# Merriott

DESIGN RADIATORS

## *VERTICAL PANEL RADIATORS TECHNICAL INFORMATION*

July 2012

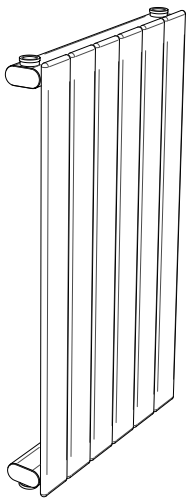
# CONTENTS

# Overview of Vertical Panel Range

## V10

**Single Vertical Panel**

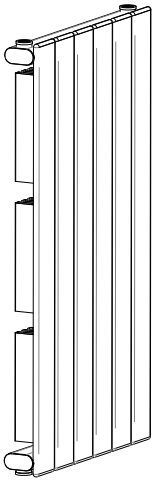
**No Convector Fin**



## V11

**Single Vertical Panel**

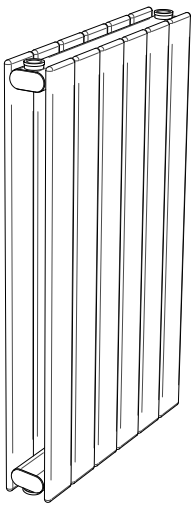
**Single Convector Fin**



## V20

**Double Vertical Panel**

**No Convector Fin**



**Height:** Ranges from 1200mm to 3000mm in increments of 100mm
**Length:** Ranges from 288mm to 868mm in increments of 72.5mm

# 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 vertical panel radiators offer emissions ranging from 371 watts to 1791 watts per metre at $\Delta$T50°C. Comprehensive sizing and emission charts are included in this catalogue.

## Height
Vertical panel radiators are available as standard in heights from 1200mm to 3000mm, in 100mm increments. Other heights down to a minimum of 500mm are also available.

## Length
The length of the radiator increases in increments of 72.5mm, from a minimum of 288mm through to 868mm, for both double and single panel radiators.

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

## Warranty
Merriott Radiators Vertical 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 tube, 70mm x 11mm, with a standard thickness of 1.5mm.

## 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 $^1/_2$" (15mm) Bottom, Bottom Opposite Ends (BBOE) with blank and air vent 1/2" (15mm)
Other connections available include:
(TBSE, TBOE, BOE, TOE & TTOE)

Combinations must be stated at time of ordering.

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

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

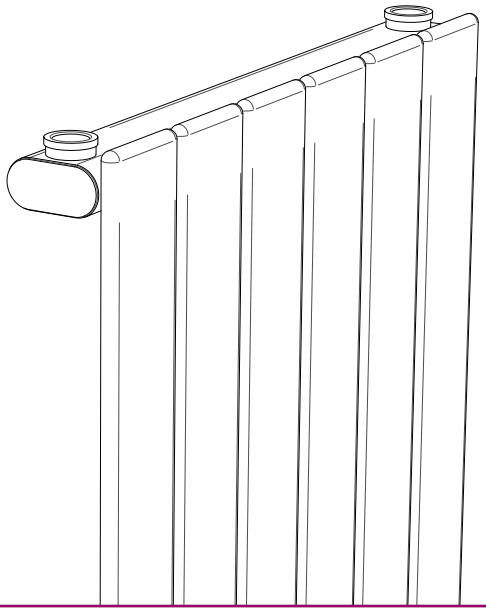
# Data Chart

### Technical data per element

## V10

| Heights | Dry Weight | Water Content | Surface area |
|---|---|---|---|
| mm | Kg | Ltr | sqm |
| 1200 | 2.56 | 0.71 | 0.21 |
| 1300 | 2.75 | 0.75 | 0.22 |
| 1400 | 2.94 | 0.78 | 0.24 |
| 1500 | 3.13 | 0.82 | 0.25 |
| 1600 | 3.32 | 0.85 | 0.27 |
| 1700 | 3.51 | 0.89 | 0.28 |
| 1800 | 3.70 | 0.93 | 0.30 |
| 1900 | 3.89 | 1.01 | 0.31 |
| 2000 | 4.08 | 1.09 | 0.33 |
| 2100 | 4.26 | 1.18 | 0.34 |
| 2200 | 4.45 | 1.26 | 0.36 |
| 2300 | 4.64 | 1.34 | 0.37 |
| 2400 | 4.83 | 1.43 | 0.39 |
| 2500 | 5.01 | 1.51 | 0.40 |
| 2600 | 5.20 | 1.59 | 0.42 |
| 2700 | 5.39 | 1.67 | 0.43 |
| 2800 | 5.58 | 1.76 | 0.45 |
| 2900 | 5.77 | 1.84 | 0.47 |
| 3000 | 5.95 | 1.93 | 0.48 |

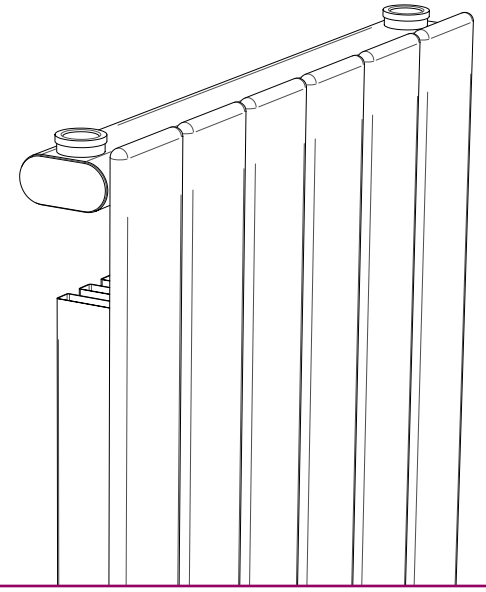
V10



## V11

| Heights | Dry Weight | Water Content | Surface area |
|---|---|---|---|
| mm | Kg | Ltr | sqm |
| 1200 | 3.98 | 0.71 | 0.81 |
| 1300 | 4.24 | 0.75 | 0.83 |
| 1400 | 4.50 | 0.78 | 0.85 |
| 1500 | 4.76 | 0.82 | 0.86 |
| 1600 | 4.76 | 0.85 | 1.00 |
| 1700 | 5.33 | 0.89 | 1.01 |
| 1800 | 5.64 | 0.93 | 1.03 |
| 1900 | 5.95 | 1.01 | 1.04 |
| 2000 | 6.26 | 1.09 | 1.24 |
| 2100 | 6.31 | 1.18 | 1.26 |
| 2200 | 6.93 | 1.26 | 1.27 |
| 2300 | 7.75 | 1.34 | 1.29 |
| 2400 | 7.79 | 1.43 | 1.48 |
| 2500 | 7.83 | 1.51 | 1.50 |
| 2600 | 7.86 | 1.59 | 1.51 |
| 2700 | 7.90 | 1.67 | 1.53 |
| 2800 | 7.94 | 1.76 | 1.54 |
| 2900 | 7.98 | 1.84 | 1.56 |
| 3000 | 8.02 | 1.93 | 1.57 |

V11



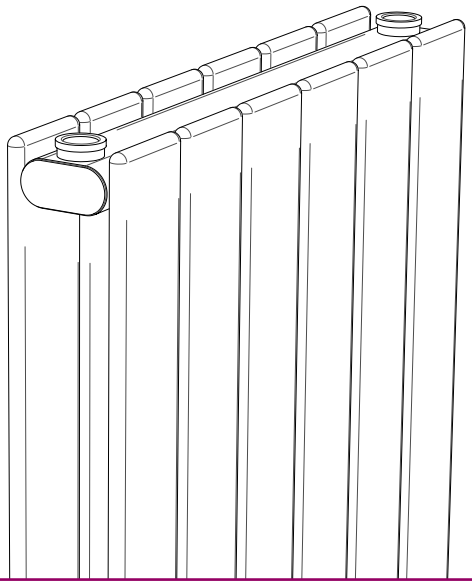
# Data Chart

### Technical data per element

## V20

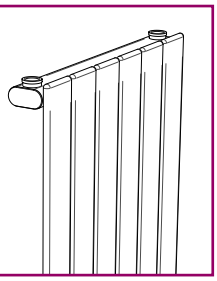
| Heights | Dry Weight | Water Content | Surface area |
|---|---|---|---|
| mm | Kg | Ltr | sqm |
| **1200** | 4.83 | 1.46 | 0.39 |
| **1300** | 5.21 | 1.57 | 0.42 |
| **1400** | 5.55 | 1.72 | 0.45 |
| **1500** | 5.94 | 1.81 | 0.48 |
| **1600** | 6.29 | 1.96 | 0.51 |
| **1700** | 6.67 | 2.06 | 0.54 |
| **1800** | 7.03 | 2.20 | 0.57 |
| **1900** | 7.40 | 2.31 | 0.60 |
| **2000** | 7.78 | 2.44 | 0.63 |
| **2100** | 7.96 | 2.50 | 0.66 |
| **2200** | 8.14 | 2.55 | 0.69 |
| **2300** | 8.34 | 2.62 | 0.72 |
| **2400** | 8.54 | 2.68 | 0.75 |
| **2500** | 9.30 | 2.93 | 0.79 |
| **2600** | 10.06 | 3.17 | 0.82 |
| **2700** | 10.44 | 3.29 | 0.85 |
| **2800** | 10.82 | 3.41 | 0.88 |
| **2900** | 11.20 | 3.53 | 0.91 |
| **3000** | 11.58 | 3.65 | 0.94 |

V20



# Heat Emissions

V10



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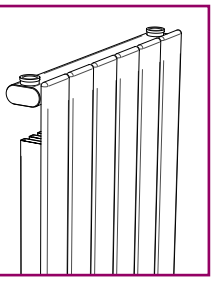

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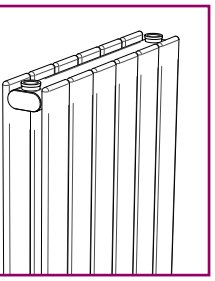
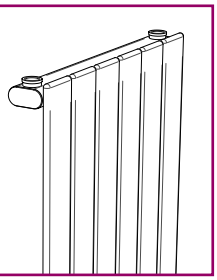


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1200 | 288 | 429 | 497 | 551 | 639 | 667 | 773 |
| | 360 | 526 | 610 | 679 | 787 | 817 | 947 |
| | 433 | 623 | 722 | 807 | 935 | 966 | 1120 |
| | 505 | 716 | 830 | 932 | 1080 | 1110 | 1286 |
| | 578 | 810 | 939 | 1058 | 1226 | 1255 | 1455 |
| | 650 | 902 | 1045 | 1180 | 1368 | 1396 | 1618 |
| | 723 | 993 | 1151 | 1304 | 1511 | 1537 | 1781 |
| | 795 | 1083 | 1255 | 1425 | 1652 | 1675 | 1941 |
| | 868 | 1176 | 1363 | 1542 | 1787 | 1819 | 2108 |

V10



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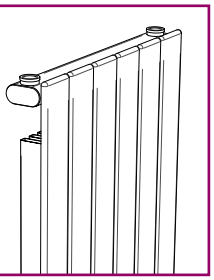

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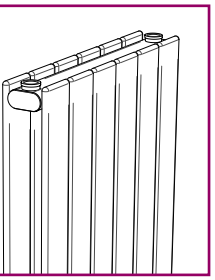
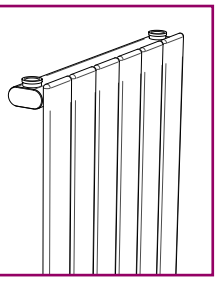


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1300 | 288 | 462 | 535 | 585 | 678 | 717 | 831 |
| | 360 | 566 | 656 | 721 | 836 | 878 | 1018 |
| | 433 | 670 | 777 | 857 | 993 | 1038 | 1203 |
| | 505 | 771 | 894 | 990 | 1147 | 1193 | 1383 |
| | 578 | 872 | 1011 | 1123 | 1302 | 1349 | 1563 |
| | 650 | 970 | 1124 | 1253 | 1452 | 1500 | 1739 |
| | 723 | 1069 | 1239 | 1384 | 1604 | 1652 | 1915 |
| | 795 | 1165 | 1350 | 1512 | 1752 | 1800 | 2086 |
| | 868 | 1266 | 1467 | 1637 | 1897 | 1955 | 2266 |

# Heat Emissions

V10



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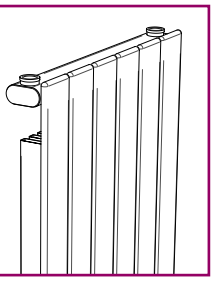

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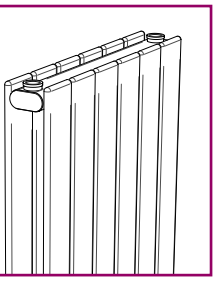
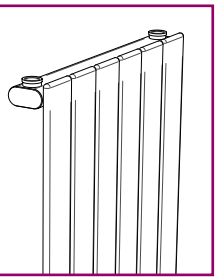


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1400 | 288 | 494 | 573 | 619 | 717 | 767 | 889 |
| | 360 | 606 | 702 | 763 | 884 | 939 | 1088 |
| | 433 | 717 | 831 | 907 | 1051 | 1110 | 1286 |
| | 505 | 825 | 956 | 1047 | 1213 | 1276 | 1479 |
| | 578 | 933 | 1081 | 1188 | 1377 | 1442 | 1671 |
| | 650 | 1038 | 1203 | 1325 | 1536 | 1604 | 1859 |
| | 723 | 1144 | 1326 | 1464 | 1697 | 1766 | 2047 |
| | 795 | 1247 | 1445 | 1600 | 1854 | 1925 | 2231 |
| | 868 | 1355 | 1570 | 1731 | 2006 | 2090 | 2422 |

V10



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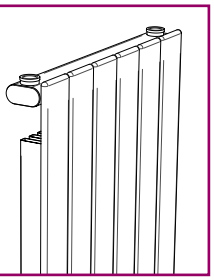

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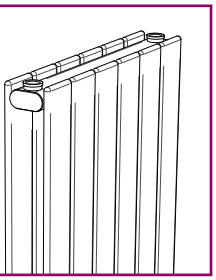
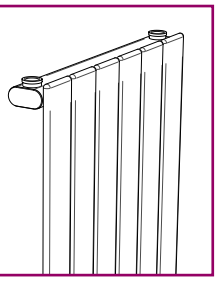


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1500 | 288 | 527 | 611 | 653 | 757 | 816 | 946 |
| | 360 | 646 | 749 | 804 | 932 | 999 | 1158 |
| | 433 | 764 | 885 | 956 | 1108 | 1181 | 1369 |
| | 505 | 879 | 1019 | 1103 | 1278 | 1358 | 1574 |
| | 578 | 995 | 1153 | 1252 | 1451 | 1535 | 1779 |
| | 650 | 1107 | 1283 | 1397 | 1619 | 1707 | 1978 |
| | 723 | 1219 | 1413 | 1543 | 1788 | 1880 | 2179 |
| | 795 | 1329 | 1540 | 1686 | 1954 | 2049 | 2375 |
| | 868 | 1444 | 1674 | 1825 | 2115 | 2225 | 2579 |

# Heat Emissions

V10



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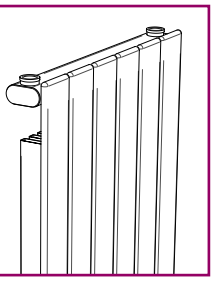
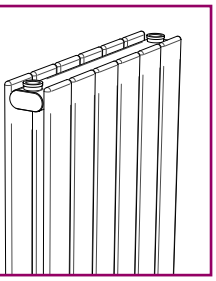
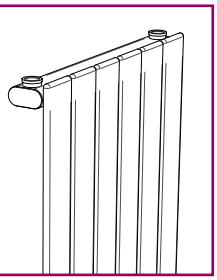


V20



| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1600 | 288 | 559 | 648 | 686 | 795 | 865 | 1003 |
| | 360 | 686 | 795 | 845 | 979 | 1059 | 1227 |
| | 433 | 811 | 940 | 1005 | 1165 | 1252 | 1451 |
| | 505 | 933 | 1081 | 1160 | 1344 | 1440 | 1669 |
| | 578 | 1056 | 1224 | 1316 | 1525 | 1627 | 1886 |
| | 650 | 1175 | 1362 | 1469 | 1703 | 1810 | 2098 |
| | 723 | 1294 | 1500 | 1622 | 1880 | 1993 | 2310 |
| | 795 | 1411 | 1635 | 1773 | 2055 | 2172 | 2517 |
| | 868 | 1533 | 1777 | 1918 | 2223 | 2359 | 2734 |

V10



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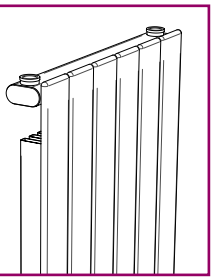
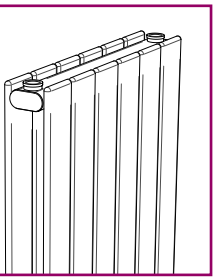


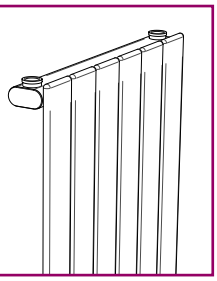
V20



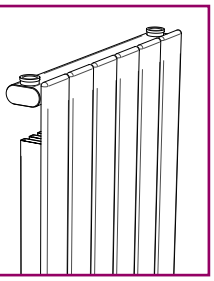
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1700 | 288 | 592 | 686 | 720 | 834 | 914 | 1059 |
| | 360 | 726 | 841 | 887 | 1028 | 1119 | 1297 |
| | 433 | 859 | 996 | 1054 | 1222 | 1323 | 1533 |
| | 505 | 988 | 1145 | 1216 | 1409 | 1522 | 1764 |
| | 578 | 1117 | 1295 | 1380 | 1599 | 1719 | 1992 |
| | 650 | 1243 | 1441 | 1540 | 1785 | 1912 | 2216 |
| | 723 | 1370 | 1588 | 1701 | 1971 | 2106 | 2441 |
| | 795 | 1494 | 1732 | 1859 | 2155 | 2295 | 2660 |
| | 868 | 1623 | 1881 | 2012 | 2332 | 2493 | 2889 |

# Heat Emissions

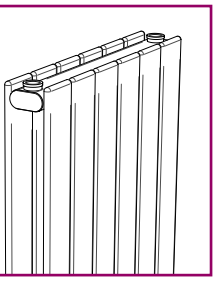
V10



V11

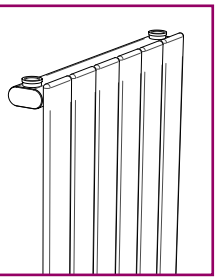


V20

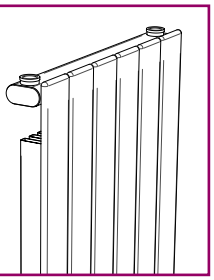


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1800 | 288 | 625 | 724 | 753 | 873 | 963 | 1116 |
| | 360 | 765 | 887 | 928 | 1076 | 1179 | 1366 |
| | 433 | 906 | 1050 | 1102 | 1277 | 1394 | 1616 |
| | 505 | 1042 | 1208 | 1273 | 1475 | 1603 | 1858 |
| | 578 | 1178 | 1365 | 1444 | 1674 | 1811 | 2099 |
| | 650 | 1311 | 1519 | 1611 | 1867 | 2014 | 2334 |
| | 723 | 1445 | 1675 | 1780 | 2063 | 2218 | 2571 |
| | 795 | 1576 | 1827 | 1945 | 2254 | 2418 | 2802 |
| | 868 | 1712 | 1984 | 2105 | 2440 | 2626 | 3044 |

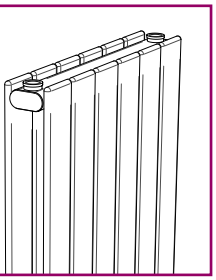
V10



V11



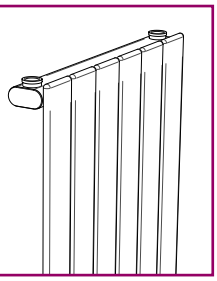
V20



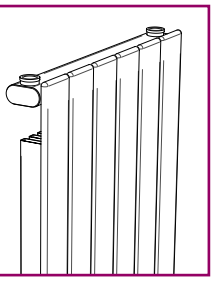
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 1900 | 288 | 658 | 763 | 786 | 911 | 1012 | 1173 |
| | 360 | 805 | 933 | 969 | 1123 | 1239 | 1436 |
| | 433 | 953 | 1105 | 1151 | 1334 | 1465 | 1697 |
| | 505 | 1097 | 1271 | 1329 | 1540 | 1684 | 1952 |
| | 578 | 1240 | 1437 | 1508 | 1748 | 1903 | 2206 |
| | 650 | 1380 | 1599 | 1683 | 1951 | 2116 | 2452 |
| | 723 | 1521 | 1763 | 1859 | 2155 | 2331 | 2702 |
| | 795 | 1658 | 1922 | 2031 | 2354 | 2540 | 2944 |
| | 868 | 1801 | 2087 | 2198 | 2547 | 2759 | 3198 |

# Heat Emissions

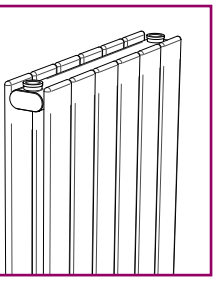
V10



V11

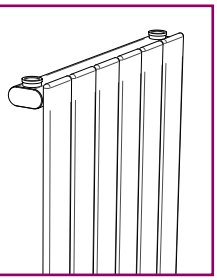


V20

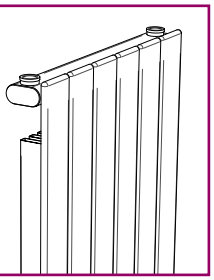


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2000 | 288 | 690 | 800 | 820 | 950 | 1061 | 1230 |
| | 360 | 845 | 979 | 1010 | 1171 | 1299 | 1506 |
| | 433 | 1000 | 1159 | 1200 | 1391 | 1535 | 1779 |
| | 505 | 1151 | 1334 | 1385 | 1605 | 1765 | 2046 |
| | 578 | 1302 | 1509 | 1572 | 1822 | 1994 | 2311 |
| | 650 | 1449 | 1679 | 1754 | 2033 | 2218 | 2571 |
| | 723 | 1596 | 1850 | 1938 | 2246 | 2443 | 2831 |
| | 795 | 1740 | 2017 | 2117 | 2454 | 2662 | 3085 |
| | 868 | 1890 | 2191 | 2291 | 2655 | 2891 | 3351 |

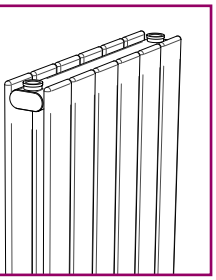
V10



V11



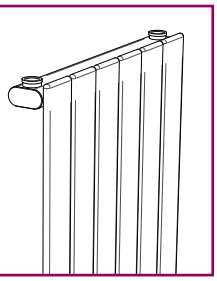
V20



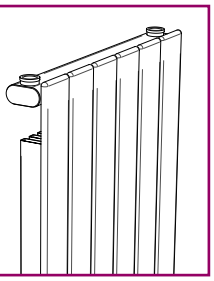
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2100 | 288 | 723 | 838 | 853 | 989 | 1110 | 1286 |
| | 360 | 886 | 1027 | 1051 | 1218 | 1358 | 1574 |
| | 433 | 1048 | 1215 | 1249 | 1448 | 1606 | 1861 |
| | 505 | 1206 | 1398 | 1442 | 1671 | 1846 | 2139 |
| | 578 | 1364 | 1581 | 1636 | 1896 | 2086 | 2418 |
| | 650 | 1518 | 1759 | 1826 | 2116 | 2320 | 2689 |
| | 723 | 1672 | 1938 | 2017 | 2338 | 2555 | 2961 |
| | 795 | 1823 | 2113 | 2204 | 2554 | 2784 | 3227 |
| | 868 | 1980 | 2295 | 2384 | 2763 | 3024 | 3505 |

# Heat Emissions

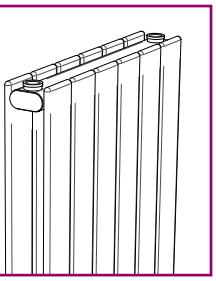
V10



V11

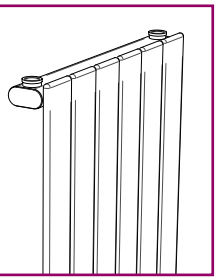


V20

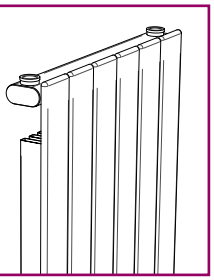


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2200 | 288 | 755 | 875 | 887 | 1028 | 1158 | 1342 |
| | 360 | 926 | 1073 | 1092 | 1266 | 1417 | 1642 |
| | 433 | 1096 | 1270 | 1298 | 1504 | 1676 | 1942 |
| | 505 | 1260 | 1460 | 1498 | 1736 | 1926 | 2232 |
| | 578 | 1426 | 1653 | 1700 | 1970 | 2177 | 2523 |
| | 650 | 1586 | 1838 | 1897 | 2199 | 2421 | 2806 |
| | 723 | 1748 | 2026 | 2096 | 2429 | 2666 | 3090 |
| | 795 | 1906 | 2209 | 2290 | 2654 | 2906 | 3368 |
| | 868 | 2070 | 2399 | 2478 | 2872 | 3156 | 3658 |

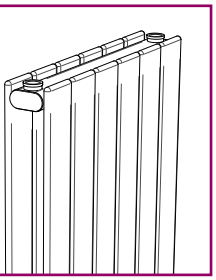
V10



V11



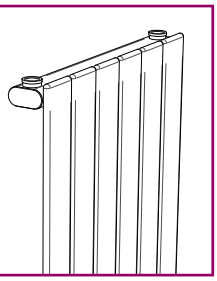
V20



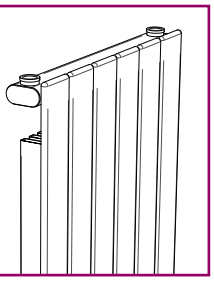
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2300 | 288 | 789 | 914 | 920 | 1066 | 1207 | 1399 |
| | 360 | 967 | 1121 | 1133 | 1313 | 1477 | 1712 |
| | 433 | 1144 | 1326 | 1347 | 1561 | 1746 | 2024 |
| | 505 | 1316 | 1525 | 1555 | 1802 | 2007 | 2326 |
| | 578 | 1488 | 1725 | 1764 | 2044 | 2268 | 2629 |
| | 650 | 1656 | 1919 | 1969 | 2282 | 2523 | 2924 |
| | 723 | 1825 | 2115 | 2175 | 2521 | 2778 | 3220 |
| | 795 | 1990 | 2306 | 2377 | 2755 | 3028 | 3509 |
| | 868 | 2161 | 2505 | 2572 | 2981 | 3288 | 3811 |

# Heat Emissions

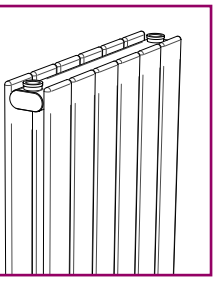
V10



V11

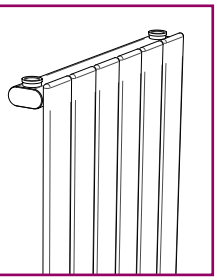


V20

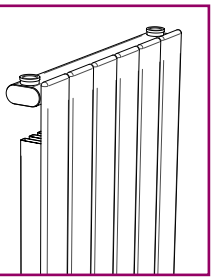


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2400 | 288 | 822 | 953 | 954 | 1106 | 1255 | 1455 |
| | 360 | 1007 | 1167 | 1175 | 1362 | 1536 | 1780 |
| | 433 | 1191 | 1380 | 1396 | 1618 | 1816 | 2105 |
| | 505 | 1371 | 1589 | 1612 | 1868 | 2087 | 2419 |
| | 578 | 1550 | 1796 | 1829 | 2120 | 2359 | 2734 |
| | 650 | 1725 | 1999 | 2041 | 2366 | 2624 | 3041 |
| | 723 | 1901 | 2203 | 2255 | 2614 | 2889 | 3348 |
| | 795 | 2073 | 2403 | 2464 | 2856 | 3149 | 3650 |
| | 868 | 2252 | 2610 | 2666 | 3090 | 3420 | 3964 |

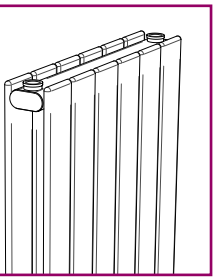
V10



V11



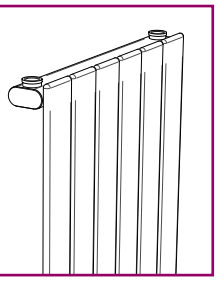
V20



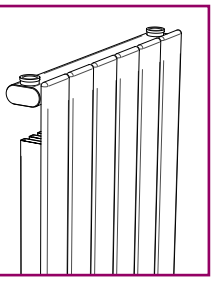
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2500 | 288 | 855 | 991 | 988 | 1145 | 1304 | 1511 |
| | 360 | 1048 | 1215 | 1217 | 1411 | 1596 | 1850 |
| | 433 | 1240 | 1437 | 1446 | 1676 | 1886 | 2186 |
| | 505 | 1427 | 1654 | 1669 | 1934 | 2168 | 2513 |
| | 578 | 1613 | 1869 | 1894 | 2195 | 2454 | 2844 |
| | 650 | 1795 | 2080 | 2114 | 2450 | 2725 | 3158 |
| | 723 | 1978 | 2293 | 2335 | 2706 | 3001 | 3478 |
| | 795 | 2157 | 2500 | 2551 | 2957 | 3271 | 3791 |
| | 868 | 2358 | 2733 | 2761 | 3200 | 3552 | 4117 |

# Heat Emissions

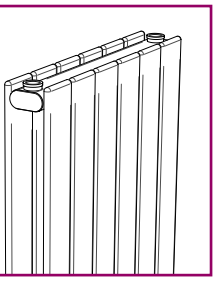
V10



V11

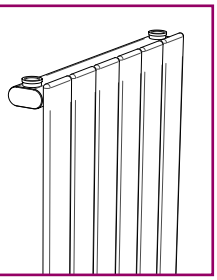


V20

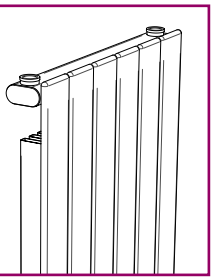


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2600 | 288 | 888 | 1029 | 1022 | 1184 | 1352 | 1567 |
| | 360 | 1088 | 1261 | 1259 | 1459 | 1655 | 1918 |
| | 433 | 1288 | 1493 | 1496 | 1734 | 1956 | 2267 |
| | 505 | 1482 | 1718 | 1727 | 2002 | 2248 | 2605 |
| | 578 | 1676 | 1942 | 1959 | 2270 | 2541 | 2945 |
| | 650 | 1865 | 2162 | 2186 | 2534 | 2826 | 3275 |
| | 723 | 2055 | 2382 | 2415 | 2799 | 3112 | 3607 |
| | 795 | 2241 | 2597 | 2639 | 3059 | 3392 | 3931 |
| | 868 | 2464 | 2856 | 2856 | 3310 | 3683 | 4269 |

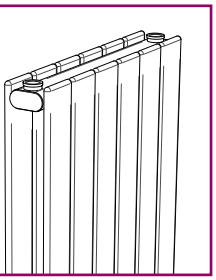
V10



V11



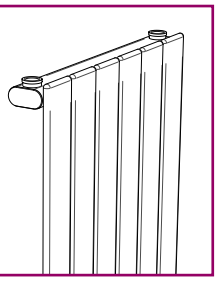
V20



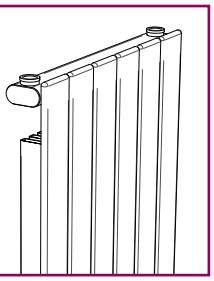
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2700 | 288 | 922 | 1069 | 1056 | 1224 | 1400 | 1623 |
| | 360 | 1130 | 1310 | 1301 | 1508 | 1714 | 1987 |
| | 433 | 1337 | 1550 | 1546 | 1792 | 2026 | 2348 |
| | 505 | 1538 | 1783 | 1785 | 2069 | 2329 | 2699 |
| | 578 | 1739 | 2016 | 2025 | 2347 | 2632 | 3050 |
| | 650 | 1936 | 2244 | 2260 | 2619 | 2927 | 3392 |
| | 723 | 2133 | 2472 | 2496 | 2893 | 3224 | 3737 |
| | 795 | 2326 | 2696 | 2728 | 3162 | 3514 | 4073 |
| | 868 | 2541 | 2945 | 2951 | 3420 | 3815 | 4422 |

# Heat Emissions

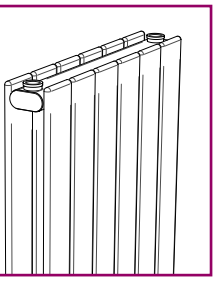
V10



V11

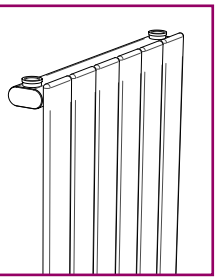


V20

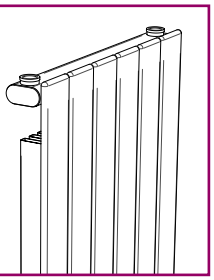


| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2800 | 288 | 955 | 1107 | 1090 | 1263 | 1448 | 1678 |
| | 360 | 1171 | 1357 | 1343 | 1557 | 1773 | 2055 |
| | 433 | 1385 | 1605 | 1596 | 1850 | 2096 | 2429 |
| | 505 | 1594 | 1847 | 1843 | 2136 | 2409 | 2792 |
| | 578 | 1802 | 2089 | 2091 | 2423 | 2723 | 3156 |
| | 650 | 2006 | 2325 | 2333 | 2704 | 3028 | 3509 |
| | 723 | 2210 | 2561 | 2577 | 2987 | 3335 | 3865 |
| | 795 | 2410 | 2793 | 2816 | 3264 | 3635 | 4213 |
| | 868 | 2618 | 3034 | 3047 | 3531 | 3947 | 4575 |

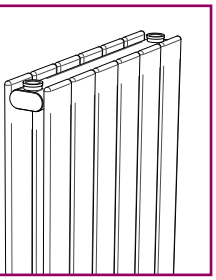
V10



V11



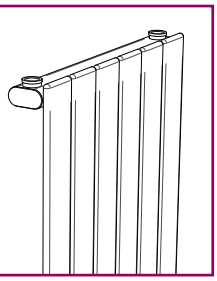
V20



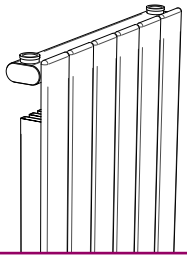
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 2900 | 288 | 989 | 1146 | 1125 | 1304 | 1497 | 1735 |
| | 360 | 1213 | 1406 | 1386 | 1606 | 1832 | 2123 |
| | 433 | 1434 | 1662 | 1647 | 1909 | 2166 | 2510 |
| | 505 | 1651 | 1914 | 1901 | 2203 | 2490 | 2886 |
| | 578 | 1866 | 2163 | 2157 | 2500 | 2814 | 3261 |
| | 650 | 2077 | 2407 | 2407 | 2790 | 3130 | 3628 |
| | 723 | 2289 | 2653 | 2659 | 3082 | 3447 | 3995 |
| | 795 | 2496 | 2893 | 2906 | 3368 | 3757 | 4354 |
| | 868 | 2711 | 3142 | 3144 | 3644 | 4079 | 4728 |

# Heat Emissions

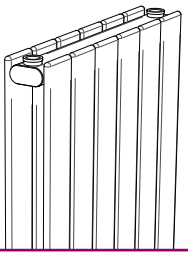
V10



V11



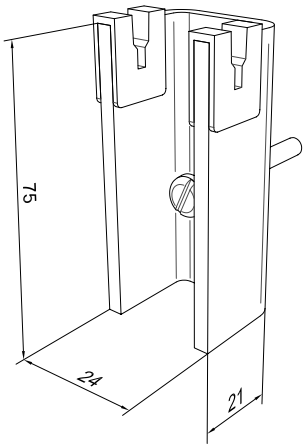
V20



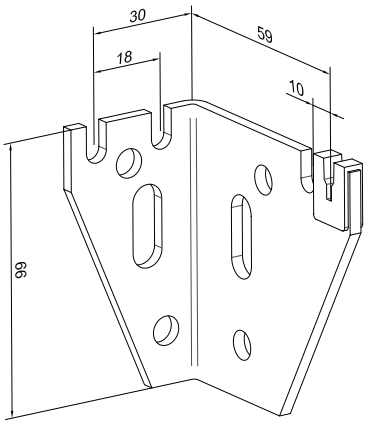
| Style: | | V10 | | V11 | | V20 | |
|---|---|---|---|---|---|---|---|
| | | Heat Emmission (Watts) | | Heat Emmission (Watts) | | Heat Emmission (Watts) | |
| Height (mm) | Length (mm) | ΔT50 | ΔT56 | ΔT50 | ΔT56 | ΔT50 | ΔT56 |
| 3000 | 288 | 1023 | 1186 | 1160 | 1344 | 1545 | 1791 |
| | 360 | 1254 | 1453 | 1429 | 1656 | 1891 | 2192 |
| | 433 | 1483 | 1719 | 1698 | 1968 | 2236 | 2592 |
| | 505 | 1707 | 1978 | 1960 | 2272 | 2570 | 2979 |
| | 578 | 1930 | 2237 | 2224 | 2578 | 2905 | 3367 |
| | 650 | 2148 | 2490 | 2482 | 2877 | 3231 | 3745 |
| | 723 | 2367 | 2743 | 2741 | 3177 | 3558 | 4124 |
| | 795 | 2581 | 2991 | 2996 | 3472 | 3878 | 4495 |
| | 868 | 2804 | 3250 | 3241 | 3756 | 4211 | 4881 |

# Applications

## Wall Brackets

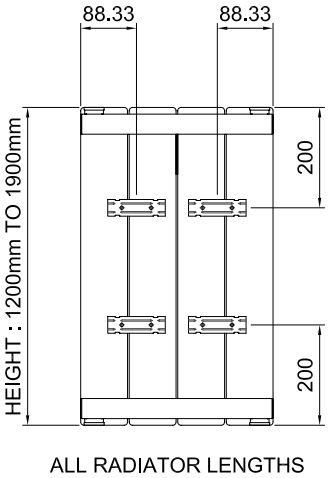



‘A2’ Type Bracket

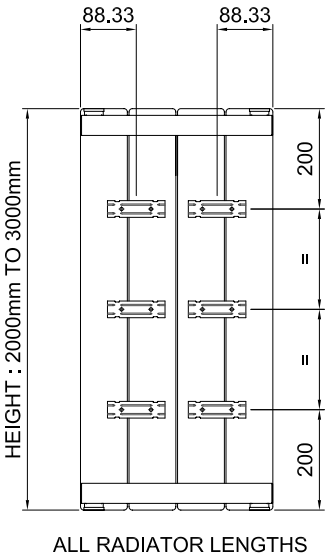



‘LN1’ Type Bracket

## All Types



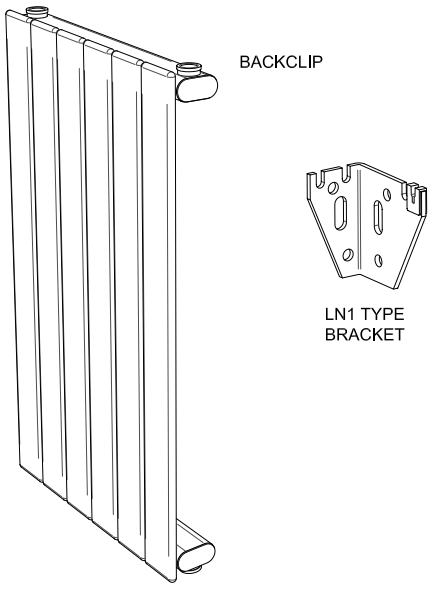

## Bracket Locations




*All dimensions are in millimetres*

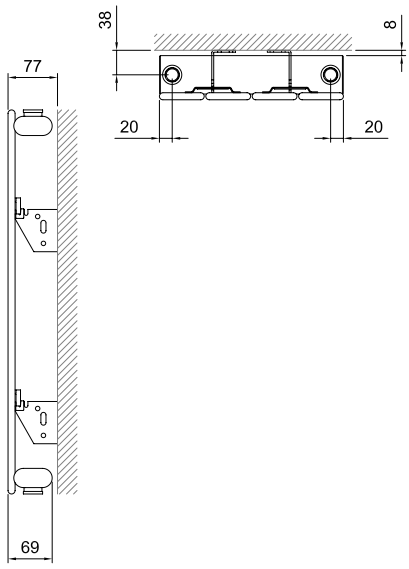
# Applications

## V10

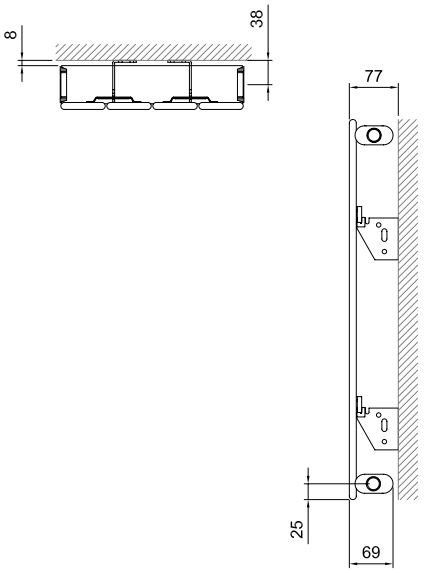



**Piping & Connection Details**

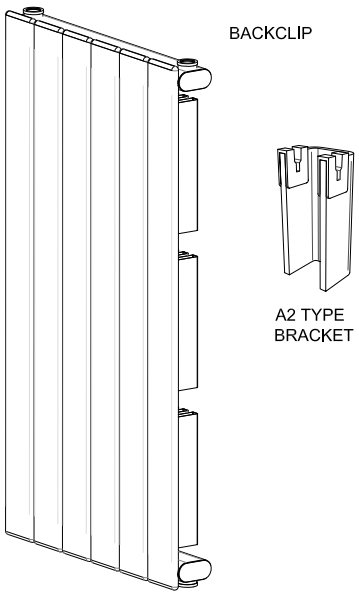
### EF (GH) Connections



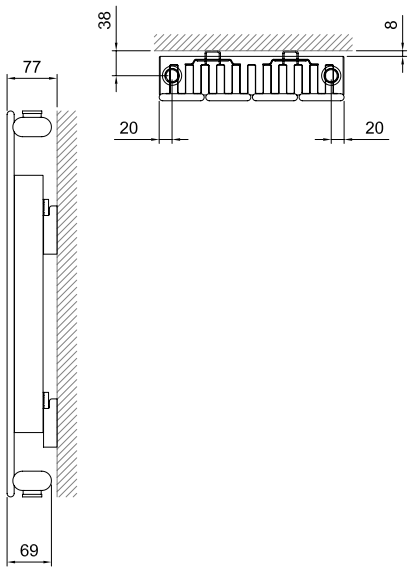

### BD (AC) Connections



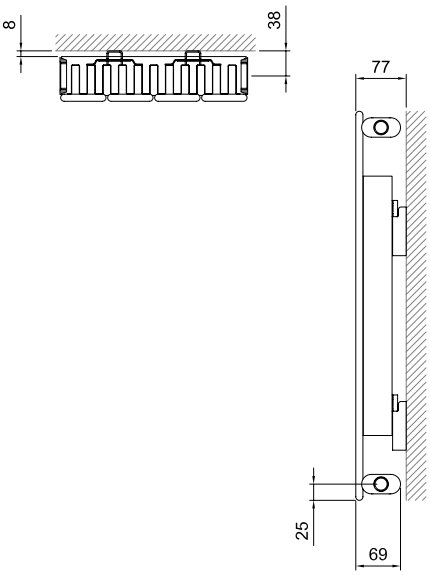

## V11




### EF (GH) Connections



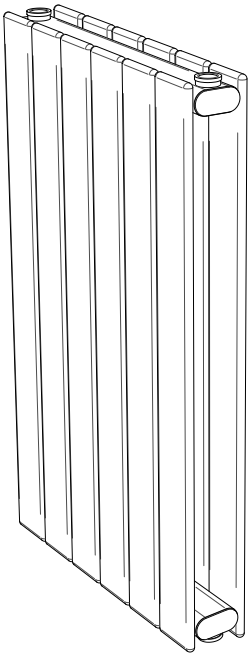

### BD (AC) Connections




*All dimensions are in millimetres*

# Applications

## V20

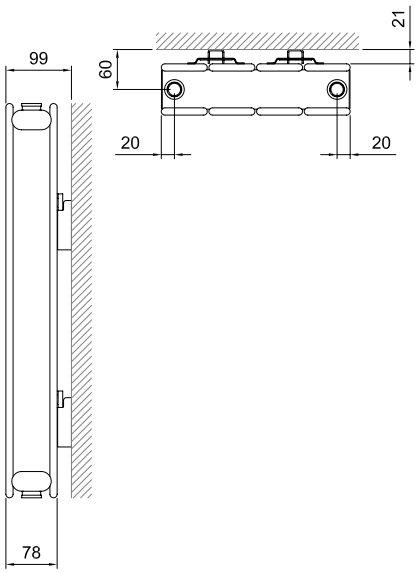


BACKCLIP

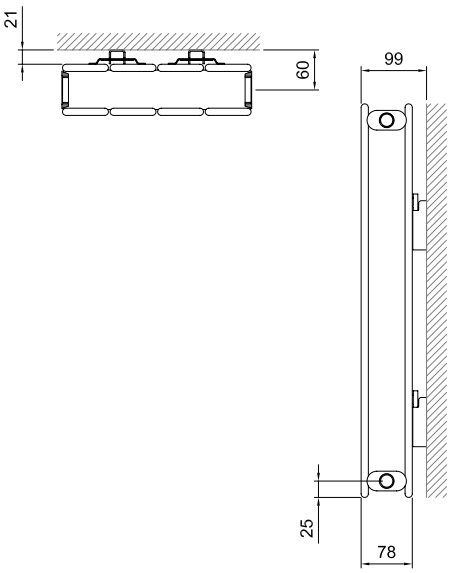
A2 TYPE
BRACKET

**Piping & Connection Details**

### EF (GH) Connections




### BD (AC) Connections




*All dimensions are in millimetres*

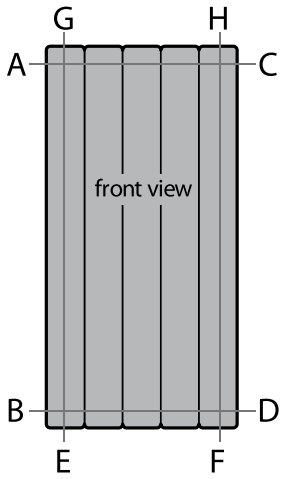
# Features and Options

**Merriott Radiators** offers a wide range of additional features and options for our standard radiators. A selection of these is 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 EF.
EF denotes flow at E or F.

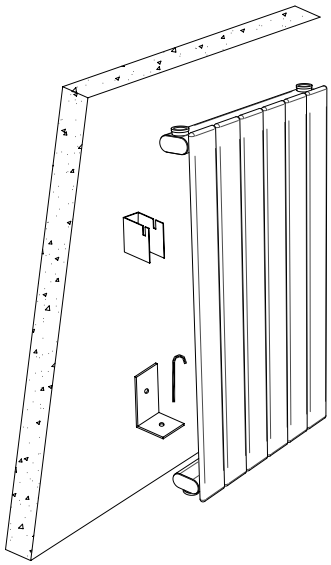
Other connection configurations, which must be specified at order stage, include: AB, AD, CD, CB, GH.



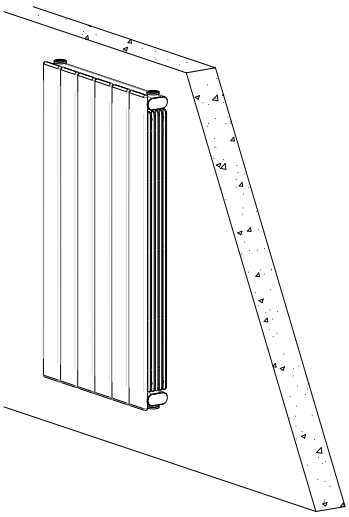

## Security Mounted Vertical Panels

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 brackets.



*Security Type*

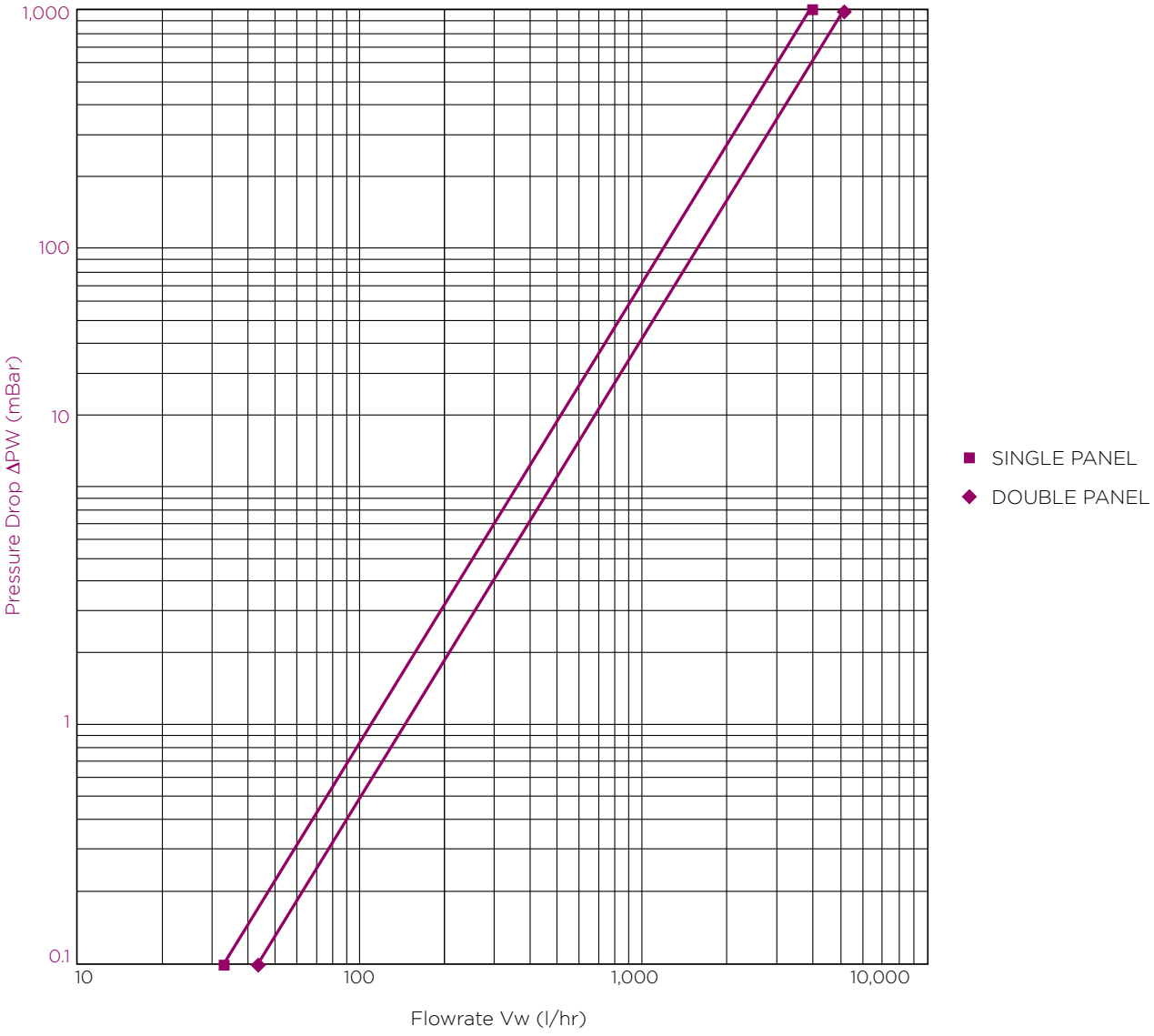


## Side Grilles

Vertical Panel radiators can be supplied with side grilles at the Clients request at the time of ORDER only, to improve overall compact appearance and hide the convector fins. There are two types of grilles available, Domestic and Heavy Duty.

**Please note the following must be stated at the time of order :**
- Connection details
- Flow & Return

# Resistance Diagram



# Resistance

## How to calculate the Resistance of a Vertical Panel.

The following is how to find the resistance of a Vertical panel
radiator type V10 2000mm high X 723mm long:

First, establish what the output of the panel is.
This is found in the catalogue. (For this particular example please see page 10.)
Output from the catalogue is 1596 Watts

In this example the system is operating at ΔT50°C
(Flow @ 80°C, Return 62°C).

(If the output is for a ΔT°C other than what is indicated in the emission tables (ΔT50°C, ΔT56°C)
please use the correction factor tables indicated to get the corrected output.)

C is the Specific Heat Constant (always 4187 J/Kg°C)

### Calculate the flow rate as follows:

| | | | | | |
|---|---|---|---|---|---|
| Q = | (m) | x | (C) | x | (ΔT) |
| Output = | (Flow Rate) | | (Constant) | | (Difference between flow and return temperature) |
| Watts = | (l/s) | | (J/Kg°C) | | (°C) |
| 1596 = | (m) | | (4187) | | (18) |

Therefore

m = 1596 / ((4187) x (18))

m = 0.021176657 Litres per Second (l/s) multiply by 3600 to convert to litres per hour

m = 76.24 litres per hour (l/hr)

## Now, lookup the resistance diagram

Reading from the chart this gives a value of 0.5m Bar or 0.05Kpa.

For the V10 & V11 radiators read from the single panel line.
For the V20 radiators read from the double panel line.

# Correction Factors

Emissions at two separate Delta T°Cs (ΔT°Cs) 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 (ΔTs) between 10°C and 80°C.
This is done by correcting your heat emission with the appropriate correction factor selected from the table below.

## Example:

Say, required room temperature = 21°C, flow temperature = 86°C, return temperature = 72°C
*How is the emission found?*

## Solution:

Mean Water Temperature = (T flow + T return) / 2 = (86 + 72) / 2 = 79°C
DeltaT = Mean Water Temp - Required Room Temp = 79 - 21 = 58°C

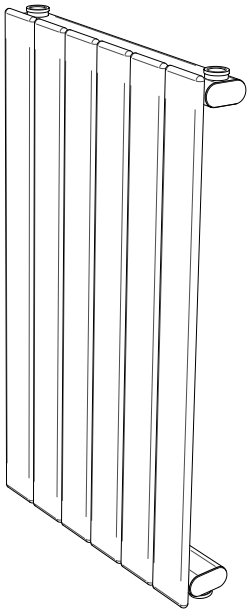
**From the tables below, the emission is**
1.213 times the emission stated at ΔT50°C or 1.047 times the emission stated at ΔT56°C, etc.

| ΔT(°C) | Based on ΔT50 | Based on ΔT56 |
|---|---|---|
| **10** | 0.123 | 0.107 |
| **11** | 0.140 | 0.121 |
| **12** | 0.156 | 0.135 |
| **13** | 0.174 | 0.150 |
| **14** | 0.191 | 0.165 |
| **15** | 0.209 | 0.180 |
| **16** | 0.227 | 0.196 |
| **17** | 0.246 | 0.212 |
| **18** | 0.265 | 0.229 |
| **19** | 0.284 | 0.245 |
| **20** | 0.304 | 0.262 |
| **21** | 0.324 | 0.279 |
| **22** | 0.344 | 0.297 |
| **23** | 0.364 | 0.314 |
| **24** | 0.385 | 0.332 |
| **25** | 0.406 | 0.350 |
| **26** | 0.427 | 0.369 |
| **27** | 0.449 | 0.387 |
| **28** | 0.471 | 0.406 |
| **29** | 0.493 | 0.425 |
| **30** | 0.515 | 0.444 |
| **31** | 0.537 | 0.464 |
| **32** | 0.560 | 0.483 |
| **33** | 0.583 | 0.503 |
| **34** | 0.606 | 0.523 |
| **35** | 0.629 | 0.543 |
| **36** | 0.652 | 0.563 |
| **37** | 0.676 | 0.583 |
| **38** | 0.700 | 0.604 |
| **39** | 0.724 | 0.625 |
| **40** | 0.748 | 0.646 |
| **41** | 0.773 | 0.667 |
| **42** | 0.797 | 0.688 |
| **43** | 0.822 | 0.709 |
| **44** | 0.847 | 0.731 |
| **45** | 0.872 | 0.753 |

| ΔT(°C) | Based on ΔT50 | Based on ΔT56 |
|---|---|---|
| **46** | 0.897 | 0.774 |
| **47** | 0.923 | 0.796 |
| **48** | 0.948 | 0.818 |
| **49** | 0.974 | 0.841 |
| **50** | 1 | 0.863 |
| **51** | 1.026 | 0.886 |
| **52** | 1.052 | 0.908 |
| **53** | 1.079 | 0.931 |
| **54** | 1.105 | 0.954 |
| **55** | 1.132 | 0.977 |
| **56** | 1.159 | 1 |
| **57** | 1.186 | 1.023 |
| **58** | 1.213 | 1.047 |
| **59** | 1.240 | 1.070 |
| **60** | 1.267 | 1.094 |
| **61** | 1.295 | 1.118 |
| **62** | 1.323 | 1.141 |
| **63** | 1.350 | 1.165 |
| **64** | 1.378 | 1.190 |
| **65** | 1.406 | 1.214 |
| **66** | 1.435 | 1.238 |
| **67** | 1.463 | 1.263 |
| **68** | 1.491 | 1.287 |
| **69** | 1.520 | 1.312 |
| **70** | 1.549 | 1.337 |
| **71** | 1.578 | 1.361 |
| **72** | 1.606 | 1.386 |
| **73** | 1.636 | 1.411 |
| **74** | 1.665 | 1.437 |
| **75** | 1.694 | 1.462 |
| **76** | 1.723 | 1.487 |
| **77** | 1.753 | 1.513 |
| **78** | 1.783 | 1.538 |
| **79** | 1.812 | 1.564 |
| **80** | 1.842 | 1.590 |
| | | |

# Radiators Available From Stock

In response to growing customer demand we are pleased to carry the extensive **Merriott Radiators Stock Range** of radiators which is available for immediate despatch. Please contact us at the following phone/fax numbers to arrange delivery.



| Type V10 | | |
|---|---|---|
| Height 2000mm | | |
| Heat Emission (Watts) | | |
| **Length** | **ΔT50** | **ΔT56** |
| **288** | 690 | 800 |
| **433** | 1000 | 1159 |
| **578** | 1302 | 1509 |
| **650** | 1449 | 1679 |
| **723** | 1596 | 1850 |
| **868** | 1890 | 2191 |

All stock radiators are made to suit EF connections, this product is supplied with a 1/2" (15mm) blank and air vent fittings.
The connections are 1/2" BSP

**Please note:**
All stock radiators can be reversed to have (flow) or (return), @ G or H, (drain) @ E & F connections.

# How to Order

## Merriott Radiators Ireland

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

For contact numbers please see below.

Email : sales@merriott-radiators.com
Web : www.merriott-radiators.com

## Manufacturing Facility Newport

Merriott Radiators, Imperial Park, Newport, Gwent NP10 8ZY

Tel : +44 (0) 1633 657 000
Fax : +44 (0) 1633 657 084

## Irish Enquires

**Quotes:**

Tel : +44 (0) 28 6774 2606
Fax: +353 (0) 49 9525231

**Orders:**

Tel : +44 (0) 28 6774 2535
Fax: +353 (0) 49 9525231

## UK Enquires

**Quotes:**

Tel : +44 (0) 28 6774 2549
Fax: +44 (0) 28 6774 8107

**Orders:**

Tel : +44 (0) 28 6774 2503
Fax: +44 (0) 28 6774 8107

## Merriott Radiators Ireland

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

For contact numbers please see below.

Email : sales@merriott-radiators.com
Web : www.merriott-radiators.com

## Manufacturing Facility Newport

Merriott Radiators, Imperial Park, Newport, Gwent NP10 8ZY

Tel : +44 (0) 1633 657 000
Fax : +44 (0) 1633 657 084

## Irish Enquires

**Quotes:**

Tel : +44 (0) 28 6774 2606
Fax: +353 (0) 49 9525231

**Orders:**

Tel : +44 (0) 28 6774 2535
Fax: +353 (0) 49 9525231

## UK Enquires

**Quotes:**

Tel : +44 (0) 28 6774 2549
Fax: +44 (0) 28 6774 8107

**Orders:**

Tel : +44 (0) 28 6774 2503
Fax: +44 (0) 28 6774 8107