1245
1138	1318
1201	1392
1264	1465
1327	1538
1390	1611
1454	1685
1517	1758
1580	1831
1643	1904
1706	1978
1770	2051
1833	2124
1896	2197
1959	2271
2022	2344
2086	2417
2149	2490

Output (Watts)	
ΔT50	ΔT56
272	316
341	395
409	474
477	552
545	631
613	710
681	789
749	868
817	947
885	1026
953	1105
1022	1184
1090	1263
1158	1342
1226	1421
1294	1500
1362	1579
1430	1657
1498	1736
1566	1815
1634	1894
1703	1973
1771	2052
1839	2131
1907	2210
1975	2289
2043	2368
2111	2447
2179	2526
2247	2605
2315	2684

Output (Watts)	
ΔT50	ΔT56
270	313
338	392
406	470
473	548
541	627
608	705
676	783
744	862
811	940
879	1019
946	1097
1014	1175
1082	1254
1149	1332
1217	1410
1284	1489
1352	1567
1420	1645
1487	1724
1555	1802
1622	1880
1690	1959
1758	2037
1825	2115
1893	2194
1960	2272
2028	2350
2096	2429
2163	2507
2231	2585
2298	2664

Heat Emissions

Height 360mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
288
24.1
6.1
3.713

H21 (Full Fin)
360
26.59
6.1
4.235

H22 & H22S (Reduced Fin)
288
27.9
6.1
5.801

H22 & H22S (Full Fin)
360
27.4
6.1
6.845

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
384	445
480	556
576	668
672	779
768	890
864	1001
960	1113
1056	1224
1152	1335
1248	1446
1344	1558
1440	1669
1536	1780
1632	1891
1728	2003
1824	2114
1920	2225
2016	2337
2112	2448
2208	2559
2304	2670
2400	2782
2496	2893
2592	3004
2688	3115
2784	3227
2880	3338
2976	3449
3072	3560
3168	3672
3264	3783

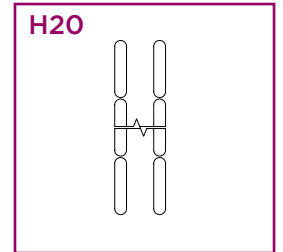
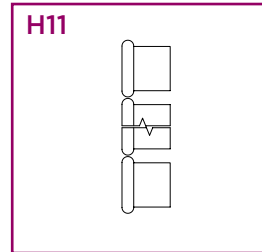
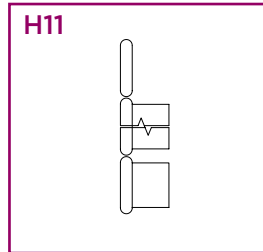
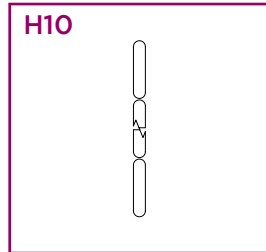
Output (Watts)	
ΔT50	ΔT56
392	454
490	567
587	681
685	794
783	908
881	1021
979	1135
1077	1248
1175	1362
1273	1475
1371	1589
1469	1702
1566	1815
1664	1929
1762	2042
1860	2156
1958	2269
2056	2383
2154	2496
2252	2610
2350	2723
2448	2837
2545	2950
2643	3064
2741	3177
2839	3291
2937	3404
3035	3517
3133	3631
3231	3744
3329	3858

Output (Watts)	
ΔT50	ΔT56
506	586
632	732
758	879
885	1025
1011	1172
1138	1318
1264	1465
1390	1611
1517	1758
1643	1904
1770	2051
1896	2197
2022	2344
2149	2490
2275	2637
2402	2783
2528	2930
2654	3076
2781	3223
2907	3369
3034	3516
3160	3662
3286	3809
3413	3955
3539	4102
3666	4248
3792	4395
3918	4541
4045	4688
4171	4834
4298	4981

Output (Watts)	
ΔT50	ΔT56
540	625
675	782
809	938
944	1094
1079	1251
1214	1407
1349	1563
1484	1720
1619	1876
1754	2033
1889	2189
2024	2345
2158	2502
2293	2658
2428	2814
2563	2971
2698	3127
2833	3283
2968	3440
3103	3596
3238	3752
3373	3909
3507	4065
3642	4221
3777	4378
3912	4534
4047	4690
4182	4847
4317	5003
4452	5160
4587	5316

Heat Emissions

Height 433mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
12.79
4.08
1.038

H11 (Reduced Fin)
360
17.72
4.08
3.648

H11 (Full Fin)
433
20.65
4.08
4.17

H20
n/a
24.19
7.31
1.95

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
178	206
223	258
267	309
312	361
356	413
401	464
445	516
490	567
534	619
579	670
623	722
668	774
712	825
757	877
801	928
846	980
890	1032
935	1083
979	1135
1024	1186
1068	1238
1113	1289
1157	1341
1202	1393
1246	1444
1291	1496
1335	1547
1380	1599
1424	1650
1469	1702
1513	1754

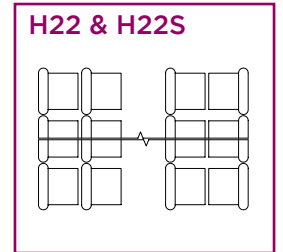
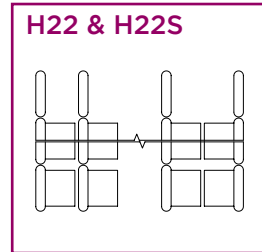
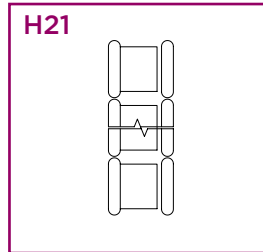
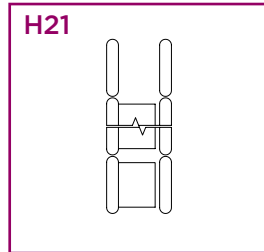
Output (Watts)	
ΔT50	ΔT56
289	335
362	419
434	503
506	587
578	670
651	754
723	838
795	922
868	1006
940	1089
1012	1173
1085	1257
1157	1341
1229	1425
1301	1508
1374	1592
1446	1676
1518	1760
1591	1844
1663	1927
1735	2011
1808	2095
1880	2179
1952	2262
2024	2346
2097	2430
2169	2514
2241	2598
2314	2681
2386	2765
2458	2849

Output (Watts)	
ΔT50	ΔT56
318	368
397	460
476	552
556	644
635	736
715	828
794	920
873	1012
953	1104
1032	1196
1112	1288
1191	1380
1270	1472
1350	1564
1429	1656
1509	1748
1588	1840
1667	1933
1747	2025
1826	2117
1906	2209
1985	2301
2064	2393
2144	2485
2223	2577
2303	2669
2382	2761
2461	2853
2541	2945
2620	3037
2700	3129

Output (Watts)	
ΔT50	ΔT56
324	375
405	469
485	563
566	656
647	750
728	844
809	938
890	1031
971	1125
1052	1219
1133	1313
1214	1406
1294	1500
1375	1594
1456	1688
1537	1781
1618	1875
1699	1969
1780	2063
1861	2157
1942	2250
2023	2344
2103	2438
2184	2532
2265	2625
2346	2719
2427	2813
2508	2907
2589	3000
2670	3094
2751	3188

Heat Emissions

Height 433mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
360
29.08
7.31
4.56

H21 (Full Fin)
433
32
7.31
5.082

H22 & H22S (Reduced Fin)
360
33.79
7.31
7.17

H22 & H22S (Full Fin)
433
35.81
7.31
8.214

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
444	515
555	643
666	772
777	901
888	1029
999	1158
1110	1286
1221	1415
1332	1544
1443	1672
1554	1801
1665	1930
1776	2058
1887	2187
1998	2316
2109	2444
2220	2573
2331	2702
2442	2830
2553	2959
2664	3088
2775	3216
2886	3345
2997	3474
3108	3602
3219	3731
3330	3859
3441	3988
3552	4117
3663	4245
3774	4374

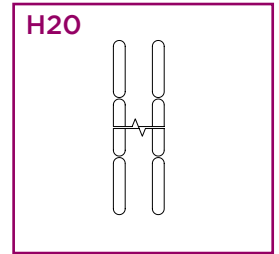
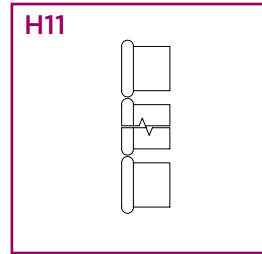
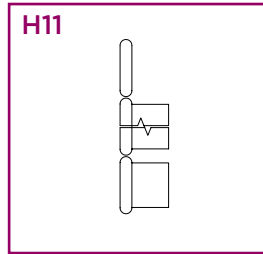
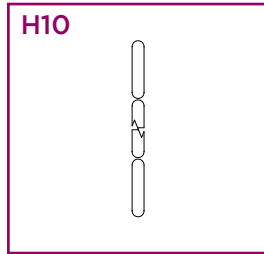
Output (Watts)	
ΔT50	ΔT56
453	525
567	657
680	788
793	919
906	1051
1020	1182
1133	1313
1246	1444
1360	1576
1473	1707
1586	1838
1700	1970
1813	2101
1926	2232
2039	2364
2153	2495
2266	2626
2379	2758
2493	2889
2606	3020
2719	3152
2833	3283
2946	3414
3059	3545
3172	3677
3286	3808
3399	3939
3512	4071
3626	4202
3739	4333
3852	4465

Output (Watts)	
ΔT50	ΔT56
582	675
728	843
873	1012
1019	1180
1164	1349
1310	1518
1455	1686
1601	1855
1746	2024
1892	2192
2037	2361
2183	2530
2328	2698
2474	2867
2619	3035
2765	3204
2910	3373
3056	3541
3201	3710
3347	3879
3492	4047
3638	4216
3783	4384
3929	4553
4074	4722
4220	4890
4365	5059
4511	5228
4656	5396
4802	5565
4947	5734

Output (Watts)	
ΔT50	ΔT56
622	721
778	901
933	1081
1089	1262
1244	1442
1400	1622
1555	1802
1711	1982
1866	2163
2022	2343
2177	2523
2333	2703
2488	2884
2644	3064
2799	3244
2955	3424
3110	3604
3266	3785
3421	3965
3577	4145
3732	4325
3888	4506
4043	4686
4199	4866
4354	5046
4510	5227
4665	5407
4821	5587
4976	5767
5132	5947
5287	6128

Heat Emissions

Height 505mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
15.25
4.8
1.211

H11 (Reduced Fin)
433
20.7
4.8
4.343

H11 (Full Fin)
505
24.05
4.8
4.865

H20
n/a
28.24
8.5
2.275

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
211	244
264	305
316	366
369	428
422	489
474	550
527	611
580	672
632	733
685	794
738	855
791	916
843	977
896	1038
949	1099
1001	1161
1054	1222
1107	1283
1159	1344
1212	1405
1265	1466
1318	1527
1370	1588
1423	1649
1476	1710
1528	1771
1581	1832
1634	1893
1686	1955
1739	2016
1792	2077

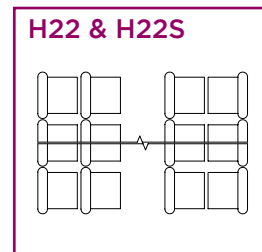
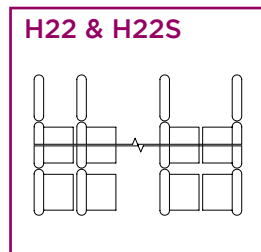
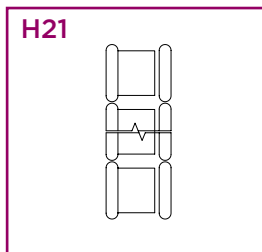
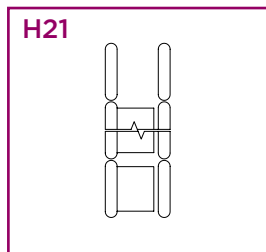
Output (Watts)	
ΔT50	ΔT56
327	379
409	473
490	568
572	663
654	758
735	852
817	947
899	1042
980	1136
1062	1231
1144	1326
1226	1420
1307	1515
1389	1610
1471	1704
1552	1799
1634	1894
1716	1988
1797	2083
1879	2178
1961	2273
2043	2367
2124	2462
2206	2557
2288	2651
2369	2746
2451	2841
2533	2935
2614	3030
2696	3125
2778	3219

Output (Watts)	
ΔT50	ΔT56
360	418
451	522
541	627
631	731
721	835
811	940
901	1044
991	1149
1081	1253
1171	1358
1261	1462
1352	1566
1442	1671
1532	1775
1622	1880
1712	1984
1802	2089
1892	2193
1982	2297
2072	2402
2162	2506
2253	2611
2343	2715
2433	2819
2523	2924
2613	3028
2703	3133
2793	3237
2883	3342
2973	3446
3063	3550

Output (Watts)	
ΔT50	ΔT56
377	437
472	546
566	656
660	765
754	874
849	984
943	1093
1037	1202
1132	1312
1226	1421
1320	1530
1415	1639
1509	1749
1603	1858
1697	1967
1792	2077
1886	2186
1980	2295
2075	2404
2169	2514
2263	2623
2358	2732
2452	2842
2546	2951
2640	3060
2735	3170
2829	3279
2923	3388
3018	3497
3112	3607
3206	3716

Heat Emissions

Height 505mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
433
34
8.5
5.407

H21 (Full Fin)
505
37.35
8.5
5.929

H22 & H22S (Reduced Fin)
433
39.6
8.5
8.539

H22 & H22S (Full Fin)
505
44.1
8.5
9.583

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
501	581
627	726
752	871
877	1017
1002	1162
1128	1307
1253	1452
1378	1597
1504	1743
1629	1888
1754	2033
1880	2178
2005	2324
2130	2469
2255	2614
2381	2759
2506	2904
2631	3050
2757	3195
2882	3340
3007	3485
3133	3631
3258	3776
3383	3921
3508	4066
3634	4211
3759	4357
3884	4502
4010	4647
4135	4792
4260	4938

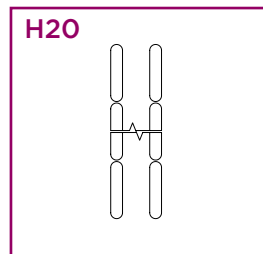
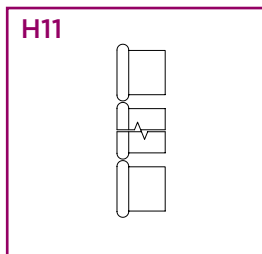
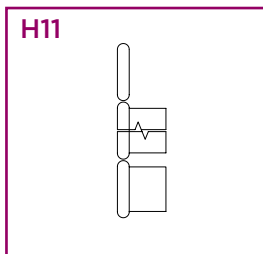
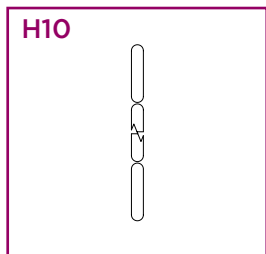
Output (Watts)	
ΔT50	ΔT56
512	593
640	742
768	890
896	1038
1024	1187
1152	1335
1280	1484
1408	1632
1536	1780
1664	1929
1792	2077
1920	2225
2048	2374
2176	2522
2304	2670
2432	2819
2560	2967
2688	3115
2816	3264
2944	3412
3072	3560
3200	3709
3328	3857
3456	4006
3584	4154
3712	4302
3840	4451
3968	4599
4096	4747
4224	4896
4352	5044

Output (Watts)	
ΔT50	ΔT56
654	758
817	947
980	1136
1144	1326
1307	1515
1471	1704
1634	1894
1797	2083
1961	2273
2124	2462
2288	2651
2451	2841
2614	3030
2778	3219
2941	3409
3105	3598
3268	3788
3431	3977
3595	4166
3758	4356
3922	4545
4085	4735
4248	4924
4412	5113
4575	5303
4739	5492
4902	5681
5065	5871
5229	6060
5392	6250
5556	6439

Output (Watts)	
ΔT50	ΔT56
700	811
875	1014
1049	1216
1224	1419
1399	1622
1574	1824
1749	2027
1924	2230
2099	2433
2274	2635
2449	2838
2624	3041
2798	3243
2973	3446
3148	3649
3323	3851
3498	4054
3673	4257
3848	4460
4023	4662
4198	4865
4373	5068
4547	5270
4722	5473
4897	5676
5072	5879
5247	6081
5422	6284
5597	6487
5772	6689
5947	6892

Heat Emissions

Height 578mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
17.74
5.61
1.384

H11 (Reduced Fin)
505
23.72
5.61
5.038

H11 (Full Fin)
578
27.5
5.61
5.56

H20
n/a
32.35
10.16
2.6

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
244	282
305	353
365	423
426	494
487	565
548	635
609	706
670	776
731	847
792	918
853	988
914	1059
974	1129
1035	1200
1096	1270
1157	1341
1218	1412
1279	1482
1340	1553
1401	1623
1462	1694
1523	1765
1583	1835
1644	1906
1705	1976
1766	2047
1827	2117
1888	2188
1949	2259
2010	2329
2071	2400

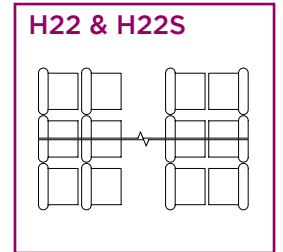
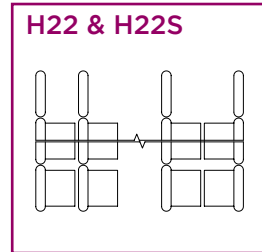
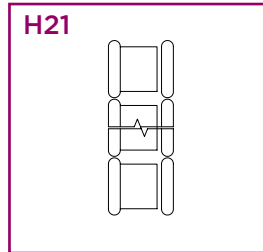
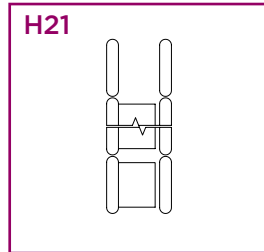
Output (Watts)	
ΔT50	ΔT56
367	426
459	532
551	638
643	745
734	851
826	958
918	1064
1010	1170
1102	1277
1193	1383
1285	1490
1377	1596
1469	1702
1561	1809
1652	1915
1744	2022
1836	2128
1928	2234
2020	2341
2111	2447
2203	2554
2295	2660
2387	2766
2479	2873
2570	2979
2662	3085
2754	3192
2846	3298
2938	3405
3029	3511
3121	3617

Output (Watts)	
ΔT50	ΔT56
402	466
503	583
604	700
704	816
805	933
905	1049
1006	1166
1107	1283
1207	1399
1308	1516
1408	1632
1509	1749
1610	1866
1710	1982
1811	2099
1911	2215
2012	2332
2113	2449
2213	2565
2314	2682
2414	2798
2515	2915
2616	3031
2716	3148
2817	3265
2917	3381
3018	3498
3119	3614
3219	3731
3320	3848
3420	3964

Output (Watts)	
ΔT50	ΔT56
432	501
540	626
648	751
756	876
864	1001
972	1127
1080	1252
1188	1377
1296	1502
1404	1627
1512	1752
1620	1878
1728	2003
1836	2128
1944	2253
2052	2378
2160	2503
2268	2629
2376	2754
2484	2879
2592	3004
2700	3129
2808	3254
2916	3380
3024	3505
3132	3630
3240	3755
3348	3880
3456	4006
3564	4131
3672	4256

Heat Emissions

Height 578mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
505
38.98
10.16
6.254

H21 (Full Fin)
578
42.76
10.16
6.776

H22 & H22S (Reduced Fin)
505
45.49
10.16
9.908

H22 & H22S (Full Fin)
578
52.51
10.16
10.952

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
557	645
696	807
835	968
974	1129
1114	1291
1253	1452
1392	1613
1531	1775
1670	1936
1810	2097
1949	2259
2088	2420
2227	2581
2366	2743
2506	2904
2645	3065
2784	3227
2923	3388
3062	3549
3202	3711
3341	3872
3480	4033
3619	4195
3758	4356
3898	4517
4037	4679
4176	4840
4315	5001
4454	5163
4594	5324
4733	5485

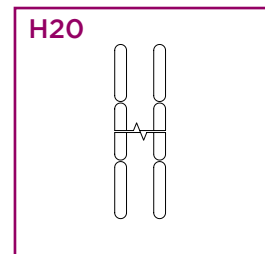
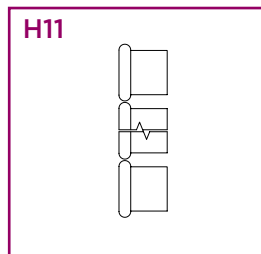
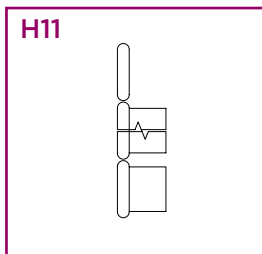
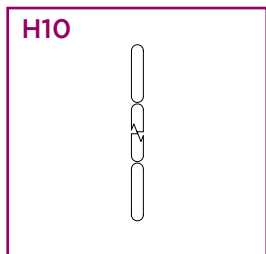
Output (Watts)	
ΔT50	ΔT56
569	660
712	825
854	990
996	1154
1138	1319
1281	1484
1423	1649
1565	1814
1708	1979
1850	2144
1992	2309
2135	2474
2277	2639
2419	2804
2561	2969
2704	3134
2846	3299
2988	3463
3131	3628
3273	3793
3415	3958
3558	4123
3700	4288
3842	4453
3984	4618
4127	4783
4269	4948
4411	5113
4554	5278
4696	5443
4838	5607

Output (Watts)	
ΔT50	ΔT56
723	838
904	1047
1084	1257
1265	1466
1446	1675
1626	1885
1807	2094
1988	2304
2168	2513
2349	2723
2530	2932
2711	3141
2891	3351
3072	3560
3253	3770
3433	3979
3614	4189
3795	4398
3975	4607
4156	4817
4337	5026
4518	5236
4698	5445
4879	5655
5060	5864
5240	6074
5421	6283
5602	6492
5782	6702
5963	6911
6144	7121

Output (Watts)	
ΔT50	ΔT56
775	898
969	1123
1163	1348
1357	1572
1550	1797
1744	2022
1938	2246
2132	2471
2326	2695
2519	2920
2713	3145
2907	3369
3101	3594
3295	3818
3488	4043
3682	4268
3876	4492
4070	4717
4264	4942
4457	5166
4651	5391
4845	5615
5039	5840
5233	6065
5426	6289
5620	6514
5814	6738
6008	6963
6202	7188
6395	7412
6589	7637

Heat Emissions

Height 650mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
20.2
6.4
1.557

H11 (Reduced Fin)
578
26.7
6.4
5.733

H11 (Full Fin)
650
30.9
6.4
6.255

H20
n/a
36.4
11.8
2.925

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
276	319
345	399
413	479
482	559
551	639
620	719
689	799
758	878
827	958
896	1038
965	1118
1034	1198
1102	1278
1171	1358
1240	1437
1309	1517
1378	1597
1447	1677
1516	1757
1585	1837
1654	1917
1723	1996
1791	2076
1860	2156
1929	2236
1998	2316
2067	2396
2136	2476
2205	2555
2274	2635
2343	2715

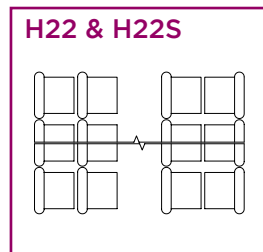
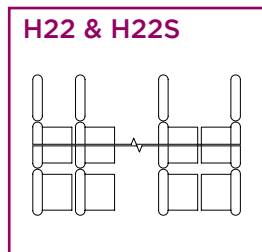
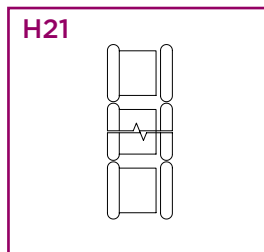
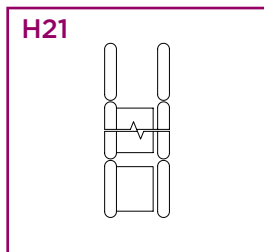
Output (Watts)	
ΔT50	ΔT56
410	475
512	593
614	712
717	831
819	949
922	1068
1024	1187
1126	1305
1229	1424
1331	1543
1434	1662
1536	1780
1638	1899
1741	2018
1843	2136
1946	2255
2048	2374
2150	2492
2253	2611
2355	2730
2458	2848
2560	2967
2662	3086
2765	3204
2867	3323
2970	3442
3072	3560
3174	3679
3277	3798
3379	3916
3482	4035

Output (Watts)	
ΔT50	ΔT56
443	513
554	642
664	770
775	898
886	1026
996	1155
1107	1283
1218	1411
1328	1540
1439	1668
1550	1796
1661	1925
1771	2053
1882	2181
1993	2309
2103	2438
2214	2566
2325	2694
2435	2823
2546	2951
2657	3079
2768	3208
2878	3336
2989	3464
3100	3592
3210	3721
3321	3849
3432	3977
3542	4106
3653	4234
3764	4362

Output (Watts)	
ΔT50	ΔT56
487	564
609	705
730	846
852	987
974	1128
1095	1269
1217	1411
1339	1552
1460	1693
1582	1834
1704	1975
1826	2116
1947	2257
2069	2398
2191	2539
2312	2680
2434	2821
2556	2962
2677	3103
2799	3244
2921	3385
3043	3526
3164	3667
3286	3808
3408	3949
3529	4090
3651	4232
3773	4373
3894	4514
4016	4655
4138	4796

Heat Emissions

Height 650mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
578
43.9
11.8
7.101

H21 (Full Fin)
650
48.1
11.8
7.623

H22 & H22S (Reduced Fin)
578
51.3
11.8
11.277

H22 & H22S (Full Fin)
650
60.8
11.8
12.321

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
610	707
763	884
915	1060
1068	1237
1220	1414
1373	1591
1525	1767
1678	1944
1830	2121
1983	2298
2135	2474
2288	2651
2440	2828
2593	3005
2745	3181
2898	3358
3050	3535
3203	3712
3355	3888
3508	4065
3660	4242
3813	4419
3965	4595
4118	4772
4270	4949
4423	5126
4575	5302
4728	5479
4880	5656
5033	5833
5185	6009

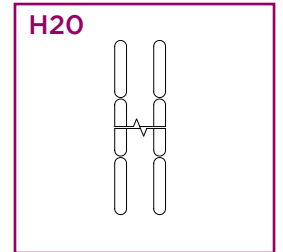
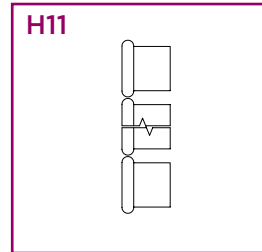
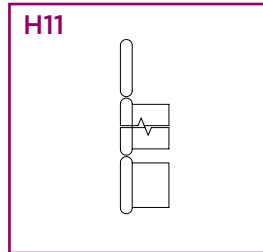
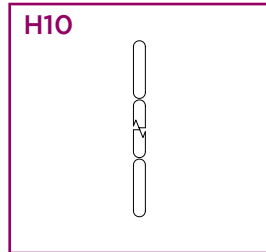
Output (Watts)	
ΔT50	ΔT56
624	723
780	904
936	1085
1092	1266
1248	1446
1404	1627
1560	1808
1716	1989
1872	2170
2028	2350
2184	2531
2340	2712
2496	2893
2652	3074
2808	3254
2964	3435
3120	3616
3276	3797
3432	3978
3588	4158
3744	4339
3900	4520
4056	4701
4212	4882
4368	5063
4524	5243
4680	5424
4836	5605
4992	5786
5148	5967
5304	6147

Output (Watts)	
ΔT50	ΔT56
788	913
985	1141
1181	1369
1378	1597
1575	1826
1772	2054
1969	2282
2166	2510
2363	2738
2560	2967
2757	3195
2954	3423
3150	3651
3347	3880
3544	4108
3741	4336
3938	4564
4135	4792
4332	5021
4529	5249
4726	5477
4923	5705
5119	5933
5316	6162
5513	6390
5710	6618
5907	6846
6104	7074
6301	7303
6498	7531
6695	7759

Output (Watts)	
ΔT50	ΔT56
848	982
1060	1228
1271	1474
1483	1719
1695	1965
1907	2210
2119	2456
2331	2702
2543	2947
2755	3193
2967	3438
3179	3684
3390	3929
3602	4175
3814	4421
4026	4666
4238	4912
4450	5157
4662	5403
4874	5649
5086	5894
5298	6140
5509	6385
5721	6631
5933	6877
6145	7122
6357	7368
6569	7613
6781	7859
6993	8105
7205	8350

Heat Emissions

Height 723mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
22.28
6.84
1.73

H11 (Reduced Fin)
650
33
6.84
6.428

H11 (Full Fin)
723
34.15
6.84
6.95

H20
n/a
40.38
13.21
3.25

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
307	356
384	445
461	534
538	623
614	712
691	801
768	890
845	979
922	1068
998	1157
1075	1246
1152	1335
1229	1424
1306	1513
1382	1602
1459	1691
1536	1780
1613	1869
1690	1958
1766	2047
1843	2136
1920	2225
1997	2314
2074	2403
2150	2492
2227	2581
2304	2670
2381	2759
2458	2848
2534	2937
2611	3026

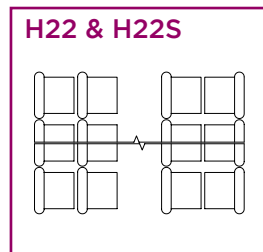
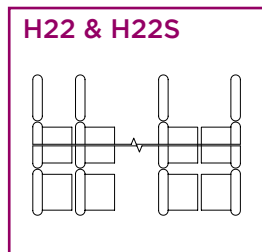
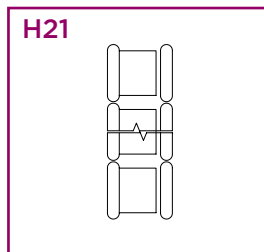
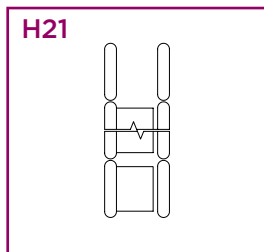
Output (Watts)	
ΔT50	ΔT56
455	528
569	659
683	791
797	923
910	1055
1024	1187
1138	1319
1252	1451
1366	1583
1479	1715
1593	1847
1707	1978
1821	2110
1935	2242
2048	2374
2162	2506
2276	2638
2390	2770
2504	2902
2617	3034
2731	3165
2845	3297
2959	3429
3073	3561
3186	3693
3300	3825
3414	3957
3528	4089
3642	4221
3755	4353
3869	4484

Output (Watts)	
ΔT50	ΔT56
482	559
603	699
724	839
844	978
965	1118
1085	1258
1206	1398
1327	1538
1447	1677
1568	1817
1688	1957
1809	2097
1930	2236
2050	2376
2171	2516
2291	2656
2412	2796
2533	2935
2653	3075
2774	3215
2894	3355
3015	3494
3136	3634
3256	3774
3377	3914
3497	4053
3618	4193
3739	4333
3859	4473
3980	4613
4100	4752

Output (Watts)	
ΔT50	ΔT56
543	630
679	787
815	944
951	1102
1086	1259
1222	1417
1358	1574
1494	1731
1630	1889
1765	2046
1901	2203
2037	2361
2173	2518
2309	2676
2444	2833
2580	2990
2716	3148
2852	3305
2988	3463
3123	3620
3259	3777
3395	3935
3531	4092
3667	4250
3802	4407
3938	4564
4074	4722
4210	4879
4346	5037
4481	5194
4617	5351

Heat Emissions

Height 723mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
650
48.82
13.21
7.948

H21 (Full Fin)
723
53.26
13.21
8.47

H22 & H22S (Reduced Fin)
650
57.06
13.21
12.646

H22 & H22S (Full Fin)
723
67.56
13.21
13.69

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
662	767
828	959
993	1151
1159	1343
1324	1535
1490	1726
1655	1918
1821	2110
1986	2302
2152	2494
2317	2685
2483	2877
2648	3069
2814	3261
2979	3453
3145	3644
3310	3836
3476	4028
3641	4220
3807	4412
3972	4604
4138	4795
4303	4987
4469	5179
4634	5371
4800	5563
4965	5754
5131	5946
5296	6138
5462	6330
5627	6522

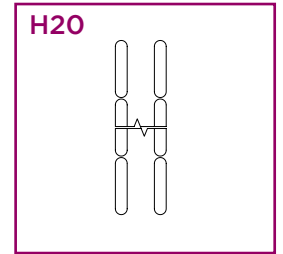
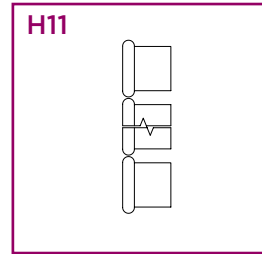
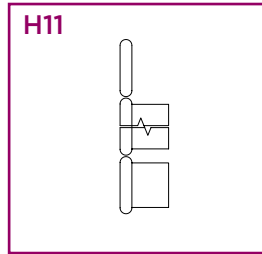
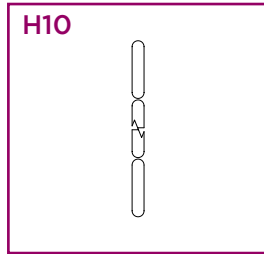
Output (Watts)	
ΔT50	ΔT56
678	786
848	983
1018	1179
1187	1376
1357	1573
1526	1769
1696	1966
1866	2162
2035	2359
2205	2555
2374	2752
2544	2948
2714	3145
2883	3342
3053	3538
3222	3735
3392	3931
3562	4128
3731	4324
3901	4521
4070	4718
4240	4914
4410	5111
4579	5307
4749	5504
4918	5700
5088	5897
5258	6094
5427	6290
5597	6487
5766	6683

Output (Watts)	
ΔT50	ΔT56
850	986
1063	1232
1276	1478
1488	1725
1701	1971
1913	2218
2126	2464
2339	2710
2551	2957
2764	3203
2976	3450
3189	3696
3402	3942
3614	4189
3827	4435
4039	4682
4252	4928
4465	5174
4677	5421
4890	5667
5102	5914
5315	6160
5528	6406
5740	6653
5953	6899
6165	7146
6378	7392
6591	7639
6803	7885
7016	8131
7228	8378

Output (Watts)	
ΔT50	ΔT56
918	1064
1148	1331
1378	1597
1607	1863
1837	2129
2066	2395
2296	2661
2526	2927
2755	3193
2985	3459
3214	3725
3444	3992
3674	4258
3903	4524
4133	4790
4362	5056
4592	5322
4822	5588
5051	5854
5281	6120
5510	6387
5740	6653
5970	6919
6199	7185
6429	7451
6658	7717
6888	7983
7118	8249
7347	8515
7577	8782
7806	9048

Heat Emissions

Height 795mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
24.32
7.56
1.903

H11 (Reduced Fin)
723
36.35
7.56
7.123

H11 (Full Fin)
795
37.35
7.56
7.645

H20
n/a
44.32
14.59
3.575

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
337	391
422	489
506	586
590	684
674	782
759	879
843	977
927	1075
1012	1172
1096	1270
1180	1368
1265	1466
1349	1563
1433	1661
1517	1759
1602	1856
1686	1954
1770	2052
1855	2149
1939	2247
2023	2345
2108	2443
2192	2540
2276	2638
2360	2736
2445	2833
2529	2931
2613	3029
2698	3127
2782	3224
2866	3322

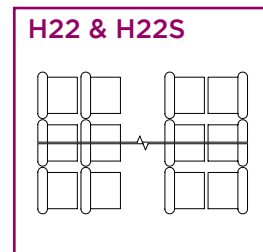
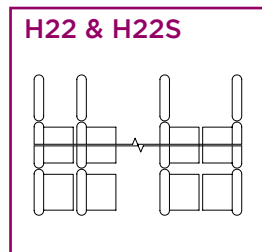
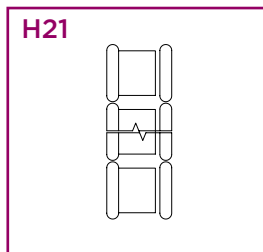
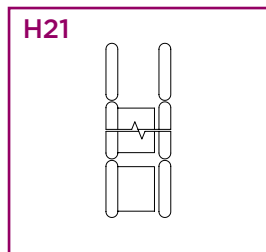
Output (Watts)	
ΔT50	ΔT56
503	583
629	729
755	875
881	1021
1006	1166
1132	1312
1258	1458
1384	1604
1510	1750
1635	1895
1761	2041
1887	2187
2013	2333
2139	2479
2264	2624
2390	2770
2516	2916
2642	3062
2768	3208
2893	3353
3019	3499
3145	3645
3271	3791
3397	3937
3522	4082
3648	4228
3774	4374
3900	4520
4026	4666
4151	4811
4277	4957

Output (Watts)	
ΔT50	ΔT56
521	604
651	755
781	905
911	1056
1042	1207
1172	1358
1302	1509
1432	1660
1562	1811
1693	1962
1823	2113
1953	2264
2083	2414
2213	2565
2344	2716
2474	2867
2604	3018
2734	3169
2864	3320
2995	3471
3125	3622
3255	3773
3385	3923
3515	4074
3646	4225
3776	4376
3906	4527
4036	4678
4166	4829
4297	4980
4427	5131

Output (Watts)	
ΔT50	ΔT56
600	695
750	869
900	1043
1050	1217
1200	1391
1350	1565
1500	1739
1650	1912
1800	2086
1950	2260
2100	2434
2250	2608
2400	2782
2550	2955
2700	3129
2850	3303
3000	3477
3150	3651
3300	3825
3450	3999
3600	4172
3750	4346
3900	4520
4050	4694
4200	4868
4350	5042
4500	5216
4650	5389
4800	5563
4950	5737
5100	5911

Heat Emissions

Height 795mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
723
53.68
14.59
8.795

H21 (Full Fin)
795
58.34
14.59
9.317

H22 & H22S (Reduced Fin)
723
62.74
14.59
14.015

H22 & H22S (Full Fin)
795
74.24
14.59
15.059

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
712	825
890	1032
1068	1238
1246	1444
1424	1650
1602	1857
1780	2063
1958	2269
2136	2476
2314	2682
2492	2888
2670	3095
2848	3301
3026	3507
3204	3713
3382	3920
3560	4126
3738	4332
3916	4539
4094	4745
4272	4951
4450	5158
4628	5364
4806	5570
4984	5776
5162	5983
5340	6189
5518	6395
5696	6602
5874	6808
6052	7014

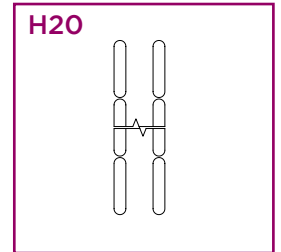
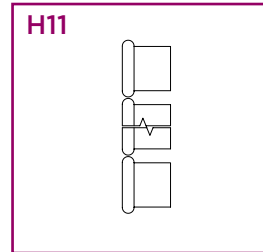
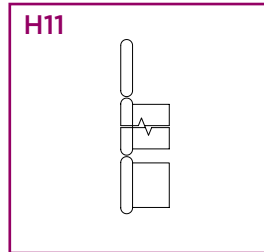
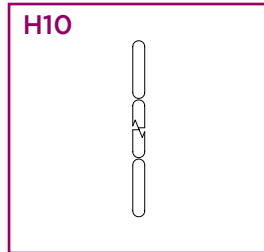
Output (Watts)	
ΔT50	ΔT56
730	847
913	1058
1096	1270
1278	1481
1461	1693
1643	1905
1826	2116
2009	2328
2191	2540
2374	2751
2556	2963
2739	3175
2922	3386
3104	3598
3287	3809
3469	4021
3652	4233
3835	4444
4017	4656
4200	4868
4382	5079
4565	5291
4748	5502
4930	5714
5113	5926
5295	6137
5478	6349
5661	6561
5843	6772
6026	6984
6208	7196

Output (Watts)	
ΔT50	ΔT56
910	1054
1137	1318
1364	1581
1592	1845
1819	2108
2047	2372
2274	2636
2501	2899
2729	3163
2956	3426
3184	3690
3411	3953
3638	4217
3866	4480
4093	4744
4321	5008
4548	5271
4775	5535
5003	5798
5230	6062
5458	6325
5685	6589
5912	6852
6140	7116
6367	7380
6595	7643
6822	7907
7049	8170
7277	8434
7504	8697
7732	8961

Output (Watts)	
ΔT50	ΔT56
986	1143
1233	1429
1480	1715
1726	2001
1973	2286
2219	2572
2466	2858
2713	3144
2959	3430
3206	3716
3452	4001
3699	4287
3946	4573
4192	4859
4439	5145
4685	5430
4932	5716
5179	6002
5425	6288
5672	6574
5918	6859
6165	7145
6412	7431
6658	7717
6905	8003
7151	8288
7398	8574
7645	8860
7891	9146
8138	9432
8384	9718

Heat Emissions

Height 868mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H10
n/a
26.4
8.3
2.076

H11 (Reduced Fin)
795
39.06
8.3
7.818

H11 (Full Fin)
868
40.6
8.3
8.34

H20
n/a
48.3
16
3.9

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
367	425
459	531
550	638
642	744
734	850
825	957
917	1063
1009	1169
1100	1275
1192	1382
1284	1488
1376	1594
1467	1700
1559	1807
1651	1913
1742	2019
1834	2126
1926	2232
2017	2338
2109	2444
2201	2551
2293	2657
2384	2763
2476	2870
2568	2976
2659	3082
2751	3188
2843	3295
2934	3401
3026	3507
3118	3614

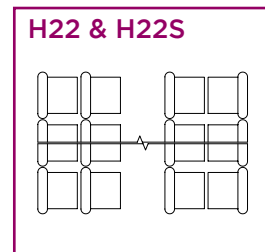
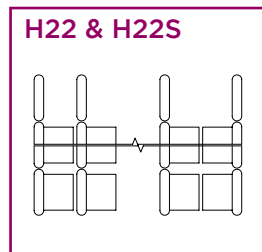
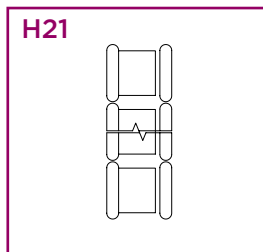
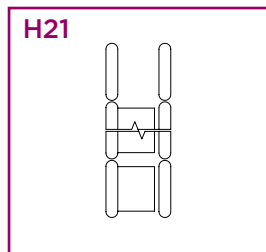
Output (Watts)	
ΔT50	ΔT56
556	644
695	805
833	966
972	1127
1111	1288
1250	1449
1389	1610
1528	1771
1667	1932
1806	2093
1945	2254
2084	2415
2222	2576
2361	2737
2500	2898
2639	3059
2778	3220
2917	3381
3056	3542
3195	3703
3334	3864
3473	4025
3611	4186
3750	4347
3889	4508
4028	4669
4167	4830
4306	4991
4445	5152
4584	5313
4723	5473

Output (Watts)	
ΔT50	ΔT56
558	647
698	809
838	971
977	1133
1117	1294
1256	1456
1396	1618
1536	1780
1675	1942
1815	2103
1954	2265
2094	2427
2234	2589
2373	2751
2513	2912
2652	3074
2792	3236
2932	3398
3071	3560
3211	3721
3350	3883
3490	4045
3630	4207
3769	4369
3909	4530
4048	4692
4188	4854
4328	5016
4467	5177
4607	5339
4746	5501

Output (Watts)	
ΔT50	ΔT56
658	763
823	954
988	1145
1152	1335
1317	1526
1481	1717
1646	1908
1811	2098
1975	2289
2140	2480
2304	2671
2469	2862
2634	3052
2798	3243
2963	3434
3127	3625
3292	3815
3457	4006
3621	4197
3786	4388
3950	4579
4115	4769
4280	4960
4444	5151
4609	5342
4773	5532
4938	5723
5103	5914
5267	6105
5432	6295
5596	6486

Heat Emissions

Height 868mm



Style:
Fin Height (mm)
Dry Weight (kg/m)
Water Content (l/m)
Surface Area (m ² /m)

H21 (Reduced Fin)
795
58.6
16
9.642

H21 (Full Fin)
868
63.5
16
10.164

H22 & H22S (Reduced Fin)
795
68.5
16
15.384

H22 & H22S (Full Fin)
868
81
16
16.428

Length (mm)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400

Output (Watts)	
ΔT50	ΔT56
761	882
952	1103
1142	1323
1332	1544
1522	1764
1713	1985
1903	2206
2093	2426
2284	2647
2474	2867
2664	3088
2855	3308
3045	3529
3235	3749
3425	3970
3616	4191
3806	4411
3996	4632
4187	4852
4377	5073
4567	5293
4758	5514
4948	5735
5138	5955
5328	6176
5519	6396
5709	6617
5899	6837
6090	7058
6280	7278
6470	7499

Output (Watts)	
ΔT50	ΔT56
782	906
978	1133
1173	1360
1369	1586
1564	1813
1760	2039
1955	2266
2151	2492
2346	2719
2542	2946
2737	3172
2933	3399
3128	3625
3324	3852
3519	4079
3715	4305
3910	4532
4106	4758
4301	4985
4497	5211
4692	5438
4888	5665
5083	5891
5279	6118
5474	6344
5670	6571
5865	6798
6061	7024
6256	7251
6452	7477
6647	7704

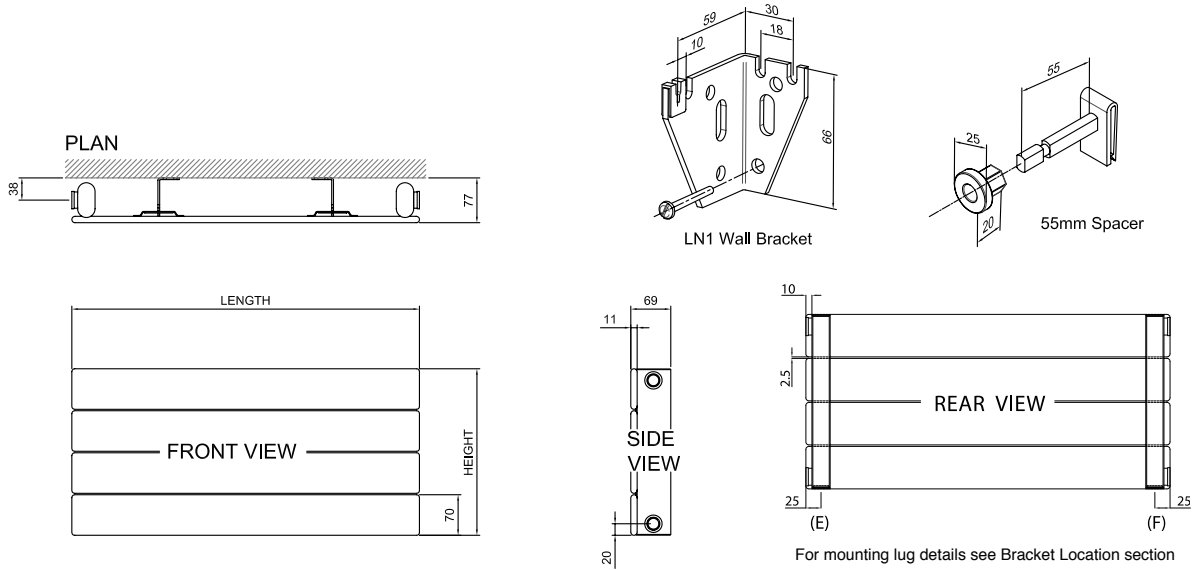
Output (Watts)	
ΔT50	ΔT56
967	1121
1209	1401
1451	1681
1693	1962
1934	2242
2176	2522
2418	2802
2660	3083
2902	3363
3143	3643
3385	3923
3627	4204
3869	4484
4111	4764
4352	5044
4594	5325
4836	5605
5078	5885
5320	6165
5561	6446
5803	6726
6045	7006
6287	7286
6529	7567
6770	7847
7012	8127
7254	8407
7496	8688
7738	8968
7979	9248
8221	9528

Output (Watts)	
ΔT50	ΔT56
1054	1221
1317	1526
1580	1832
1844	2137
2107	2442
2371	2748
2634	3053
2897	3358
3161	3663
3424	3969
3688	4274
3951	4579
4214	4884
4478	5190
4741	5495
5005	5800
5268	6106
5531	6411
5795	6716
6058	7021
6322	7327
6585	7632
6848	7937
7112	8243
7375	8548
7639	8853
7902	9158
8165	9464
8429	9769
8692	10074
8956	10380

Applications

Type H10 - Standard model shown with 1/2" (15mm) ABCD connections

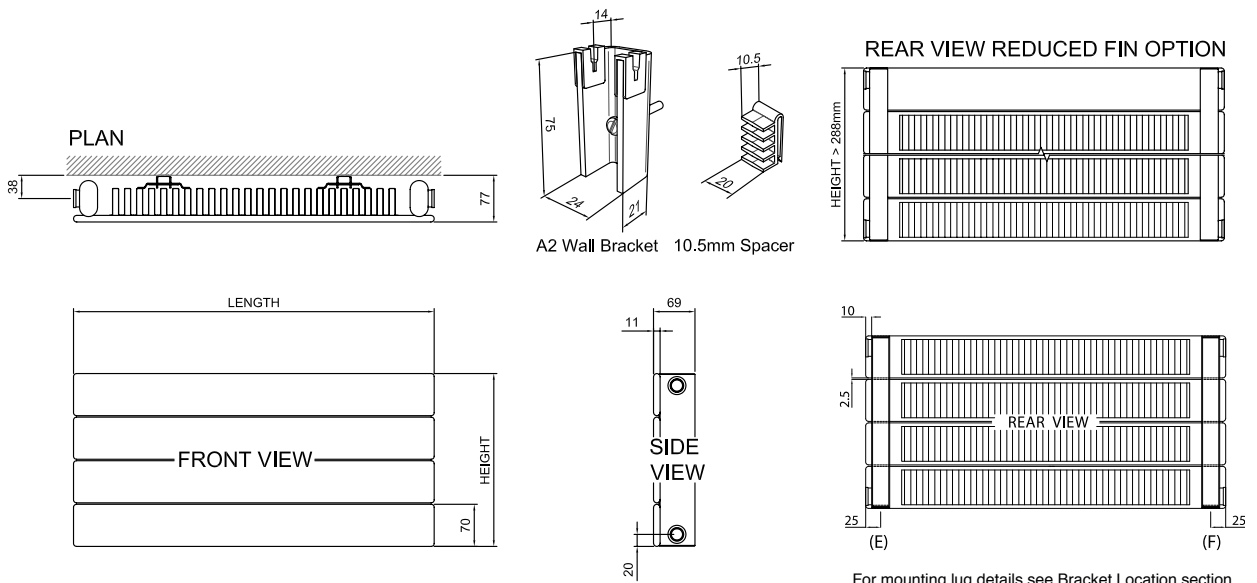
Length, available from 400mm to 3400mm in increments of 100mm.
 Height, available from 143mm to 868mm in increments of 72.5mm.



Type H11 - Standard model shown with 1/2" (15mm) ABCD connections

Length, available from 400mm to 3400mm in increments of 100mm.
 Height, available from 143mm to 868mm in increments of 72.5mm.

Note: Reduced fin option is available on all radiators.
 However, a reduced fin is not standard on radiators less than 360mm high.



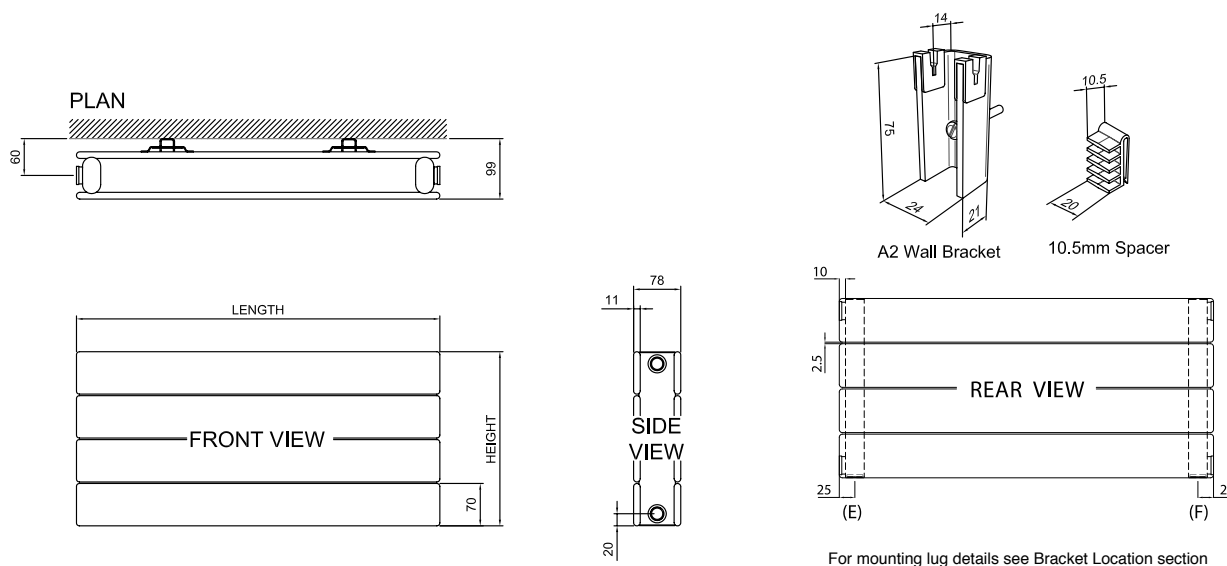
Note: Please draw your attention to the: — Full or reduced fin option
 All dimensions are in millimetres

Applications

Type H20 - Standard model shown with 1/2" (15mm) ABCD connections

Length, available from 400mm to 3400mm in increments of 100mm.

Height, available from 143mm to 868mm in increments of 72.5mm.



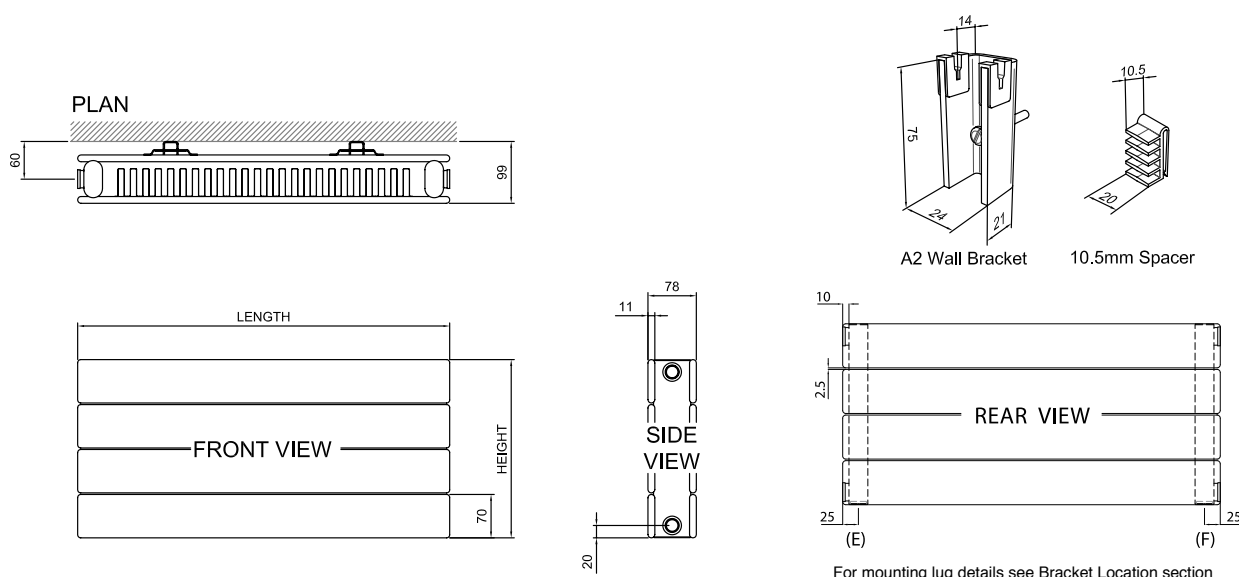
Type H21 - Standard model shown with 1/2" (15mm) ABCD connections

Length, available from 400mm to 3400mm in increments of 100mm.

Height, available from 143mm to 868mm in increments of 72.5mm.

Note: Reduced fin option is available on all radiators.

However, a reduced fin is not standard on radiators less than 360mm high.



Note: Please draw your attention to the: — Full or reduced fin option
 All dimensions are in millimetres

Applications

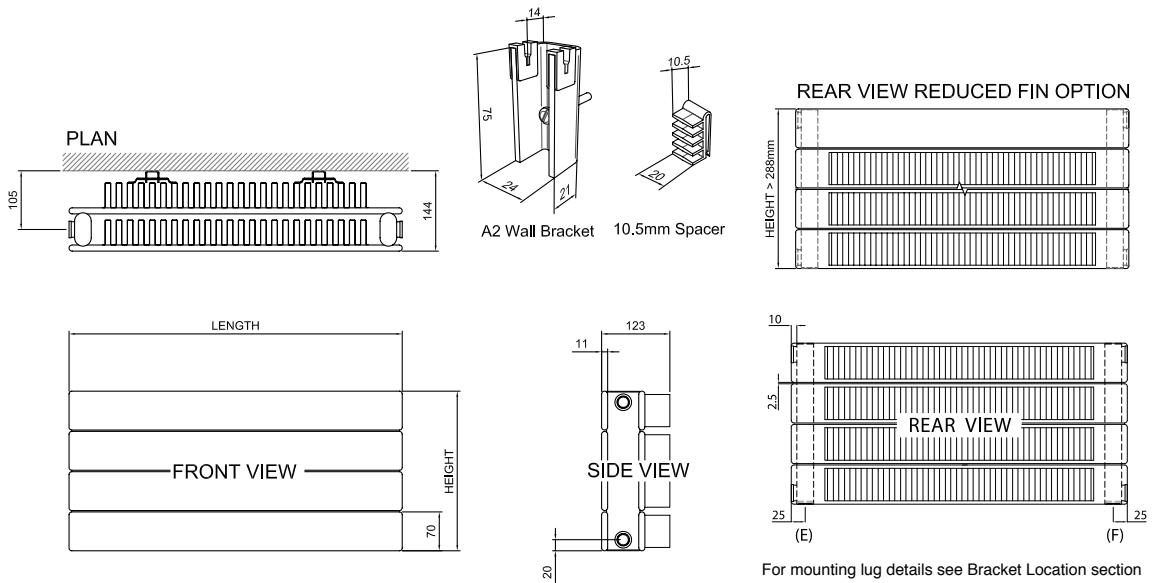
Type H22 - Standard model shown with 1/2" (15mm) ABCD connections

Length, available from 400mm to 3400mm in increments of 100mm.

Height, available from 143mm to 868mm in increments of 72.5mm.

Note: Reduced fin option is available on all radiators.

However, a reduced fin is not standard on radiators less than 360mm high.



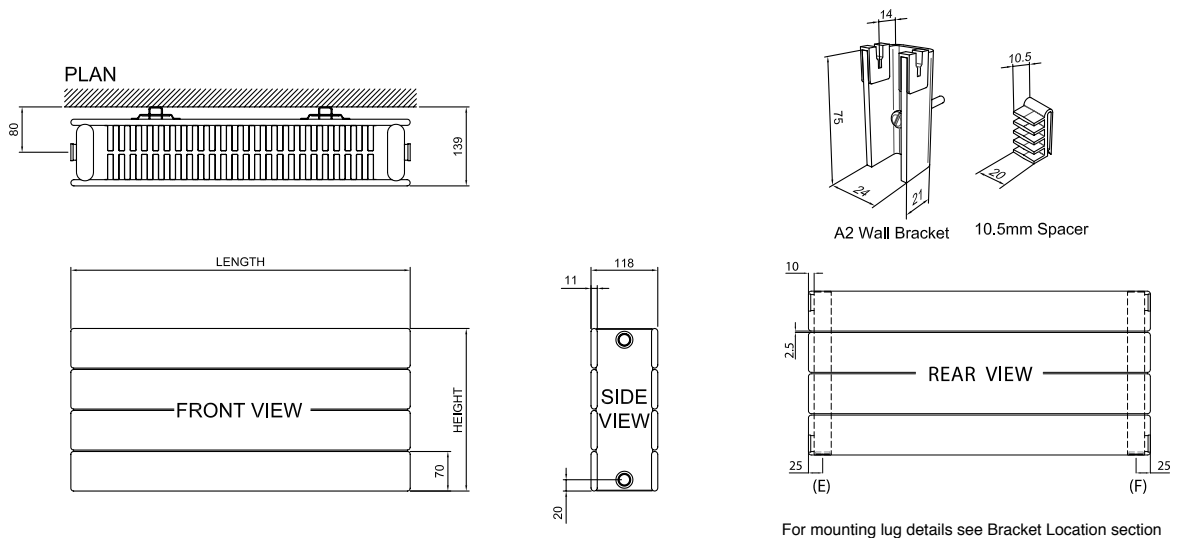
Type H22S - Standard model shown with 1/2" (15mm) ABCD connections

Length, available from 400mm to 3400mm in increments of 100mm.

Height, available from 143mm to 868mm in increments of 72.5mm.

Note: Reduced fin option is available on all radiators.

However, a reduced fin is not standard on radiators less than 360mm high.

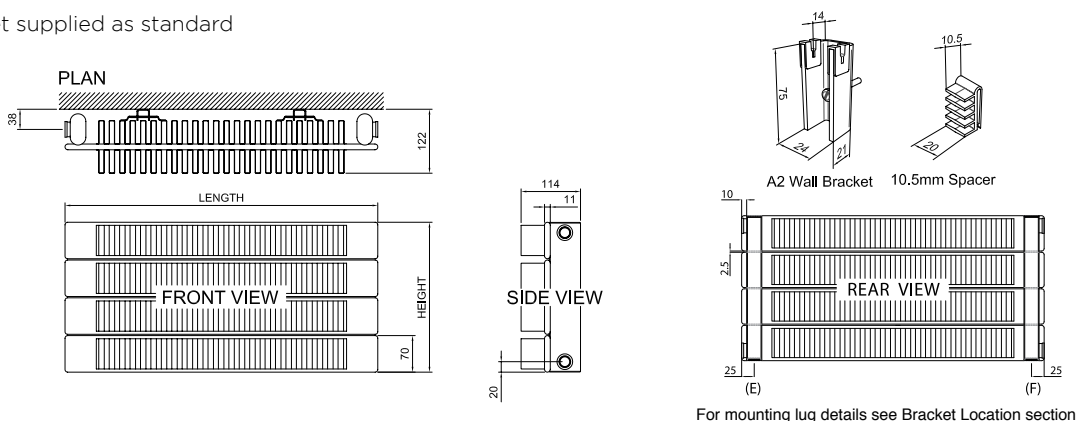


Note: Please draw your attention to the following: — Full or reduced fin option — H22 and H22S types are different products
 All dimensions are in millimetres

Applications

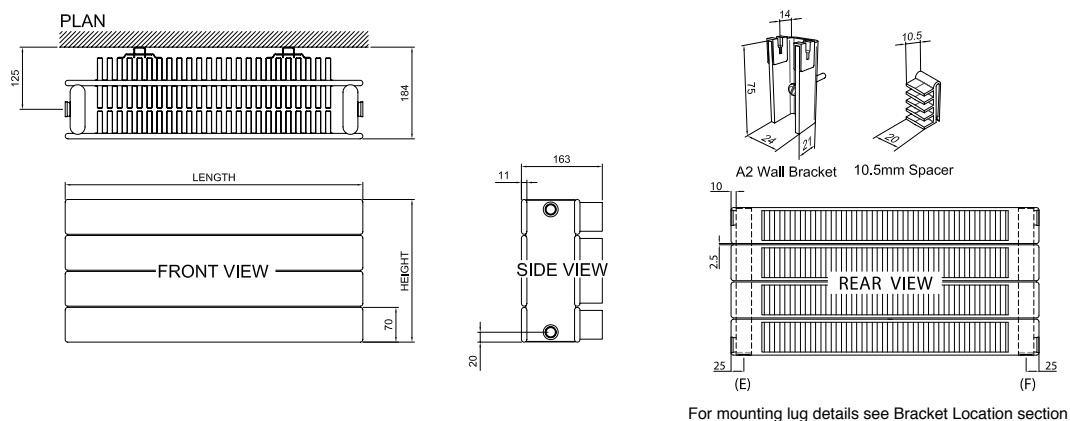
Type H12 - Standard model shown with 1/2" (15mm) ABCD connections

The Extended Range The extended range comprises of the H12, H23 and H24. These high output convectors are available on request. Length, available from 400mm to 3400mm in increments of 100mm. Height, available from 143mm to 868mm in increments of 72.5mm. A2 type wall bracket supplied as standard



For mounting lug details see Bracket Location section

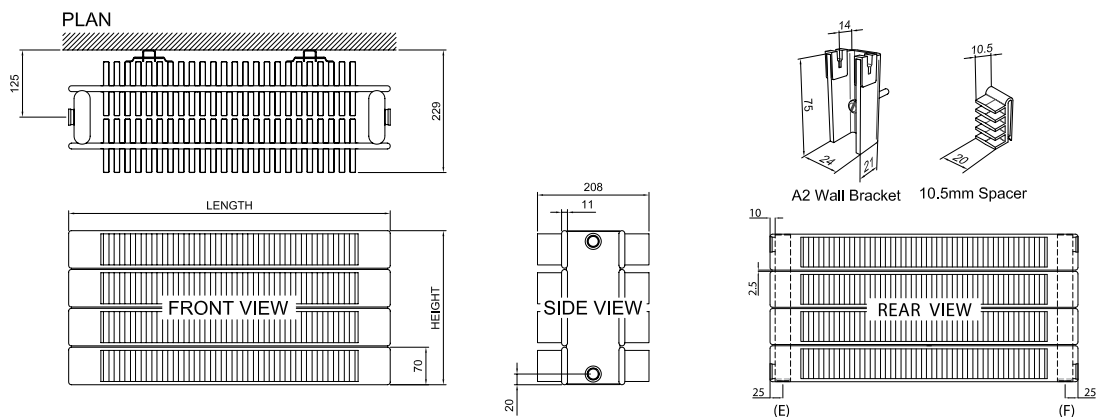
Type H23 - Standard model shown with 1/2" (15mm) ABCD connections



For mounting lug details see Bracket Location section

Type H24 - Standard model shown with 1/2" (15mm) ABCD connections

Caution: H12 and H24 radiators should not be used without a cover such as a LST panel.



For mounting lug details see Bracket Location section

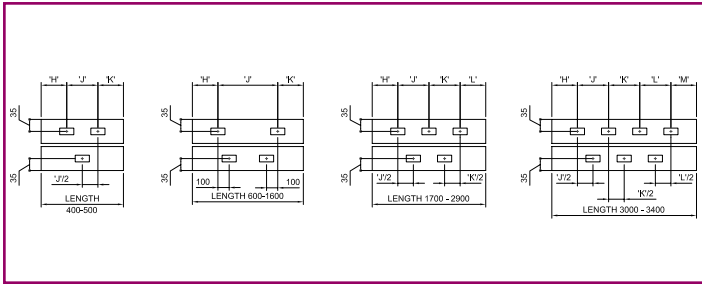
All dimensions are in millimetres

Applications

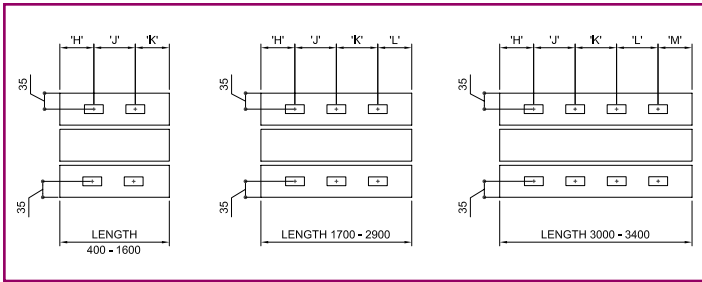
Bracket Locations

Support positions 400mm - 3400mm long for all horizontal panels

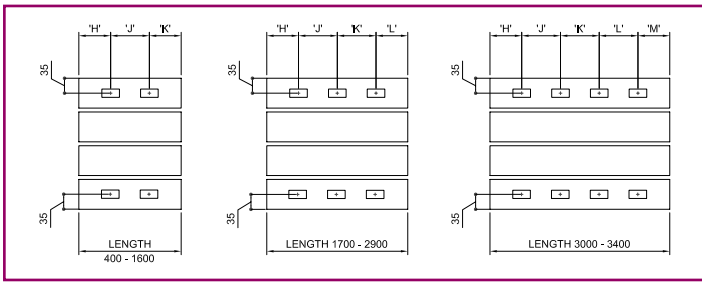
143mm High Horizontal Panel Radiators



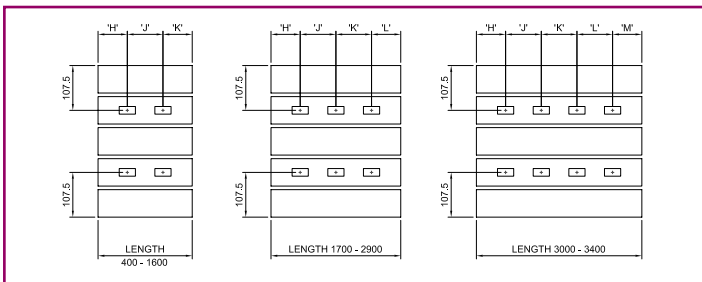
215mm High Horizontal Panel Radiators



288mm High Horizontal Panel Radiators



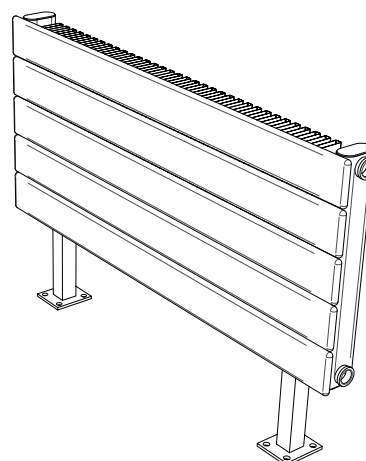
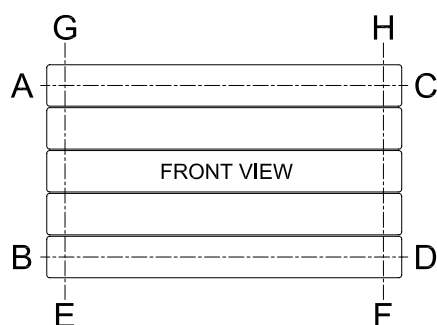
360mm - 868mm High Horizontal Panel Radiators



Length	H'	J'	K'	L'	M'
400	130	140	130	-	-
500	140	220	140	-	-
600	150	300	150	-	-
700	150	400	150	-	-
800	140	520	140	-	-
900	150	600	150	-	-
1000	140	720	140	-	-
1100	150	800	150	-	-
1200	150	900	150	-	-
1300	140	1020	140	-	-
1400	150	1100	150	-	-
1500	150	1200	150	-	-
1600	140	1320	140	-	-
1700	150	700	700	150	-
1800	150	720	780	150	-
1900	150	800	800	150	-
2000	150	820	880	150	-
2100	140	900	920	140	-
2200	150	920	980	150	-
2300	150	1000	1000	150	-
2400	140	1060	1060	140	-
2500	150	1100	1100	150	-
2600	150	1120	1180	150	-
2700	140	1200	1220	140	-
2800	150	1220	1280	150	-
2900	140	1300	1320	140	-
3000	150	900	900	900	150
3100	150	920	960	920	150
3200	140	980	960	980	140
3300	150	1000	1000	1000	150
3400	150	1040	1020	1040	150

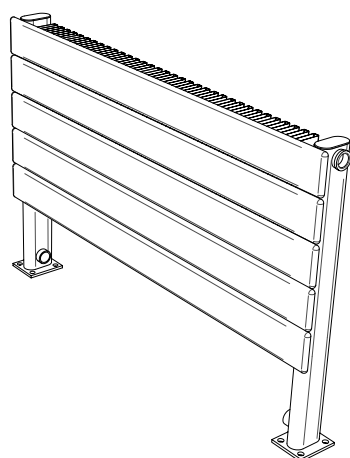
Features and Options

Merriott Radiators offers a wide range of additional features and options for our standard radiators. A selection of these are shown in this section. Please contact Merriott Radiators to discuss any non-standard application you may have in mind.



Connection Variations

A, B, C, D, E, F, G and H denote connection positions. The standard connection configuration is ABCD. Other connection configurations, which must be specified at order stage, include: EFAC and GHBD.



Extended Header Feet/ Live Header Feet

Extended header (PP-F003) and Live header feet (PP-F029) are available on all horizontal panel radiators. They are ideal when the pipework is to be concealed under a raised access floor or when wall mounting is not possible. The height of the foot and the orientation of the connections on the feet are to be specified by the client.

Note: The height of the extended header feet and live header feet are in increments of 72.5mm

The height of the centre of the connection off the ground will always be 25mm and this connection will always be a 1/2" (15mm) BSP.

Please note: That where the overall radiator height (including the feet) exceeds 505mm, additional top stays or supports are recommended to ensure stability.

Loose Feet

All horizontal panel radiators except the H10 & H20 can be mounted on loose feet. These are ideal where wall mounting is limited or impossible. The feet are secured to the floor and have prongs/ears which fit between the fin flutes and hold the unit steady.

See drawing on page 33 for the different types of feet available.
Please note: For all loose feet over 150mm high we recommend the box section type rather than the folded type.
 For H11/H12/H21/H22 radiators PP-F013, PP-F022
 For H22S/H23/H24 radiators PP-F014, PP-F023

Welded Feet

These are factory fitted (welded to the radiator) which minimises installation time for the client. All horizontal panel radiators can be mounted on welded feet
 For H10 radiator PP-F028
 For H11/H12/H21/H22/ H22S/H23/H24 radiators PP-F026

Bolt-on Feet

All horizontal panel radiators except the H10 can be mounted on bolt-on feet. The feet are secured to the floor and connected to the radiator via M8 Bolts (2 per foot). This means the radiator can be removed quite easily with the minimum of fuss. (PP-F020)

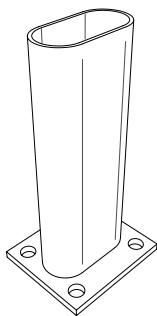
We recommend that for all radiators with EF connection configuration, the minimum height of the foot be at least 150mm. This is to allow for the installation of accessories.

Features and Options

Feet Available For Horizontal Panels

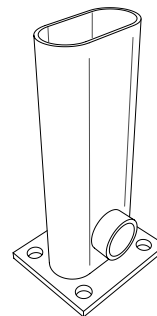
(As products are subject to continued research to improve design and performance, we reserve the right to alter specifications without notice)

Extended Header Foot



PP-F003 (Base Plate 75 x 65)

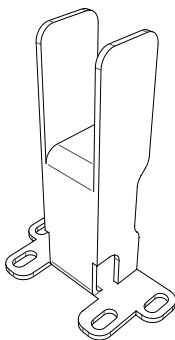
Live Header Foot



PP-F029 (H10, H11, H20, H21 & H22) (Base Plate 75 x 65)
PP-F029B (H22S, H23 & H24) (Base Plate 130 x 65)

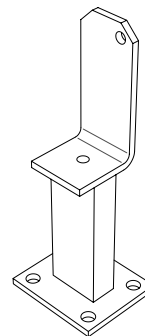
Loose Feet For H11/H12/H21/H22 radiators

Folded Foot



PP-F013 (Base Plate 130 x 65)

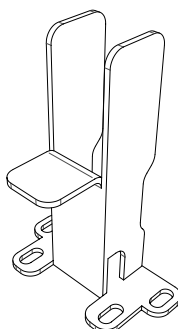
Box Section Foot



PP-F022 (Base Plate 80 x 65)

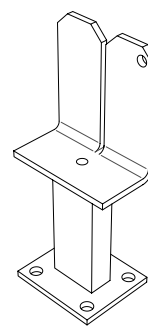
Loose Feet For H22S/H23/H24 radiators

Folded Foot



PP-F014 (Base Plate 130 x 65)

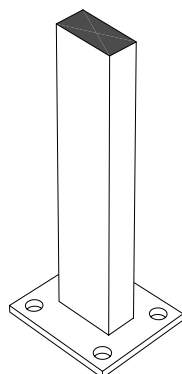
Box Section Foot



PP-F023 (Base Plate 80 x 65)

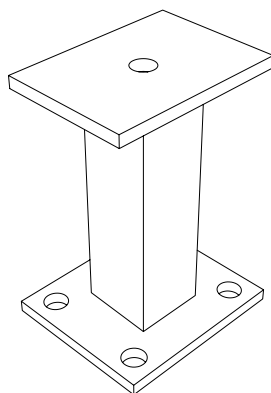
Features and Options

Welded Foot For H10 radiators



PP-F028 (Base Plate 75 x 65)

Welded Foot/Bolt-on Foot For H11/H12/H20/H21/H22/H22S/H23/H24 radiators



PP-F026 Welded Foot (Base Plate 75 x 75)

(See Bolt-on Foot section for relevant codes)

Bolt-on Feet

Bolt-on feet are the same shape/size as the welded foot (PP-F026) - the only difference is that the foot is bolted to a plate, which is welded to the underside of the radiator

Please note that the bolt-on foot arrangement is not available for the H10 model.

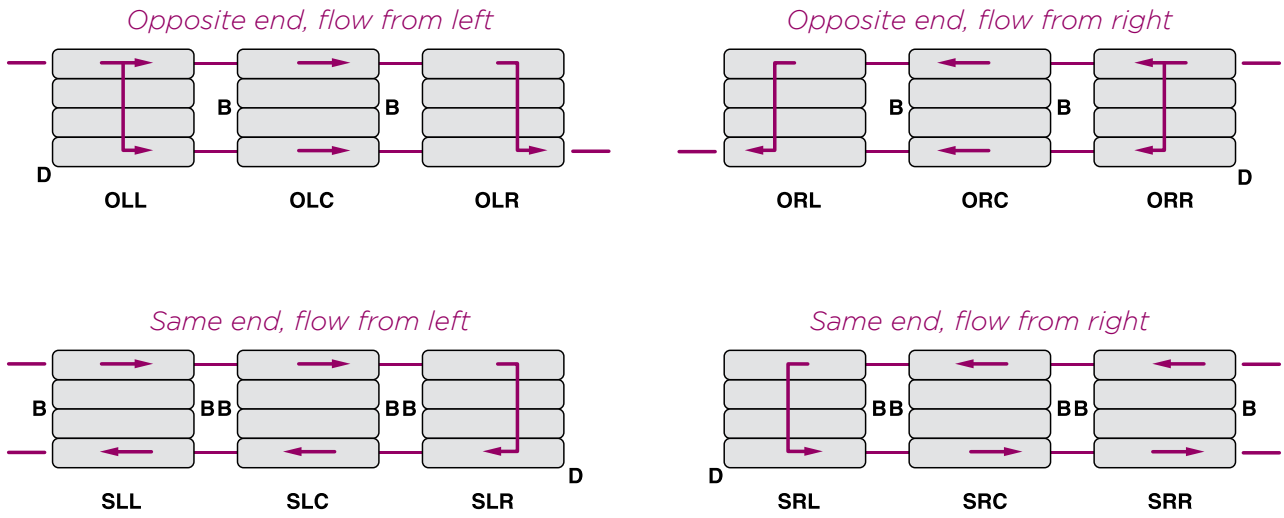
When ordering feet please quote the code provided.

For all our feet we recommend the use of proper floor securing bolts
e.g. Rawl Bolts M8 upwards
Throu' Bolts M8 upwards

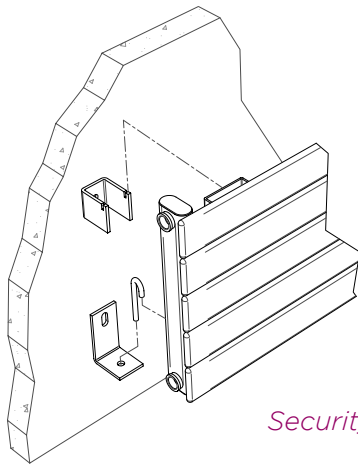
Features and Options

Series Radiators

For series connected radiators, there is a code for each radiator in the series. This code must be used when ordering your 'series' radiators. There are four series configurations recommended below.



B = Baffle, D = Drain

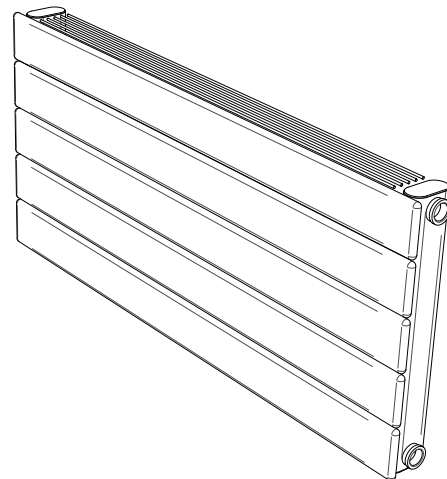


Security Type

Security Mounted Horizontal Panels

We have considerable experience of high security units where safety and robustness are required. We would be pleased to tailor an application to meet your needs.

Shown here is one of our more common security mounting configuration.



Top Grilles

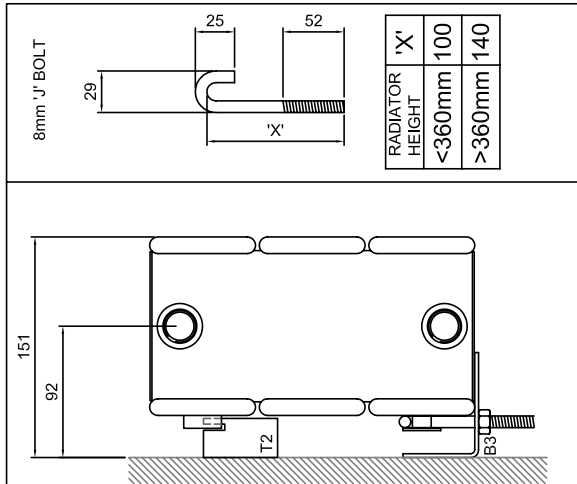
Supplied at the clients request to improve overall compact appearance of the radiator and to hide the convector fin. There are two types of grilles available Domestic and Heavy Duty grilles are provided at the time of ORDER for the following radiator types: H10, H11, H20, H21, H22S.

Retro-fit grilles can be supplied to radiators that have already been supplied/ordered. These grilles look the same as Heavy Duty grilles but can only be supplied for the following radiator types: H11, H21, H22S with reduced fins.

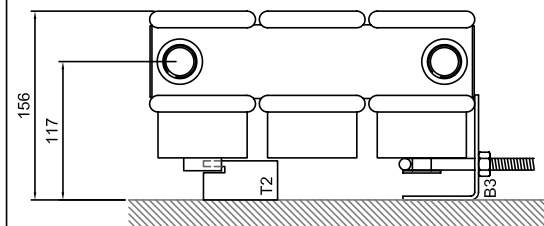
Please note: The convector fin must be reduced for Heavy Duty grilles and Retro-fit grilles. This is to accommodate the brackets which are required to secure the grilles to the radiators.

Security Bracket Details

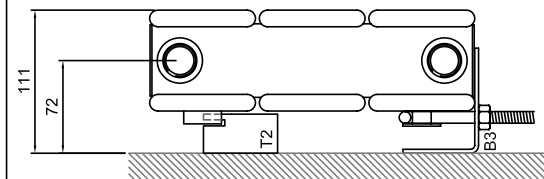
H22S



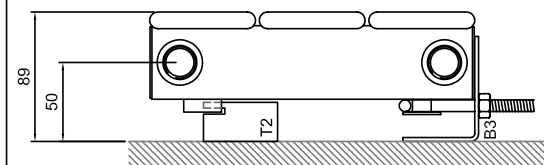
H22



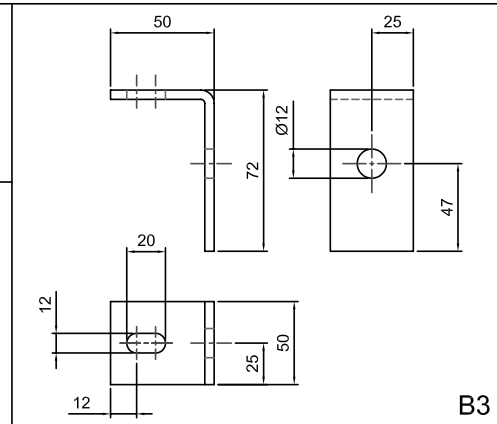
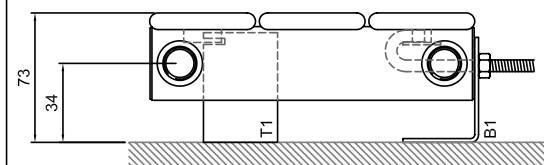
H20/H21



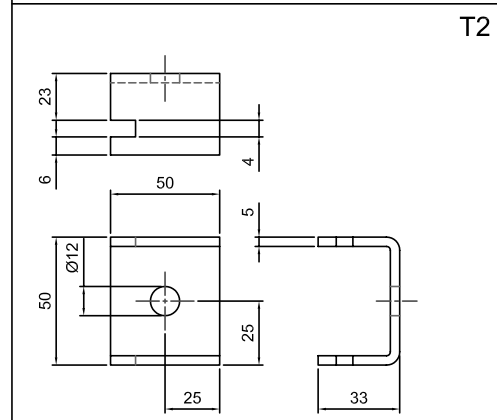
H11



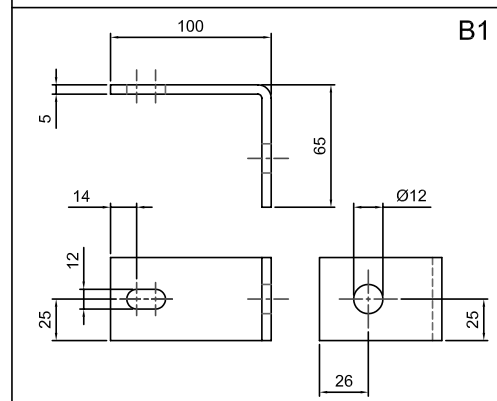
H10



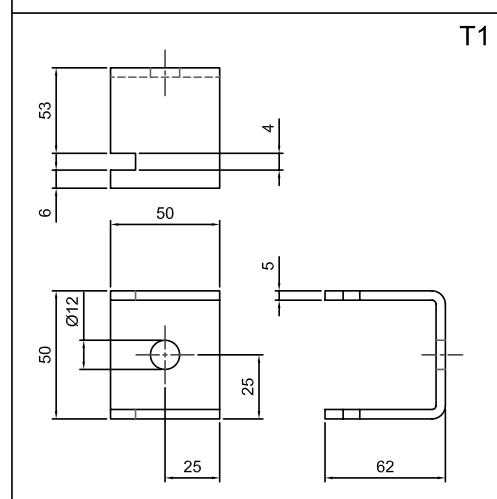
B3



T2



B1



T1

Correction Factors

Emissions at two separate Delta T°Cs ($\Delta T^\circ\text{C}$ s) are provided in the Heat Emission Charts in this catalogue.

Listed below are the correction factors needed to calculate the emission at other Delta Ts (ΔT s) between 10° and 80°C. This is done by correcting your heat emission (from the two) with the appropriate correction factor selected from here.

Example:

Required room temperature = 21°C, flow temperature = 86°C, return temperature = 72°C

How is the emission found?

Solution:

Mean Water Temperature = $(T \text{ flow} + T \text{ return}) / 2 = (86 + 72) / 2 = 79^\circ\text{C}$

DeltaT = Mean Water Temp - Required Room Temp = $79 - 21 = 58^\circ\text{C}$

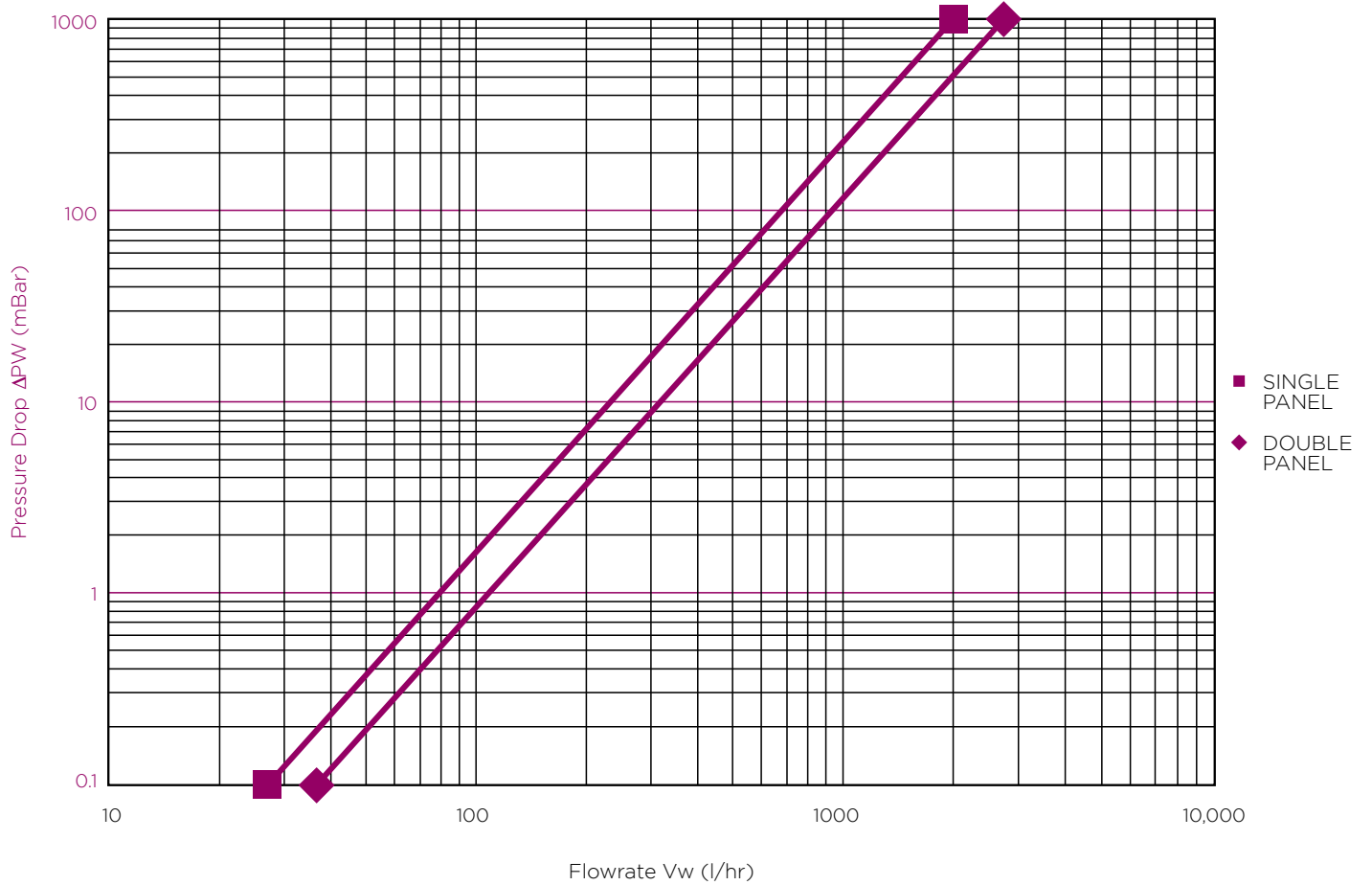
From the tables below, the emission is

1.206 times the emission stated at $\Delta T50^\circ\text{C}$, 1.045 times the emission stated at $\Delta T56^\circ\text{C}$

$\Delta T^\circ\text{C}$	Based on $\Delta T50$	Based on $\Delta T56$
10	0.131	0.114
11	0.148	0.128
12	0.165	0.143
13	0.182	0.158
14	0.200	0.174
15	0.219	0.189
16	0.237	0.206
17	0.256	0.222
18	0.275	0.238
19	0.295	0.255
20	0.314	0.272
21	0.334	0.290
22	0.355	0.307
23	0.375	0.325
24	0.396	0.343
25	0.417	0.361
26	0.438	0.379
27	0.459	0.398
28	0.481	0.417
29	0.503	0.436
30	0.524	0.454
31	0.547	0.474
32	0.569	0.493
33	0.592	0.513
34	0.614	0.532
35	0.637	0.552
36	0.660	0.572
37	0.684	0.592
38	0.707	0.613
39	0.731	0.633
40	0.754	0.654
41	0.778	0.674
42	0.802	0.695
43	0.826	0.716
44	0.851	0.737
45	0.875	0.759

$\Delta T^\circ\text{C}$	Based on $\Delta T50$	Based on $\Delta T56$
46	0.900	0.780
47	0.925	0.801
48	0.950	0.823
49	0.975	0.845
50	1	0.867
51	1.025	0.889
52	1.051	0.911
53	1.076	0.933
54	1.102	0.955
55	1.128	0.977
56	1.154	1
57	1.180	1.023
58	1.206	1.045
59	1.233	1.068
60	1.259	1.091
61	1.286	1.114
62	1.312	1.137
63	1.339	1.160
64	1.366	1.184
65	1.393	1.207
66	1.420	1.231
67	1.447	1.254
68	1.475	1.278
69	1.502	1.302
70	1.530	1.326
71	1.558	1.350
72	1.585	1.374
73	1.613	1.398
74	1.641	1.422
75	1.669	1.446
76	1.697	1.471
77	1.726	1.495
78	1.754	1.520
79	1.782	1.545
80	1.811	1.569

Resistance Diagram



Resistance

How to calculate the Resistance of a Horizontal Panel.

The following is how to find the resistance of a Horizontal Panel radiator type H22s 1500mm long X 433mm high:

First, establish what the output of the panel is.

This is found in the catalogue.

Output from the catalogue is 2703 Watts

In this example the system is operating at $\Delta T 56^{\circ}\text{C}$ (Flow @ 82°C , Return 71°C).

(If the output is for a $\Delta T^{\circ}\text{C}$ other than what is indicated in the emission tables ($\Delta T 50^{\circ}\text{C}$, $\Delta T 56^{\circ}\text{C}$) please use the correction factor tables indicated to get the corrected output.)

C is the Specific Heat Constant (always $4187 \text{ J/Kg}^{\circ}\text{C}$)

Calculate the flow rate as follows:

$$Q = (m) \times (C) \times (\Delta T)$$

$$\text{Output} = (\text{Flow Rate}) (\text{Constant}) (\text{Difference between flow and return temperature})$$

$$\text{Watts} = (l/s) (J/Kg^{\circ}\text{C}) (^{\circ}\text{C})$$

$$2703 = (m) (4187) (11)$$

Therefore

$$m = 2703 / ((4187) \times (11))$$

$$m = 0.058688147 \text{ Litres per Second (l/s) multiply by 3600 to convert to litres per hour}$$

$$m = 211.3 \text{ litres per hour (l/hr)}$$

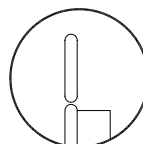
Now, lookup the resistance diagram

Reading from the chart this gives a value of 4mBar or 0.4Kpa

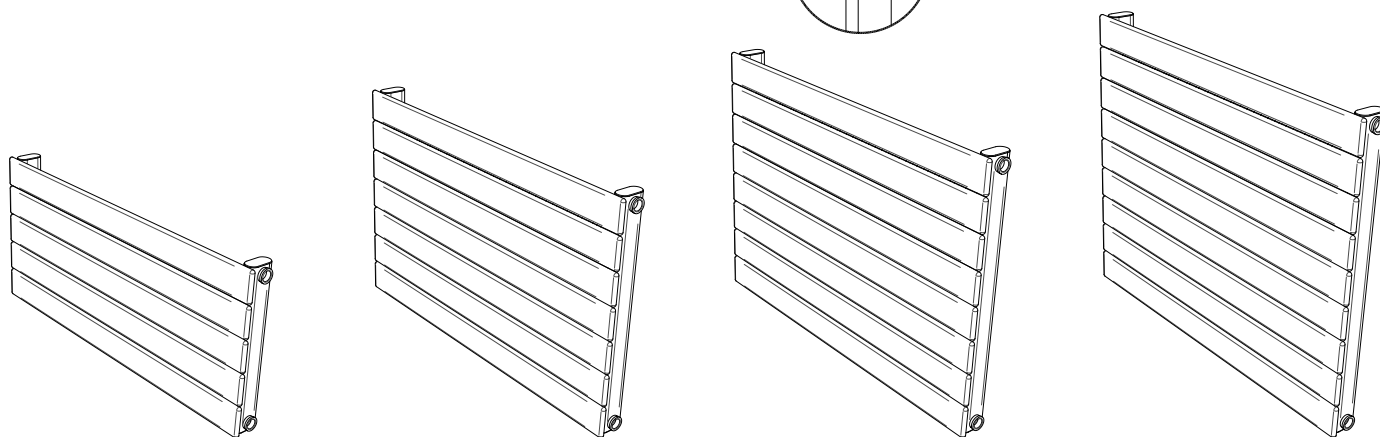
H22S is a double panel radiator so the reading is taken from the double panel line, H20, H21, H22, H23, H24.
For single panel radiators take the reading from the single panel line, H10, H11, H12.

Radiators Available From Stock

Single Horizontal Panel Radiators - H11



Note: reduced fin applies to all stock single panel radiators



Type H11 Height 360mm		
Fin Height 288mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	379	439
800	506	586
1000	632	732
1200	758	879
1400	885	1025
1600	1011	1172
1800	1138	1318
2000	1264	1465
2200	1390	1610
2400	1517	1758

Type H11 Height 505mm		
Fin Height 433mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	490	568
800	654	758
1000	817	947
1200	980	1136
1400	1144	1326
1600	1307	1515
1800	1471	1704
2000	1634	1894
2200	1797	2083
2400	1961	2273

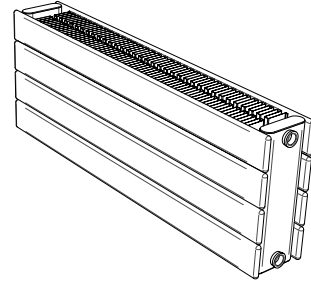
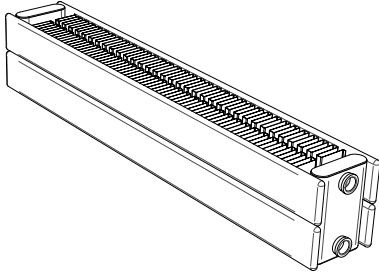
Type H11 Height 578mm		
Fin Height 505mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	551	638
800	734	851
1000	918	1064
1200	1102	1277
1400	1285	1490
1600	1469	1702
1800	1652	1915
2000	1836	2128
2200	2020	2341
2400	2203	2554

Type H11 Height 650mm		
Fin Height 578mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	614	712
800	819	949
1000	1024	1187
1200	1229	1424
1400	1434	1662
1600	1638	1899
1800	1843	2136
2000	2048	2374
2200	2253	2611
2400	2458	2848

Note: all single panel stock radiators are supplied with 4 x 1/2" (15mm) BSP connections and with 1/2" (15mm) blank plug & vent.

Radiators Available From Stock

Low Line Double Panel Radiators - H22S

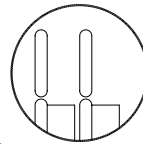
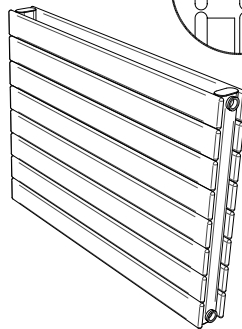
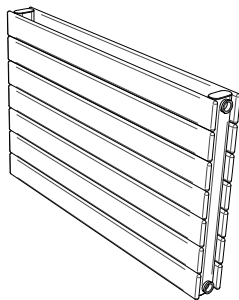


Type H22S Height 143mm		
Fin Height 143mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
800	527	611
1000	659	764
1200	791	917
1400	923	1069
1600	1054	1222
1800	1186	1375
2000	1318	1528
2400	1582	1833

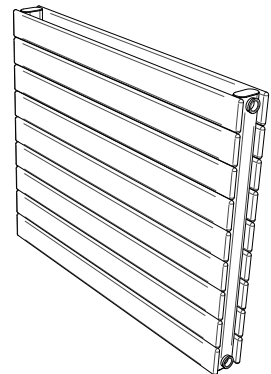
Type H22S Height 288mm		
Fin Height 288mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	682	790
1000	1136	1317
1200	1363	1580
1400	1590	1843
1600	1818	2107
1800	2045	2370

Supplied with 4 x 1/2" (15mm) BSP connections. ABCD connections are standard on stock range. Loose feet @ 100mm are available for these options.

Double Panel Radiators - H22



Note: reduced fin applicable



Type H22 Height 505mm		
Fin Height 433mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	980	1136
800	1307	1515
1000	1634	1894
1200	1961	2273
1400	2288	2651
1600	2614	3030
1800	2941	3409
2000	3268	3788

Type H22 Height 578mm		
Fin Height 505mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
800	1446	1675
1000	1807	2094
1200	2168	2513
1400	2530	2932
1600	2891	3351
1800	3253	3770

Type H22 Height 650mm		
Fin Height 578mm		
Heat Emission (watts)		
Length	$\Delta T50$	$\Delta T56$
600	1181	1369
800	1575	1826
1000	1969	2282
1200	2363	2738
1400	2757	3195
1600	3150	3651
1800	3544	4108

Supplied with 4 x 1/2" (15mm) BSP connections. ABCD connections are standard on stock range.

How to Order

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Derrylin, Co. Fermanagh, Northern Ireland, BT92 9AU

For contact numbers please see below.

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